

Convincing Yourself to Care About Others: An Intervention for Enhancing Benevolence Values

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Abstract

To study value change, this research presents an intervention with multiple exercises designed to instigate change through both effortful and automatic routes. Aiming to increase the importance attributed to benevolence values, which reflect the motivation to help and care for others, the intervention combines three mechanisms for value change (self-persuasion, consistency-maintenance, and priming). In three experiments, 142 undergraduates (67% male, ages 19–26) participated in an intervention emphasizing the importance of either helping others (benevolence condition) or recognizing flexibility in personality (control condition). We measured the importance of benevolence values before and after the task. In Experiment 1, the intervention increased U.S. participants' benevolence values. In Experiment 2, we replicated these effects in a different culture (Israel) and also showed that by enhancing benevolence values, the intervention increased participants' willingness to volunteer to help others. Experiment 3 showed that the increases in the importance of benevolence values lasted at least 4 weeks. Our results provide evidence that value change does not require fictitious feedback or information about social norms, but can occur through a 30-min intervention that evokes both effortful and automatic processes.

Changing people's values is a central goal of societies, institutions, organizations, and individuals. The dynamic contemporary world challenges the goals and aspirations of groups and individuals, creating the impetus for people to embrace change and demonstrate flexibility. For example, educational programs aim to shape their students' values to emphasize achievement, cooperation, and honesty. Military organizations aim to cultivate values of honoring authority, tradition, and integrity. Youth, nonprofit, and community organizations such as the Boy Scouts and the Red Cross strive to inculcate values of helpfulness and community service. Businesses such as Disney, Google, and Southwest Airlines seek to instill their values in their employees.

But is it possible to change people's values? Due to their central role in the self and their trans-situational nature, values are considered relatively stable (Rokeach, 1973; Schwartz, 1992; for a review, see Hitlin & Piliavin, 2004). Despite long-standing recognition that values can change (Rokeach, 1973, 1975), only a few studies have investigated the psychological processes through which values change, yielding inconsistent results (for reviews, see Bardi & Goodwin, 2011; Bardi, Lee, Hofmann-Towfigh, & Soutar, 2009). The few projects that introduced successful value-change interventions have often relied on false feedback about social norms (Rokeach, 1973, 1975; Maio & Thomas, 2007). Thus, to date, scholars lack strong evidence of whether values can be changed without

using fictitious feedback or providing information about social norms—information that may produce self-dissatisfaction, social comparisons, or shame.

Building on recent theories of value change (Bardi & Goodwin, 2011) and self-persuasion (Aronson, 1999; Maio & Thomas, 2007), we introduce a novel intervention designed to change values through multiple paths, including both effortful and automatic processes, without providing information about social norms. We propose that because values are inherently desirable, when people reflect on the importance of a given value and then advocate for the importance of this value, they may convince themselves to care more about that value. The current research focuses on benevolence values, which involve concern for others and are among the most important values to most people (Schwartz & Bardi, 2001). In three experiments, we randomly assigned participants in the United States and

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Israel to reflect on and advocate for benevolence values or several other topics, and examined changes in the importance attributed to benevolence values immediately and 4 weeks later, as well as intentions to engage in pro-social behavior.

Values

Values are abstract goals that serve as guiding principles in people's lives (Kluckhohn, 1956; Rokeach, 1973; Schwartz, 1992). Because they represent people's conceptualizations of what is good and desirable, values are among the few concepts studied by scholars across the social sciences, including psychology (Rohan, 2000), sociology and political science (Hitlin & Piliavin, 2004; Inglehart & Baker, 2000), and organizational studies (Meglino & Ravlin, 1998). Considerable research has provided evidence for the impact of values on a wide variety of cognitive processes, attitudes, and behavior (see reviews in Hitlin & Piliavin, 2004; Maio, 2010; Roccas & Sagiv, 2010; Sagiv, Schwartz, & Arieli, 2010).

