Yes, I can: Feeling connected to others increases perceived consumer effectiveness and socially responsible behavior

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Abstract

Previous research has shown that the perceived effectiveness of one’s contribution to the collective good is a crucial determinant of socially responsible behavior. In this paper, we suggest that an individual’s sense of connectedness to others is an important driver of perceived consumer effectiveness. The more one feels connected to others, the more one believes that his or her actions have a substantial impact on the collective good. As a result, individuals who feel more connected to others are more likely to engage in socially responsible behavior. In Study 1, one’s sense of connectedness was positively linked to socially responsible consumption, and the effect was mediated by perceived consumer effectiveness. In experimental studies, when participants were induced to feel more connected to others, they considered their individual consumption choices more impactful (Study 2). Moreover, they engaged more in socially responsible behavior both in terms of effort exerted to support a pro-environmental organization (Study 3) and by making financial contributions for a social cause (Study 4).

Keywords: sense of connectedness; interdependence; socially responsible behavior; perceived consumer effectiveness; social marketing.
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Going green, purchasing fair trade products, making energy conservation efforts, recycling, donating money to disaster relief or to fight hunger and poverty; these, and many other consumer choices, represent socially responsible behaviors, or individual contributions to the collective good. Such contributions are desirable but are often costly or inconvenient for the consumer. The perceived ability of an individual to make a difference is a crucial factor in one’s decision to contribute (Ellen, Wiener, & Cobb-Walgren, 1991). Therefore, understanding the factors affecting perceived individual ability to make a difference is crucial to promote socially responsible behavior. In this paper, we suggest that the extent to which a person believes that his or her actions are an effective contribution to the collective good depends on one’s sense of social connectedness. Enhancing one’s sense of connectedness, therefore, could be a promising avenue for increasing perceived ability to make a difference and socially responsible consumer behavior.

The contribution of this research is twofold. First, we offer a more comprehensive account of the psychological process involved in explaining the effect of the sense of connectedness on socially responsible behavior. Previous research has suggested that individuals with a strong sense of connectedness to others are more likely to hold prosocial values (e.g., Triandis, 1995), but the effects on the perceived effectiveness of one’s actions have not been examined. Whereas differences in social values may explain partially the link between the sense of connectedness and socially responsible behavior (e.g., Gärling, Fujii, Gärling, & Jakobsson, 2003; Kelley & Thibaut, 1978; Van Lange, Van Vugt, Meertens, & Ruiter, 1998), prosocial values do
not necessarily translate into socially responsible behavior (Crosby, Gill, & Taylor, 1981; Kollmus & Agyeman, 2002). We suggest that one’s perceived ability to make a difference is an overlooked but highly consequential mediator of the effect of one’s sense of connectedness on behavior. In particular, drawing on the literature on overlapping mental representations of self and others (e.g., Aron & Aron, 1986; Aron, Aron, Tudor, & Nelson, 1991; Smith, Coats, & Walling, 1999), we propose that feeling connected to others makes individuals project their own behavioral intentions onto others, which magnifies the perceived impact of one’s actions. Whereas it may be difficult to “mold” one’s values, we show that priming the sense of connectedness leads to an increase in the perceived effectiveness of one’s actions. Second, our results offer practical suggestions for promoting socially responsible behavior. In particular, making the togetherness and connectedness of individuals more salient may help induce individual actions targeted at large-scale societal outcomes, from financial donations to exerting effort for a good cause.

Socially responsible behavior

_Socially responsible behaviors_ are “actions taken by individuals to enhance societal well-being (do good) or to avoid harmful consequences for society (do no harm)” (Crilly, Schneider, & Zollo, 2008, p. 176). Typically, the situations in which society as a whole calls on its individual members to contribute to the common good, such as preserving the environment or setting up a fair system of economic exchange, can be construed as social dilemmas. These are situations in which the individual and the collective interest collide (Dawes, 1980). As a result of this conflict, people may be tempted to refrain from actions that are beneficial to society, but are personally costly (Messick & Brewer, 1983). Moreover, the issues at stake typically unfold on a large scale, requiring the contributions of many to enable change (Bandura, 2000). Thus,
promoting individual socially responsible behavior is crucial for addressing societal challenges.

Research on socially responsible behavior and social dilemmas has devoted much attention to the role of social values. Social values refer to the weight people place on the collective interest when making decisions (Messick & McClintonck, 1968). It seems sensible to assume that stronger prosocial values are associated with more prosocial behavior. Indeed, this relationship has been demonstrated in various settings, such as choosing public transport in order to reduce road congestion, helping behavior, and intentions to behave pro-environmentally (Gärling et al., 2003; McClintock & Allison, 1989; Nauta, De Dreu, & van der Vaart, 2002; Van Lange et al, 1998). However, other studies found little relationship between concern for collective goals and socially responsible behavior (Crosby et al., 1981; Ritchie & Gordon, 1985; Scott, 1977). These inconsistent results suggest that caring for the collective good does not guarantee that the individual behaves in a socially responsible manner. Indeed, Kollmus and Agyeman (2002) argued that the effect of social values is mostly limited to increasing ideological backing for and the endorsement of policy changes in favor of the collective wellbeing. To produce a change in actual behavior, other conditions rather than a mere shift in values are necessary (see also, Wiener & Doescher, 1991).