Values are viewed as a central aspect of the self-concept (Brewer & Roccas, 2001), distinct from other stable personal attributes, such as traits, needs, motives, and attitudes, in several important ways. First, whereas goals and attitudes usually refer to specific contexts and circumstances, values are trans-situational principles (Rokeach, 1973; Schwartz, 1992). An important value serves as a guiding principle across situations and over time. Second, values are cognitively represented in ways that enable people to think and communicate about them to inform decisions and actions (Schwartz, 1992). This distinguishes values from needs and motives, which are often more unconscious (McClelland, Koestner, & Weinberger, 1989; Schultheiss, 2008).

Third, unlike traits, needs, and motives, which may be either positive or negative, values are inherently positive in the eye of the beholder. Values represent desirable goals, reflecting what people consider important and worthy (Rokeach, 1973). Moreover, although people can explain their behavior by referring to their traits ("I helped her because I'm agreeable") or interests ("I like helping people"), as well as values ("I think it's important to help"), they refer only to their values when justifying choices or actions as legitimate or worthy (Roccas, Sagiv, Schwartz, & Knafo, 2002; Sagiv, 2002). Finally, values differ from other personal attributes because they are ordered by subjective importance, thus forming a hierarchy of value priorities. The higher a value in the hierarchy, the more it is likely to affect the way people perceive and interpret the world, as well as their preferences, choices, and actions (Sagiv, Sverdlik, & Schwarz, 2011; Schwartz, 1992).

Value Change

Reviewing past literature, Bardi and Goodwin (2011) presented a theoretical model of value change. Drawing on Petty and Cacioppo (1986), and consistent with Maio and Thomas

(2007), they proposed a dual-route model, suggesting that values can change through effortful (i.e., central) and/or automatic (i.e., peripheral) processes.

Value change may occur through deliberate epistemic processes. Values are consciously chosen via motivationally driven processes that are cognitively controlled, at least to some extent (Roccas et al., 2002). Through careful consideration of what is important to them, people can deliberately change their values (Bardi & Goodwin, 2011). The elaboration likelihood model of persuasion (Petty & Cacioppo, 1986) proposes that persuasion through this central route is likely when individuals possess both the motivation and the ability to process the information they encounter. Building on this notion, Maio and Thomas (2007) have argued that when individuals possess sufficient motivation and ability, they engage in self-persuasion through active steps such as changing the dimensions along which their judgments are made and reinterpreting their judgments. Values can also change through a more automatic route. Bardi and Goodwin (2011) propose that contextual features, associated in memory with specific values, may prime a certain value schema and yield behavior consistent with this schema. They reason that the automaticity of this process may lead to value change because it minimizes resistance to value change.

Bardi and Goodwin (2011) discuss five facilitators of value change: priming, consistency-maintenance, direct persuasion, adaptation, and identification. Each facilitator taps into one or both routes to value change. Of the five facilitators, adaptation (value change as part of adjusting to a new group or culture) and identification (value change due to identification with a group) depend on specific groups, such as societies, work organizations, or education systems. These facilitators are therefore less relevant to the current research, which aims to investigate value change independent of a specific context. We integrate the other three facilitators—priming, consistency-maintenance, and persuasion—to introduce a novel process for value change.

Priming is likely to impact values through the automatic route (Bardi & Goodwin, 2011). Values are often defined as cognitive schemas (Feather, 1975; Hitlin & Piliavin, 2004) and can hence be affected by situational cues. For example, cross-cultural research among bicultural individuals indicated that priming situational cues, such as pictures of cultural icons, affects the way individuals rate their values (e.g., Bond & Yang, 1982; Gardner, Gabriel, & Lee, 1999; Ralston, Cunniff, & Gustafson, 1995; Yang & Bond, 1980). However, priming values yields short-term change (Bardi & Goodwin, 2011). Moreover, some researchers suggest that priming values affects the accessibility of these values rather than their importance. It is because all values are desirable that merely priming a specific value "reminds" people of the importance they attribute to that value (Roccas, 2003; Sagiv et al., 2011; Verplanken & Holland, 2002).