An important reason for the divide between social values and socially responsible 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 et al., 1991; Jackson, 2005; Stoll-Kleemann, O'Riordan, & Jaeger, 2001). Even when they are aware of a problem, individuals may perceive that they have ‘‘neither the prime responsibility to take action, nor the agency to have much effect’’ (Owens, 2000, p.1143). Thus, perceived effectiveness of individual action, which captures individuals’
perceptions of their ability to make a difference on the larger scale through their individual choices (Hinkle, Fox-Cardamone, Haseleu, Brown, & Irwin, 1996; Kinnear, Taylor, & Ahmed, 1974), is a necessary precursor of socially responsible behavior. The idea echoes classic theories of motivation (Vroom, 1964), according to which an individual will engage in socially responsible behavior only to the extent that s/he feels that his or her behavior can make a difference (see also Bandura, 1986; Gist & Mitchell, 1992). For example, in a study of social activism, only those individuals who perceived their actions as effective acted on their beliefs (Hinkle et al., 1996). Similarly, Fiske (1987) showed that perceived effectiveness differentiated inactive versus active participants in an anti-war movement.

Likewise, Roberts (1996) emphasized the crucial role of perceived consumer effectiveness defined as the perceived ability to exert a positive impact on society and the environment through individual consumption choices. Various studies have demonstrated that greater perceived effectiveness helps translate consumer’s concern for collective issues into individual action (Axelrod & Lehman, 1993; Berger & Corbin, 1992; Grob, 1995; Lee & Holden, 1999; Thøgersen, 1999). Given the importance of perceived consumer effectiveness in driving socially responsible behavior, understanding its antecedents becomes especially important. In this paper, we suggest that the sense of connectedness to others is an important determinant of perceived consumer effectiveness and thus a trigger of socially responsible behavior.

**Sense of connectedness**

We define the sense of connectedness as the perceived unity with other people. People tend to feel connected to others with whom they share a group membership (Tajfel, 1982) or other (sometimes trivial) attributes, such as a birthday (e.g., Cialdini & De Nicholas, 1989). Moreover, individuals fundamentally differ in the extent to which
they define themselves in terms of connectedness and interdependence with others (Markus & Kitayama, 1991).

A stronger sense of connectedness to others motivates striving to fit in social groups, fulfill one’s social roles, and engage in actions that promote social harmony and respect for social norms (Cross, Bacon, & Morris, 2000; Singelis, 1994). It is also associated with greater salience of social values and of the collective good (Triandis, 1995; Utz, 2004). Furthermore, previous studies have demonstrated a direct link between the sense of connectedness to others and self-report environmental conservation behavior (Arnocky, Stroink, & DeCicco, 2007; McCarty & Shrum, 2001), recycling behavior (McCarty & Shrum, 2001), and donations to charity (Karremans, Van Lange, & Holland, 2005). The implicit or explicit assumption in those studies has been that the causal mechanism underlying the effect of connectedness is a larger commitment to further the interest of one’s social group or society (Kelley & Thibaut, 1978). However, as noted above, embracing social values is usually insufficient to motivate socially responsible behavior. Therefore, it is likely that an additional mechanism plays a role in explaining the effect of connectedness on socially responsible behavior. We propose that an increase in perceived effectiveness of one’s action makes up that additional mechanism.

When individuals feel connected to others, their sense of self is broadened to include others (Aron & Aron, 1986), and the characteristics of self and others become shared (Aron, Aron, & Smollan, 1992) creating an overlap in cognitions about the self and others (Aron, Aron, Tudor, & Nelson, 1991; Goldstein & Cialdini, 2007). Importantly, the merging of self and others does not only occur in the context of close dyadic relationships (e.g., Aron et al., 1992), but also in the context of large groups of individuals, where a sense of unity with others may reduce the distinction between self
and the group (Kinket & Verkuyten, 1997; Rosenberg, 1986; Tropp & Wright, 2001). The cognitive and affective overlap between self and others leads to viewing the self as an interchangeable exemplar of a collective (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

Whereas the vicarious self-perception model (Goldstein & Cialdini, 2007) suggests that the sense of connectedness to others is associated with attributing the characteristics of others to self (see also Coats, Smith, Claypool, & Banner, 2000; Smith & Henry, 1996), the connectionist model (Smith et al., 1999) implies that the opposite is also true. That is, overlapping mental representations of the self and others make individuals use their own characteristics to infer the characteristics of others. Individuals will use their own intentions and behavior to make inferences about others’ intentions and likely behavior, similar to how they tend to project their social values onto others (Iedema & Poppe, 1995). Consequently, one’s individual action will be perceived as shared by others and symbolic of others’ actions.

We predict that such projected expectations regarding others’ actions will magnify the perceived impact of one’s individual action. As mentioned above, typically, the contribution of an individual to the collective good is negligible (Messick & Brewer, 1983). The collective, however, through concerted effort, can be an influential agent (Bandura, 2000). When a heightened sense of connectedness makes one project own intentions and behavior onto others, the individual who intends to engage in socially responsible action will expect others to take a similar action. Therefore, even though an individual only manages his/her behavior and does not have any control over the actions of others, feeling connected to others is likely to be associated with the belief that common good will be achieved through a concerted effort. As a result, the sense of connectedness to others will increase the belief that one’s individual action may have an
impact on the larger scale. Consistent with this idea, Messick and Brewer (1983) theorized that identifying with others may increase the perceived effectiveness of individual action because “when individuals feel […] that their actions are representative of some larger social entity, the perceived impact of those actions is magnified […]” (p. 28). In sum, we predict that a strong sense of connectedness to others will increase the perceived effectiveness of individual action because people will use their own intentions to make inferences about others. Consequently, feeling connected to others will trigger socially responsible behavior.

**Overview of studies**

We tested our hypotheses by means of survey data and three experiments. In Study 1, we used a survey of consumption behaviors to test whether individuals with a heightened sense of connectedness to others view their individual choices as more effective in contributing to the greater good and whether, as a result, they are more likely to engage in socially responsible behavior. In three subsequent experiments, we examined the causal impact of the sense of connectedness by activating an interdependent mindset through a priming procedure. In Study 2, we tested whether priming the sense of connectedness increases perceived effectiveness of individual consumption choices, and the role of projected expectations in this process. In Studies 3 and 4, we examined the effect of the experimentally induced sense of connectedness on various behavioral measures of socially responsible conduct. In Study 3, the outcome measure was participants’ willingness to exert effort for a social cause. In Study 4, our dependent variable was participants’ willingness to pay for chocolate marketed by an organization that promotes ethical business and fair trade. In this last study, we also further tested the mediating effect of perceived effectiveness of individual choices in explaining the link between feeling connected to others and socially responsible
behavior.

**Study 1**

Study 1 was conducted to test the link between one’s sense of connectedness to others and (1) perceived consumer effectiveness, and (2) socially responsible consumption choices. In particular, we examined whether individual differences in feeling connected to others could predict environmentally conscious purchasing behavior and recycling. We also tested whether the relationship between one’s sense of connectedness to others and socially responsible behavior was mediated by the perceived consumer effectiveness, above and beyond the possible mediating effect of social values.

**Method**

**Participants and procedure.** Seven hundred and fifty-four US-based adults who were members of an online research panel (CT Marketing Group, Inc.) were recruited to complete a survey. Halfway through the survey, we included an instructional manipulation check (Oppenheimer, Meyvis, & Davidenko, 2009) to identify participants who do not read the questions carefully. More specifically, participants were told: “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. The final sample thus included six hundred thirty-eight US-based adults (100% full-time employed; 62% female; 81.5% Caucasian, 5.2% African American, 4.7% Hispanic, 7.1% Asian American; $M_{age} = 44.08, SD_{age} = 11.44$). Approximately 59% of the sample had at least a university degree, while another 22% of the respondents had some college education.

**Measures.**
Unless otherwise indicated, all items used a 7-point Likert-type scale anchored at 1 = *strongly disagree* and 7 = *strongly agree*.

**Sense of connectedness.** We assessed participants’ sense of connectedness through 10 items of the self-concept scale which measure interdependence (Johnson & Lord, 2010; Johnson, Selenta, & Lord, 2006). Items included “Knowing that a close other acknowledges and values the role that I play in their life makes me feel like a worthwhile person” and “I feel great pride when my team or group does well, even if I am not the main reason for its success,” $\alpha = .92$.

**Socially responsible consumption choices.** We measured two types of socially responsible behavior: recycling and environmentally conscious purchasing behavior. Participants were asked to indicate, on a scale from 1 = *never true* to 7 = *always true*, how often they engage in a number of behaviors. Both measures are subscales from the socially responsible purchase and disposal scale (Webb, Mohr, & Harris, 2008). Recycling behavior was measured using six items. Sample items included: “I recycle plastic containers” and “I recycle magazines,” $\alpha = .94$. Environmentally conscious purchasing behavior was measured using seven items. Sample items included: “I make an effort to avoid products or services that cause environmental damage” and “I avoid buying products that are made from endangered animals,” $\alpha = .92$. We conducted confirmatory factor analyses to verify the two-dimensional structure of the measure. The model with two factors, $\chi^2 (61) = 210.44$, RMSEA = .06, CFI = .98, SRMR = .04, yielded a significantly better fit with the data than the model with one factor, $\chi^2 (62) = 2192.03$, RMSEA = .23, CFI = .72, SRMR = .20, indicating that the two measures of behavior should be analyzed separately.

**Perceived consumer effectiveness.** To measure perceived consumer effectiveness, we included three items from the perceived consumer effectiveness scale
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Yes, I can. The items 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 does not 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,” $\alpha = .83$.

**Social values.** Social values were measured using four items from the consumer ethics scale (Vitell & Muncy, 2005). Respondents were asked to indicate agree or disagree whether specific behaviors were morally appropriate. Target behaviors were chosen so as to correspond to the self-report socially responsible behaviors. The items were: “Purchasing something made of recycled materials even though it is more expensive,” “Recycling materials such as cans, bottles, newspapers, etc.,” “Buying products labeled as “environmentally friendly” even if they do not work as well as competing products,” and “Buying only from companies that have a strong record of protecting the environment,” $\alpha = .87$.

**Social desirability.** Previous research showed that individuals scoring higher on interdependence are more concerned with self-presentation and are motivated to be liked by others (van Baaren, Maddux, Chartrand, de Bouter, & van Knippenberg, 2003). To control for the possible response bias due to the self-presentation motives, we included eleven items from the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960). Sample items included “It is sometimes hard for me to go on with my work if I am not encouraged” and “I am always willing to admit it when I make a mistake.” Participants were asked to indicate whether each of the items was true or false, $\alpha = .70$.