The other two facilitators are likely to impact values through the effortful route (Bardi & Goodwin, 2011). As dis-

cussed earlier, people may change their values to maintain consistency or preserve coherence in their self-concepts (Rokeach, 1973, 1975). In his seminal work on value change, Rokeach (1973, 1975) developed a self-confrontation procedure designed to promote value change. In this procedure, participants first self-reported their value priorities. They then received feedback that allegedly pointed to inconsistencies between their values and their self-conception of competence or morality (e.g., they were told that a value to which they attributed high importance was more important to their fellow students). A post-feedback measurement of values revealed that participants reduced these discrepancies by changing their value priorities. Ample research has employed this self-confrontation procedure to study value change (see reviews in Maio, Pakizah, Cheung, & Rees, 2009; Rokeach, 1975). This procedure typically requires fictitious feedback (Rokeach & Ball-Rokeach, 1989) and may therefore produce unpleasant psychological processes of self-comparison and self-dissatisfaction.

Finally, persuasion may be the most pervasive facilitator of value change. Intentional socialization attempts to instill desired values are common practices in societies around the world (Knafo & Schwartz, 2001; Rokeach & Ball-Rokeach, 1989) and in organizations (Chatard & Selimbegovic, 2007; Chatman, 1989, 1991; Saks & Ashforth, 1997). In recent years, however, research on attitude change has pointed to some limitations of the classic interpersonal persuasion and social influence techniques (Aronson, 1999; Pratkanis & Aronson, 2001). Research indicates that when people know they are being subjected to persuasion attempts, they marshal resistance tactics and defense strategies (e.g., Fitzsimons & Williams, 2000; Morwitz & Fitzsimons, 2004; Sagarin, Cialdini, Rice, & Serna, 2002). In addition, persuasion techniques that rely on social influence are often limited by low credibility of the message and the source. In particular, since values represent an individual's subjective views of what is important to him or her personally, it is difficult to regard others as a credible source for one's own values.

To overcome these limitations, psychologists have developed self-persuasion procedures (Aronson, 1999). These techniques ask people to reflect on, generate ideas about, and advocate ideas and issues. Hence, they bypass many of the stumbling blocks of interpersonal persuasion, since people generally see themselves as credible, authentic, and reliable sources (Pratkanis & Aronson, 2001). For example, Heslin, Latham, and VandeWalle (2005) developed a multistep self-persuasion task to change participants' implicit person theories from entity theories (endorsing the belief that people's attributes are fixed) to incremental theories (endorsing the belief that people's attributes can change and develop). They found that reflecting about personal change, generating ideas about how attributes change, and advocating the importance of personal change led participants to develop stronger incremental theories over the course of 6 weeks.

Although this evidence establishes that self-persuasion can change attitudes, it is not yet clear whether this process can change values, which differ from attitudes in two important ways. First, because attitudes have specific targets, their impact is circumscribed to target-specific behaviors (Ajzen, 1991; Ajzen & Fishbein, 1977). In contrast, values are broad and trans-situational in nature, and yield ramifications for a wide range of behaviors (Verplanken & Holland, 2002)—both specific (Bardi & Schwartz, 2003) and broader, more consequential actions (Sagiv & Schwartz, 2004). Second, whereas attitudes are known to be malleable, values are thought to be more trait-like and stable over time, and thus more difficult to change (Schwartz & Sagiv, 1995).

Thus, it is important to examine whether self-persuasion can change values as well as attitudes. Bardi and Goodwin (2011) suggested that self-persuasion will be effective for value change due to values' centrality in the self-concept. To the best of our knowledge, the current research is the first to empirically test this assertion. Moreover, past research has identified values as an antecedent of self-persuasion processes, showing how values serve as a guide for choosing the dimensions along which to change one's beliefs and attitudes (e.g., Sherman & Cohen, 2006; Steele, 1988). In the current research, we aim to reverse this causal arrow and show that values can also be a product—not only a cause—of self-persuasion processes.

In sum, we integrate the three facilitators of priming, consistency-maintenance, and persuasion (Bardi & Goodwin, 2011). Building on the merits of each facilitator, we aim to employ both automatic and effortful processes to instigate value change. We reason that combining the three facilitators yields a powerful platform for value change.