**Results**

Descriptive statistics for our focal variables are presented in Table 1.
To analyze the relationship between our focal variables, we conducted regression analyses (see Table 2). Step 1 was a baseline model with recycling behavior and environmentally conscious purchasing behavior as dependent variables and individuals’ sense of connectedness as the independent variable. At Step 2, we first regressed perceived consumer effectiveness (i.e., the proposed mediator) on the sense of connectedness. We then regressed social values (i.e., another potential mediator) on the sense of connectedness. Finally, at Step 3, we regressed each measure of socially responsible behavior on individuals’ sense of connectedness, perceived consumer effectiveness, and social values. Social desirability, age, and gender were included as controls in all models.

The results revealed that individuals’ sense of connectedness significantly predicted recycling behavior (Step 1: $\beta = .18, p < .001$) and environmentally conscious purchasing behavior (Step 1: $\beta = .28, p < .001$), as well as the perceived consumer effectiveness (Step 2: $\beta = .41, p < .001$) and social values (Step 2: $\beta = .22, p < .001$). When the mediators were added to the models predicting socially responsible behavior (i.e., Step 3 compared to Step 1), the sense of connectedness became non-significant in predicting recycling behavior ($\beta = .05, ns$), and its effect on environmentally conscious purchasing behavior diminished ($\beta = .10, p < .01$), while perceived consumer effectiveness was significant in predicting both measures of behavior ($\beta = .26$ and $.43$, both $p < .01$). The effect of social values on behavior was not significant in these final models ($\beta = .07$ and $.01$, both $ns$). Interestingly, social values significantly predicted
behavior when added to the models of behavior as the only mediator ($\beta = .17$, $p < .00$ for both measures of behavior, models not reported in Table 2). These results suggest that the effect of perceived consumer effectiveness on behavior is stronger than the effect of social values and that perceived effectiveness of individual action mediates the relationship between one’s sense of connectedness and socially responsible behavior (Barron & Kenny, 1986).

To further test the mediation effect, we used a bootstrapping technique (Preacher & Hayes, 2008; Shrout & Bolger, 2002). In particular, we estimated the size of the indirect effect of the sense of connectedness on socially responsible behavior via the perceived consumer effectiveness in a model that also included a mediating path through social values. Social desirability bias, age, and gender were included as control variables. The results indicated that the 95% bias-corrected confidence interval for the indirect effect through perceived consumer effectiveness excluded zero both for recycling behavior (.12, .32) and environmentally conscious purchasing behavior (.20, .38), suggesting a significant indirect effect (MacKinnon, Fairchild, & Fritz, 2007). Consistent with the regression results, the 95% bias-corrected confidence interval for the indirect effect through social values included zero for both recycling behavior (.00, .08) and environmentally conscious purchasing behavior (-.03, .04), suggesting the indirect effect was not significant.

Discussion

These findings provide support for our suggestion that the sense of connectedness to others is linked to socially responsible behavior, via perceived consumer effectiveness. Participants with a greater sense of connectedness reported that they were more likely to make socially responsible consumption choices. In addition, they saw their consumption choices as more impactful in producing meaningful societal
changes, and this judgment (partly) explained the relationship between one’s sense of connectedness and socially responsible behavior. While participants with a greater sense of connectedness also scored higher on social values, the effect of social values on socially responsible behavior was negligible when both social values and perceived consumer effectiveness were tested for their impact on behavior. These results support previous findings that social values may not be sufficient to produce behavioral changes (e.g., Crosby et al., 1981; Kollmus & Agyeman, 2002). Most importantly, our findings imply that one’s sense of connectedness is associated with greater perceived consumer effectiveness, which, in turn, makes socially responsible choices more likely.

**Study 2**

To further test for a causal link between the sense of connectedness and perceived consumer effectiveness, we ran an experiment in which the sense of connectedness was manipulated by activating an interdependent mindset through a priming procedure. Specifically, we tested whether an enhanced sense of connectedness would strengthen one’s belief in how effective individual consumptions choices are to trigger larger-scale societal changes. In addition, we examined whether the effect of the sense of connectedness on perceived consumer effectiveness operated through projected expectations regarding others.

**Method**

**Participants and procedure.** Thirty-nine undergraduate students (59.7% female) participated in a series of studies in exchange for €9 (about $12). Participants were randomly assigned to either an interdependent prime condition or control condition and completed all tasks in semi-closed cubicles. We first asked participants to complete a writing task that, for half of the participants, was aimed to prime interdependence. In a later, seemingly unrelated task, we measured participants’
perceived consumer effectiveness.

**Manipulation and measures.**

*Interdependence manipulation.* We used a manipulation previously shown to activate an interdependent mindset in the context of consumer behavior (Mandel, 2003; Oyserman & Lee, 2008). Participants in the *interdependent* condition were instructed to spend about five minutes writing about an instance in which they purchased a present for a friend or a family member. They were asked to describe how the other person benefited from receiving the gift and how they felt about the purchase. Those in the *control* condition were instructed to describe an instance in which they bought something for themselves and to write how they benefited from the purchase and how they felt about it.

*Manipulation check.* To test the effectiveness of our priming manipulation, we administered next the inclusion-of-other-in-self (IOS) scale (Aron et al., 1992), which was designed to measure an individual’s sense of being connected to others. In the IOS scale, respondents select from a set of Venn-like diagrams the picture that best describes their relationship with others. Each diagram corresponds to a different degree of overlap of two circles, one of which represents the self and the other represents the others (see Fig. 1). We included two items. The first item asked participants, using the IOS scale, to indicate how close they felt with respect to the community at large, i.e., people from their city, their fellow citizens, and the population at large. The second item asked how close participants felt towards other students at their university. This way we captured participants’ sense of connectedness both to the broader society and to their immediate surroundings (Aron et al., 1992; Ashmore, Deaux, & McLaughlin-Volpe, 2004). We averaged these two items into a single measure of the sense of connectedness. The two items were significantly correlated, \( r = .33, p < .05. \)
Perceived consumer effectiveness. To measure our dependent variable, perceived consumer effectiveness, we included the same three items from the perceived consumer effectiveness scale (Roberts, 1996) as in Study 1, $\alpha = .80$.

Expectations regarding others. To measure participants’ expectations regarding others’ behavior, we asked them to estimate the proportion of people in general who would be 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

Participants in the interdependent condition indicated that they felt more connected to others ($M = 4.58, SD = 0.99$) than those in the control condition ($M = 3.80, SD = 1.31$), $F(1, 37) = 4.35, p < .05$. Thus, our manipulation effectively increased participants’ sense of connectedness to others. Furthermore, as predicted, participants in the interdependent condition showed higher levels of perceived consumer effectiveness ($M = 4.51, SD = 0.46$) than those in the control condition ($M = 3.75, SD = 1.00$), $F(1, 37) = 9.05, p < .01$.

In addition, participants in the interdependent condition estimated the proportion of people to be willing to exert an extra effort for the environment being larger ($M = 46.53, SD = 24.41$) than those in the control condition ($M = 23.75, SD = 14.29$), $F(1, 37) = 12.80, p < .01$. Further regression analyses revealed that when entered as the only predictor, our experimental manipulation ($1 =$ interdependent, $0 =$ control) significantly predicted perceived consumer effectiveness ($\beta = .44, p < .01$). When we added
expectations regarding others’ behavior as the second predictor, the effect of experimental manipulation was no longer significant ($\beta = .23, ns$), while the coefficient of the expectations regarding others was positive and significant ($\beta = .42, p < .05$). Additional bootstrapping analyses revealed that the 95% bias-corrected confidence interval for the indirect effect excluded zero (.08, .97), suggesting that expectations regarding others mediate the relationship between the sense of connectedness and perceived consumer effectiveness.

**Discussion**

These findings provide further evidence that one’s sense of connectedness to others – in this study manipulated through an interdependent mindset – increases perceived consumer effectiveness. When participants felt more connected to their proximate and larger communities, they reported that their consumption choices would be more impactful in producing meaningful societal changes. In addition, they expected a larger proportion of other people to be willing to exert an extra effort to contribute to the solution of large-scale societal problems, and these expectations explained the relationship between feeling connected to others and perceived consumer effectiveness. Thus, feeling connected to others increased projected expectations, which, in turn, increased perceived consumer effectiveness.

**Study 3**

In a next experiment, we further tested the causal link between the sense of connectedness and socially responsible behavior. As in Study 2, we manipulated the sense of connectedness to others through an interdependence prime. We then assessed the effect of our manipulation on participants’ willingness to exert effort for a social cause.

**Method**
Participants and procedure. Two hundred US-based adults, recruited as in Study 1, were invited to participate in an online study. Out of these, one hundred thirty-eight participants completed the priming manipulation task. The data of six participants (4%) who did not pass the instructional manipulation check (Oppenheimer et al., 2009) were excluded. The final sample thus included one hundred thirty-two US-based adults (100% full-time employed; 71.2% female; 89.4% Caucasian, 3.8% African American, 2.3% Hispanic, 2.3% Asian American; $M_{age} = 45.92$, $SD_{age} = 11.40$). Approximately 54% of the sample had at least a university degree, while another 23% of the respondents had some college education.

Participants were randomly assigned to either an interdependent prime condition or control condition. We first asked participants to complete a writing task, which was identical to the one employed in Study 2 and was aimed to prime interdependence for half of our participants. After that, in a seemingly unrelated task, we measured participants’ willingness to exert effort in providing assistance to an NGO. In particular, participants were told that the researchers conducting the study supported the actions of the NGO EarthAction. More specifically, the NGO needed help in finding corporate sponsors. Participants were further told that the response to letters inviting for a donation was larger when there was a simple and powerful slogan as to why should a donation be given, such as "Help us help them!" Participants were asked for their voluntary help in creating new slogans, so as to avoid repetitions in the letters:

“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 their phrases in a specially designated textbox or skip that part without entering any text. We measured participants’ willingness to exert effort for
a social cause as the number of slogans that each participant contributed.

**Results and discussion**

Sample slogans that participants provided include “A little help can make a big difference,” “Together we can make a difference,” “We can do it!”; “Give and make a difference!”, “One donation has a major effect,” “Earth is where the heart is,” and “One person alone can’t save the earth, but people working together can.” As expected, participants in the interdependent condition provided more phrases ($M = 1.56, SD = 1.61$) than those in the control condition ($M = 0.79, SD = 1.03$), $F(1, 130) = 11.13, p = .001$. These findings indicate that a heightened sense of connectedness to others leads individuals to engage in socially responsible behavior to a greater extent.