Benevolence Values

We focus specifically on benevolence values, which reflect the importance of protecting and promoting the well-being of others with whom one is in regular personal contact (Schwartz, 1992). Research indicates that benevolence values are among the most important to most people in most societies (Schwartz & Bardi, 2001). They play a critical role in endorsing social harmony and predicting pro-social behaviors (Bardi & Schwartz, 2003). Studies have indicated that benevolence values are positively associated with behaviors such as helping others, voicing constructive suggestions, donating money, and volunteering (Grant & Mayer, 2009; Maio & Olson, 1995; Rioux & Penner, 2001; Verplanken & Holland, 2002), with demonstrating social sensitivity (Mumford, Connelly, Helton, Van Doorn, & Osburn, 2002), with awareness concerning moral dilemmas (Myrsky, & Helkama, 2002), and with expressing readiness for social contact with out-group members (Sagiv & Schwartz, 1995). They were further found to be related to having a "calling" orientation toward work (Gandal, Roccas, Sagiv, & Wrzesniewski, 2005) and working in pro-

social occupations such as social work, psychology, and physiotherapy (Knafo & Sagiv, 2004; Nosse & Sagiv, 2005).

Whereas most of these studies are correlational, some studies adopted an experimental design to demonstrate the causal effect of benevolence values on behavior. Thus, for example, priming benevolence values (as compared to priming achievement values) increased participants' willingness to volunteer to help the experimenter (Maio et al., 2009). In other research, benevolence values predicted contribution in a dilemma game. The participants who emphasized benevolence values contributed more money when their values were highly accessible than when they were not, thus indicating a causal effect of values on pro-social behavior (Sagiv et al., 2011). Similarly, Grant (2008) conducted a field experiment in which a task significance intervention, which highlighted the benefits of a job to others, increased the objective job performance of individuals who attributed high importance to benevolence values. In this field experiment, employees in a fundraising unit in a university read letters from students who explained how a scholarship funded by their efforts had improved their lives (experimental condition) or documents presenting the organization's policies and procedures (control). The intervention increased the amount of money that the employees raised, but only if benevolence values were important to them. Building on these findings, Bellé (2012) demonstrated that when nurses engaged in a self-persuasion task, reflecting on and advocating for the benefits of their efforts to others, they worked more persistently and productively and made fewer errors. Again, these effects were accentuated among nurses who held strong benevolence values associated with public service. Together, these studies show that benevolence values can have a meaningful effect on behavior.

Overview

To study change in benevolence values, we developed an intervention to instigate change through both effortful and automatic routes. Drawing on Heslin et al. (2005), the intervention relies on self-persuasion, aiming to change values through the effortful route. To increase the likelihood of value change through this route, we developed the intervention such that it provides the participants with both the motivation and ability to change their values. Following the elaboration likelihood model of persuasion (Petty & Cacioppo, 1986), we expect that under these conditions, individuals should give thoughtful consideration to the importance of benevolence values—and therefore be more open to changing them. As part of the intervention, we provided the participants with information indicating the prevalence of benevolence values and their utility to self and others. We expect that through structured reflection about and advocacy of the importance of helping others, individuals can focus more heavily on benevolence as an important value and reinterpret their values as more benevolent.

In addition to self-persuasion, we designed the intervention to tap into the two other facilitators of value change discussed above: priming and consistency-maintenance. The intervention included exercises designed to prime benevolence values and to create the sense of expressing these values frequently, thus leading to the increase in their importance in order to maintain consistency. By adding these elements to the intervention, we aimed to stimulate value change not only through the effortful route (persuasion and consistency-maintenance), but also through the automatic route (priming).

We designed three experiments to test whether our intervention can increase the importance attributed to benevolence values. We tested the effect of this intervention on the importance of values (Experiments 1 and 2) and showed that value change mediated the effect of the intervention on volunteering (Experiment 2). Finally, we investigated longer-term changes in benevolence values over the course of 4 weeks (Experiment 3).