**Study 4**

In Study 4, we sought to further demonstrate the robustness of the relationship between the sense of connectedness and socially responsible behavior by using a different behavioral outcome. In particular, we first manipulated participants’ sense of connectedness and then measured their financial contributions to an organization that promotes ethical business and fair trade. After that, we administered a measure of perceived effectiveness of individual action, akin to perceived consumer effectiveness, to test its role in explaining the effect of the sense of connectedness on socially responsible behavior. Finally, to guard against the possibility that our experimental manipulation inadvertently affected another potential mediator (Bullock, Green, & Ha, 2010), we measured participants’ social values.

**Method**

**Participants and procedure.**

Forty-eight undergraduate students (64.6% female; $M_{age} = 21.38, SD_{age} = 3.88$) participated in this study for a €9 show-up fee (about $12). Participants were randomly
assigned to either an interdependent prime condition or control condition and completed all tasks in semi-closed cubicles. Participants’ sense of connectedness to others was manipulated via the same priming task as in Studies 2 and 3. After this task, participants were invited to engage in a seemingly unrelated task: they were offered an opportunity to make a financial contribution to an NGO. The amount that participants decided to contribute was subtracted from their participation fee. All proceeds were donated to the fair trade organization in question. Participants then completed a measure of the perceived effectiveness of their individual contribution and a measure of social values.

**Measures.**

*Socially responsible behavior.* We told our participants that they would be given a bar of chocolate marketed by an NGO which promotes ethical business and fair trade. We then offered participants the opportunity to pay for the chocolate by contributing part of their participation fee to that NGO. Participants were free to indicate any amount from 0 to €9. This contribution constituted our measure of socially responsible behavior.

*Perceived effectiveness of individual action.* We adapted three items from the perceived consumer effectiveness scale (Roberts, 1996) to reflect the context of the current study. The items were: “The contribution of a single individual to the NGO is important and can help people in need,” “Contributions to charity organizations make the world a better place,” and “My contribution to charity can make a difference and have an impact.” Each item was rated by participants on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*, \( \alpha = .81 \).

*Social values.* Social values were assessed using four items designed to measure the importance of long-term goals related to community contributions from the aspiration index scale (Kasser & Ryan, 1993). Each item was rated by participants on a
7-point scale ranging from 1 = not at all important to 7 = extremely important. The items were: “To work for the betterment of society,” “To assist people who need it, asking nothing in return,” “To work to make the world a better place,” and “To help others improve their lives,” $\alpha = .87$.

**Results**

Participants in the *interdependent* condition ($M = 5.18$, $SD = 1.32$) felt that their individual contribution was more impactful than those in the *control* condition ($M = 4.13$, $SD = 1.24$), $F(1, 46) = 8.12$, $p < .01$. At the same time, our experimental manipulation did not affect the extent to which participants found social values important ($M = 4.79$, $SD = 0.61$ and $M = 4.88$, $SD = 0.87$), $F(1, 46) < 1$, ns. As for participants’ contribution to the NGO, those in the *interdependent* condition paid more for the fair trade chocolate ($M = 1.27$, $SD = 1.50$) than those in the *control* condition ($M = 0.54$, $SD = 0.64$), $F(1, 46) = 4.82$, $p = .03$, as we expected.

We tested the role of perceived effectiveness of individual contribution in explaining the effect of our experimental manipulation on contributions to the NGO. Regression analyses revealed that when entered as the only predictor, our experimental manipulation ($1 = interdependent, 0 = control$) significantly predicted individual contributions ($\beta = .31, p < .05$). When we added perceived effectiveness of individual contribution and social values as predictors, the effect of experimental manipulation was no longer significant ($\beta = .16, ns$), the coefficient of perceived effectiveness of individual contribution was positive and significant ($\beta = .38, p = .01$), while the coefficient of social values was not ($\beta = .05, ns$). Follow-up bootstrapping analyses of indirect effects via both perceived individual effectiveness and social values revealed that the 95% bias-corrected confidence interval for the indirect effect through perceived individual effectiveness excluded zero (.12, .78), while the one corresponding to social
values did not (-.16, .04). These results suggest that the effect of our experimental manipulation on financial contributions was entirely mediated by perceived individual effectiveness.

**Discussion**

These results provide further support for the hypotheses that the sense of connectedness to others increases perceived effectiveness of individual action, which, in turn, leads to more socially responsible behavior. When participants were induced to feel more connected to others, they contributed more to the NGO. In addition, they felt that their individual contribution would have a greater impact, which explained the relationship between feeling connected to others and their contributions.

**General discussion**

In four studies, we showed that the sense of connectedness affects perceptions of the effectiveness of individual socially responsible action and consequently the likelihood of engaging in socially responsible behavior. In particular, our results demonstrate that the more one feels connected to others, the more one believes that his or her actions have a substantial impact on the larger scale. The effect occurs because the heightened sense of connectedness to others causes people to project their behavioral intentions onto others, thereby magnifying the perceived impact of one’s own actions. Furthermore, our results showed that whereas social values may play a role in motivating socially responsible behavior of interdependent individuals, perceived individual effectiveness is a better predictor when both are considered simultaneously.