EXPERIMENT 1

Drawing on Heslin et al. (2005), we developed an intervention designed to increase the importance of benevolence values. Aiming for an effortful (central) process, in the first exercise the participants read a summary of recent scientific evidence to provide background information on the topic about which they would be writing. In the benevolence condition, participants read a scientific testimony about how people are significantly more other-focused, cooperative, compassionate, and helpful than most people realize, and how benefiting others benefits the self in the long run. Thus, the participants read information that explicitly stresses the importance of benevolence values. We hence provided them with both the knowledge and the motivation needed for central processing in the persuasion process (Petty & Cacioppo, 1986). In the control condition, participants read a scientific testimony about how people are significantly less "fixed" and "stable" in their personality and ability attributes than most people realize, and how becoming aware of the malleability of attributes benefits the self.

The second and third exercises combined the priming and the consistency-maintenance facilitators. For the second exercise, participants completed a checklist about their experiences over the past month. In the benevolence condition, this exercise served to prime benevolence values by exposing the participants to a list of benevolent actions. The checklist included behaviors reflecting helpfulness and kindness that most people engage in regularly (e.g., offering advice, providing emotional support, giving gifts). Most participants marked many items in the list. They consequently concluded that they attributed high importance to benevolence values (i.e., a process of consistency-maintenance). In the control condition, the checklist included instances of personality change the participants have experienced in themselves or others.

For the third exercise, participants had 5 min to write a story about their own experiences of making a significant positive

difference in the lives of others (benevolence condition) or a story about their personalities or abilities changing significantly (control condition). This exercise again combines priming benevolence values (by recalling a benevolence-related experience) and inducing value change to maintain consistency (between the act of expressing benevolence and the importance attributed to the benevolence values).

Finally, applying an effortful process, the fourth exercise was for participants to take 10 min to write a persuasive essay attempting to convince a panel of reviewers that it is important to be benevolent, generous, cooperative, and helpful (benevolence condition) or that it is important to recognize that personalities and abilities are flexible (control condition).

Together, these exercises build on the three facilitators (persuasion, priming, and consistency-maintenance) to evoke value change. The process begins with reading about the benefits of benevolence values, continues with reflecting on the personal importance and salience of these values, and concludes with convincing others of the merits of these values. By the time participants had finished these activities, we expected that they would experience a strong desire to emphasize benevolence.

Method

Participants and design. Thirty-six undergraduates at a large public university in the midwestern United States participated in the experiment in exchange for 1 hour of course credit. All participants were Caucasian; they were 16 men and 20 women, and ranged in age from 18 to 21 ($M = 18.89$, $SD = .82$). We randomly assigned them to one of two experimental conditions. In the benevolence condition ($n = 18$), they completed a 30-min intervention designed to enhance benevolence values by highlighting the importance of helping others. In the control condition ($n = 18$), they completed a 30-min intervention irrelevant to benevolence values, focusing on the importance of recognizing the flexibility of personalities and abilities.

Measures. To assess value change, we measured participants' values both before and after the intervention. To prevent response biases (see Schwartz, 1999), we used two different value questionnaires that differed as a function of indirect versus direct judgments, concrete versus abstract stimuli, and simple versus complex rating scales (Schwartz et al., 2001).

Before the intervention, participants completed the Portrait Values Questionnaire (PVQ; Schwartz et al., 2001). To measure benevolence values, we used three items anchored on a 7-point scale (1 = *not at all like me*, 7 = *very much like me*): "It's very important to him to help the people around him. He wants to care for their well-being," "It is important to him to be loyal to his friends. He wants to devote himself to people close to him," and "It is important to him to respond to the needs of others. He tries to support those he knows"; $\alpha = .78$).

After the self-persuasion task, participants completed the Schwartz Value Survey (SVS; Schwartz & Sagiv, 1995). The SVS measures the same value types as the PVQ, asking respondents to rate the importance of each item as a guiding principle in their lives on a 9-point scale ($-1 =$ *opposed to my values*, $7 =$ *of supreme importance*). To measure benevolence values, we used four items: "Loyal (faithful to my friends, group)," "Honest (genuine, sincere)," "Helpful (working for the welfare of others)," and "Responsible (dependable, reliable)" ($\alpha = .72$).¹

Procedures. Participants entered the laboratory and learned that the research team was attempting to understand what makes people more or less persuasive. First, they would be asked to complete a pretest questionnaire to provide background information on their personalities. Next, they would be asked to go through several exercises to learn about and reflect on a topic, and then write a persuasive essay about it. Finally, they would complete a posttest questionnaire about their experiences.

After signing consent forms and completing the pretest questionnaire, participants received an information packet with the instructions for the exercises described above, adapted from existing manipulations (Heslin et al., 2005). Participants were randomly assigned to the benevolence or control condition, both of which presented the study as examining persuasion. After completing the four exercises, the participants filled out the posttest questionnaire and received debriefing forms.

Results and Discussion

Means and standard deviations by condition appear in Table 1. We conducted repeated-measures ANOVAs to assess changes in values as a function of condition and conducted paired-samples t -tests to interpret the observed effects. To facilitate comparisons between the scores of the pretest and posttest measures, we standardized the participants' scores (x) by subtracting the mean (μ) and dividing the calculated sum by the standard deviation (σ , $\frac{x - \mu}{\sigma}$).

A repeated-measures ANOVA indicated a significant Time \times Condition interaction on benevolence values, $F(1, 34) = 7.72$, $p < .01$, $\eta^2 = .19$. Paired-samples t -tests in each condition over time indicated that the benevolence condition increased in benevolence values, $t(17) = 2.20$, $p = .04$, $d = .53$, $Power (1 - \beta) = .69$, whereas the control condition showed a trend toward decreasing, $t(17) = -1.80$, $p = .09$, $d = -.42$, $Power (1 - \beta) = .52$. Importantly, we measured the other nine values in Schwartz's (1992) typology and found no significant changes in either condition on any values other than benevolence.

Thus, spending 30 min reflecting on and advocating the importance of helping others led participants to endorse benevolence values as more important. Participants who completed the control task did not increase in these values. However, it is possible that the task did not change benevo-

Table 1 Experiments 1–2: Means by Condition

Condition	Experiment 1		Experiment 2	
	Standardized Pretest	Standardized Posttest	Standardized Pretest	Standardized Posttest
	Benevolence Values	Benevolence Values	Benevolence Values	Benevolence Values
Benevolence	-.03 (0.90)	.42 (0.79)	-.08 (1.23)	.34 (1.05)
Control	.03 (1.12)	-.42 (1.03)	.03 (0.76)	-.24 (0.85)

Note. Standard deviations are in parentheses.

lence values; it merely changed participants' perceptions of themselves as benevolent individuals. To strengthen our conclusion that the value change intervention increases benevolence values, it is important to show that the changes in benevolence values are accompanied by increases in the intention to act on these values.

EXPERIMENT 2

The main goal of Experiment 2 was to test whether the value change intervention affects not only self-reports of values, but also the willingness to express these values through volunteering. We reasoned that value change following the intervention mediates the effect of the experimental condition on volunteering. We further investigated whether the results of Experiment 1 are robust across cultures by studying participants from Israel.

Method

Participants, design, measures, and procedures.

Forty-eight students in a business course at an Israeli university participated in the experiment anonymously. Participants were 29 men and 17 women (two did not report their gender), and they ranged in age from 19 to 26 ($M = 22.89$, $SD = 1.53$). We reversed the order of the two questionnaires so that the SVS was the pretest measure and the PVQ was the posttest measure. First, all participants completed the pretest values measure using the SVS (benevolence $\alpha = .69$), purportedly as part of another study. Two weeks later, we randomly assigned participants to either a benevolence ($n = 24$) or a control condition ($n = 24$). To minimize demand characteristics, we explained that two different research teams were conducting studies: The first was assessing persuasive skills, and the second was examining personal beliefs in different areas. To reduce concerns about social desirability (e.g., Paulhus & Reid, 1991), we collected the data anonymously, using only codes to link the data across time.