The robustness of our results across four studies in which we employed different methods reinforces our confidence in these results. First, we used both correlational and experimental methods to test the relationship between the sense of connectedness (operationalized both as a state (Studies 2, 3, and 4) and trait (Study 1) variable),
perceived consumer effectiveness, and socially responsible behavior. Second, we collected data both in a survey and in laboratory studies, from student and working adult samples. Moreover, we used both self-report and observable behaviors as our dependent variables.

**Theoretical and practical implications**

Our work has several implications for theory. First, we suggest that a comprehensive account of the effect of the sense of connectedness to others on socially responsible behavior must include not only the individual’s commitment to collective goals, but also the perceived effectiveness of the individual’s contribution. Previous research has devoted much attention to the role of social values in shaping socially responsible behavior (Gärling et al., 2003; McClintock & Allison, 1989; Nauta et al., 2002; Van Lange, Agnew, Harinck, & Steemers, 1997; Van Lange et al., 1998). Other studies have linked the sense of connectedness to differences in social values (Arnocky et al., 2007; McCarty & Shrum, 2001). This literature suggests a single path for the relationship between the sense of connectedness and socially responsible behavior, via a commitment to collective goals. We suggest that at least one other mechanism links both constructs: perceived consumer effectiveness. This account is more complete, and it aligns research on the role of connectedness in shaping socially responsible behavior with classic motivation theories emphasizing the importance of perceived effectiveness of one’s actions in reaching goals (e.g., Bandura, 1986; Vroom, 1964).

Second, the behaviors that we examined currently draw increasing attention from scholars in a variety of fields. For example, the promotion of collective wellbeing, including sustainable consumer behavior, is one of the pillars of a transformative consumer research program, which is currently gaining momentum in the marketing literature (Mick, Pettigrew, Pechmann, & Ozanne, 2012). At the same time, recycling
and switching to environmentally responsible products or processes are among the most common organizational initiatives aimed at environmental sustainability at work (Ones & Dilchert, 2009, 2012). Our results contain promising ideas for motivating socially responsible behavior. In particular, previous research suggested that the most important obstacle for socially responsible behavior is the feeling of personal ineffectiveness when individuals consider acting responsibly for the purpose of enabling better large-scale societal outcomes (e.g., Jackson, 2005; Lorenzoni, Nicholson-Cole, & Whitmarsh, 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 one’s connectedness to others. By pointing out the importance of the sense of connectedness in affecting the perceived effectiveness of individual action, we offer an avenue for promoting socially responsible behavior. Thus, interventions aimed at increasing the salience of the togetherness and connectedness of individuals can be a powerful tool to motivate individual socially responsible behavior.

Our findings are in line with McKenzie-Mohr’s (2000) work on community-based social marketing, a framework that uses 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 has clearly indicated the limits of such an—often expensive—approach (Owens & Driffill, 2008; Sturgis & Allum, 2004). Effective programs should include more subtle elements that increase motivation to engage in socially responsible behavior and translate that concern into a change in behavioral patterns. Understanding what kind of information to provide in such campaigns is crucial for 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 connectedness to others. Indeed, in conditions where similarities between current and previous guests were emphasized, the researchers observed an increase in towel reuse. 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 enhance the client’s sense of connectedness with others.

**Future research**

While our results showed that the effect of the sense of connectedness on socially responsible behavior was mediated only by perceived consumer effectiveness and not by one’s social values, individuals who felt more connected to others also reported stronger commitment to further societal goals (Study 1). Future studies should further examine the link between the sense of connectedness, social values, socially responsible behavior, and perceived individual effectiveness. For instance, it is possible that social values are circularly related to individual behavior. That is, social values affect (although imperfectly) behavior, and then one’s behavior makes the individual reconsider his or her social values. That is, doing something valuable for the collective good may signal to the individual that s/he is indeed committed to collective goals thereby promoting subsequent prosocial behavior (e.g., Cornelissen, Pandelaere, Warlop, & Dewitte, 2008; Oyserman, 2009). Because individuals will only act in a socially responsible manner if they feel their individual actions can have an impact, perceived effectiveness may play a crucial role in reinforcing social values and feeding
this circular relationship. In other words, because feeling that my action can make a difference is a necessary condition for me to act, the greater my perceived effectiveness, the more likely I reinforce my prosocial values through behavior. Future research should examine this possibility.

Our results also suggest that altering the individual’s fundamental values is not easy and may not be achieved by a simple priming procedure (Study 4). On the other hand, we found that priming connectedness can temporarily alter perceived consumer effectiveness. Further research should identify settings which foster or, on the contrary, hinder either mechanism. For example, in deciding how to act towards a specific other person (individual effectiveness is objectively high), the effect of the sense of connectedness may be primarily operating through its impact on one’s social values. However, in deciding how to act in order to achieve a specific large-scale societal outcome (individual effectiveness is objectively low), reliance on social values alone may not be sufficient to motivate behavior.

It is also instructive to examine the implications of our findings for situations that may produce negative large-scale societal outcomes. For example, greater prominence of the sense of connectedness may be associated with anti-social values in relation to out-group members (e.g., Triandis et al., 2001). We speculate that the effect of feeling connected to others is likely to hold given both social and anti-social values. Given anti-social values, feeling more connected to others may be more likely to produce behavior aimed at harming a society that includes out-group members. This possibility clearly merits further research attention.

Finally, it has recently been suggested that the larger or the more comprehensive the category of “others,” the more the sense of connectedness is associated with concerns about global issues. In particular, McFarland and colleagues have proposed
that individuals differ in the extent to which they *identify with all humanity* and reported preliminary results on the link between this trait and individual attitudes toward global and humanitarian issues (McFarland, Brown, & Webb, 2013; McFarland, Webb, & Brown, 2012). Further research should address the question of how the size of the community or a collective of people one feels connected to affects one’s feeling of effectiveness and socially responsible behavior. While it seems plausible to predict that the larger the size of the group, the more likely the individual is to engage in actions aimed at solving large-scale societal problems, future studies should test this prediction explicitly.

**Conclusions**

In this work we sought to provide a more comprehensive account of the effect of the sense of connectedness to others on socially responsible behavior by highlighting how the sense of connectedness affects perceived consumer effectiveness. We showed that when people feel connected to others, they see their individual actions as more impactful. This matters a great deal in settings where the objective effectiveness of individual action is low, whereas the effectiveness of collective action is high. Hence, our results are particularly important for understanding socially responsible behavior. This research suggests that emphasizing connectedness between people and reminding ourselves that “We’re all in this together” may help us feel more powerful in bringing change on a large scale and act to solve societal problems which require the actions of many.
References


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Management, Chicago, Illinois.


Table 1

Descriptive statistics, Study 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>1 Sense of connectedness</td>
<td>5.81</td>
<td>0.88</td>
<td>(.92)</td>
<td></td>
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<td></td>
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<tr>
<td>2 Perceived consumer effectiveness</td>
<td>5.48</td>
<td>1.31</td>
<td>.44***</td>
<td>(.83)</td>
<td></td>
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<td></td>
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<tr>
<td>3 Recycling behavior</td>
<td>5.33</td>
<td>1.73</td>
<td>.19***</td>
<td>.32***</td>
<td>(.94)</td>
<td></td>
<td></td>
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<tr>
<td>4 Environmentally conscious purchasing behavior</td>
<td>4.44</td>
<td>1.40</td>
<td>.31***</td>
<td>.50***</td>
<td>.44***</td>
<td>(.92)</td>
<td></td>
</tr>
<tr>
<td>5 Social values</td>
<td>4.88</td>
<td>1.56</td>
<td>.21***</td>
<td>.45***</td>
<td>.19***</td>
<td>.22***</td>
<td>(.87)</td>
</tr>
<tr>
<td>6 Social desirability</td>
<td>1.55</td>
<td>0.24</td>
<td>.12**</td>
<td>.11**</td>
<td>.08*</td>
<td>.20***</td>
<td>-.06</td>
</tr>
<tr>
<td>7 Age</td>
<td>44.08</td>
<td>11.44</td>
<td>.11**</td>
<td>.09*</td>
<td>.04</td>
<td>.07</td>
<td>-.07</td>
</tr>
<tr>
<td>8 Gender (female=1, male=0)</td>
<td>0.62</td>
<td>0.49</td>
<td>.13***</td>
<td>.20***</td>
<td>.07</td>
<td>.11**</td>
<td>.09*</td>
</tr>
</tbody>
</table>

Note. *N = 638. ***p < .001, **p < .01, *p < .05 (two-tailed). Coefficient alphas appear across the diagonal in parentheses.
Table 2

Regression analyses, Study 1

<table>
<thead>
<tr>
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<th>Step 1</th>
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<th>Step 3</th>
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<td>DV = Recycling behavior</td>
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<td>DV = Environmentally conscious purchasing behavior</td>
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<td>DV = Social values</td>
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<td>Social desirability</td>
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<td>.17***</td>
<td>(4.47)</td>
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<td>(1.68)</td>
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<td>Age</td>
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<td>.01</td>
<td>(.23)</td>
<td>.03</td>
<td>(.81)</td>
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<td>Gender (female=1, male=0)</td>
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<td>.07</td>
<td>(1.84)</td>
<td>.14***</td>
<td>(4.09)</td>
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<td>Independent variable</td>
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<td>Sense of connectedness</td>
<td>.18***</td>
<td>(4.44)</td>
<td>.28***</td>
<td>(7.43)</td>
<td>.41***</td>
<td>(11.57)</td>
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<td>Mediators</td>
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</tr>
<tr>
<td>Perceived consumer effectiveness</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Social values</td>
<td></td>
<td></td>
<td>.26***</td>
<td>(5.47)</td>
<td>.43***</td>
<td>(10.21)</td>
</tr>
<tr>
<td></td>
<td>adj. $R^2$</td>
<td>.04</td>
<td>.12</td>
<td>.12</td>
<td>.06</td>
<td>.10</td>
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<tr>
<td></td>
<td>$F$</td>
<td>F(4, 633) = 6.84</td>
<td>F(4, 633) = 23.53</td>
<td>F(4, 633) = 45.10</td>
<td>F(4, 633) = 10.72</td>
<td>F(6, 631) = 12.96</td>
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</table>

Note. $N = 638$. Standardized beta coefficients; $t$ statistics in parentheses. *** $p < .001$; ** $p < .01$; * $p < .05$. 
Figure 1

Self-Other Overlap Measure, Study 2