Participants carried out the same exercises as in Experiment 1, which were translated into Hebrew. They then completed the posttest values measure, which was the PVQ (benevolence

$\alpha = .68$). To examine behavioral consequences of the value change, the last part of the questionnaire informed participants that various volunteer and social organizations are looking for students who are willing to undertake community work. We did not provide specific details about the organizations and work in question to prevent individual knowledge or preferences from influencing decisions to volunteer. Participants who were interested in volunteering were invited to write their phone number or email address. This method allowed participants to volunteer without violating their anonymity. At the end of the data collection, we forwarded the personal details to a social organization that facilitates volunteering in nonprofit organizations.

Results and Discussion

Means and standard deviations by condition appear in Table 1. Again, we standardized the values measures to facilitate comparisons across the two scales, and a repeated-measures ANOVA indicated a significant Time \times Condition interaction on benevolence values, $F(1, 44) = 7.80$, $p < .01$, $p_{rep} = .96$, $\eta^2 = .15$. Paired-samples t -tests within each condition over time indicated that the benevolence condition increased in benevolence values, $t(21) = 2.27$, $p = .03$, $p_{rep} = .91$, $d = .37$, $Power (1 - \beta) = .51$, whereas the control condition showed a trend toward decreasing, $t(23) = -1.63$, $p = .12$, $p_{rep} = .79$, $d = -.33$, $Power (1 - \beta) = .47$. We measured the full set of values identified by Schwartz (1992), and there were no changes in either condition on any of the values except benevolence.

With respect to the behavioral question, 45% of participants in the benevolence condition provided their personal details, compared to 19% in the control condition, $\chi^2 = 4.08$, $p = .04$, $p_{rep} = .89$, $d = .64$, $Power (1 - \beta) = .99$. A hierarchical regression analysis showed that the change in benevolence values fully mediated the effect of the experimental manipulation on volunteering. When we entered the change in benevolence values in a regression equation predicting volunteering, the effect of experimental condition was no longer a significant predictor ($\beta = -.13$, $t = .88$, $p = .38$, $p_{rep} = .58$), whereas the change in benevolence values was ($\beta = .38$, $t = 2.58$, $p = .01$, $p_{rep} = .96$). A Sobel test using the critical values from MacKinnon, Lockwood, Hoffman, West, and Sheets (2002)

showed that the indirect effect of the experimental manipulation on volunteering through the change in benevolence values was statistically significant, $z' = 1.90, p < .01$. Accordingly, the intervention increased benevolence values and thus enhanced volunteering intentions.

EXPERIMENT 3

Our findings so far indicate a change in the importance of benevolence values following the intervention. Value change may be short-lived—indicating an increase in the accessibility of important values but not necessarily a change in their importance—or long-lasting, indicating a more constant change (Bardi & Goodwin, 2011). Experiment 3 was designed to investigate whether the intervention could encourage longer-term changes in values across 4 weeks. We administered both the SVS and the PVQ, subjected participants to either the experimental or control task, and then administered both the SVS and the PVQ 4 weeks later.

Method

Participants, design, measures, and procedures. Fifty-eight students in a business course at a U.S. public university participated in the experiment anonymously in exchange for 1 hour of course credit. They were 30 men and 28 women. On their first visit to the lab, participants completed the pretest values measures, which consisted of both the SVS (benevolence $\alpha = .77$) and the PVQ (benevolence $\alpha = .71$). We randomly assigned them to either the benevolence condition ($n = 29$) or the control condition ($n = 29$), and they completed the same exercises as in the previous two experiments. Four weeks later, they visited the lab to participate in a different study with a different experimenter present. During this session, they completed the posttest values measures: the SVS (benevolence $\alpha = .81$) and the PVQ (benevolence $\alpha = .80$).

Results and Discussion

Means and standard deviations by condition appear in Table 2. Repeated-measures ANOVAs indicated a significant

Time \times Condition interaction on benevolence values on both the SVS, $F(1, 56) = 3.91, p = .05, p_{\text{rep}} = .87, \eta^2 = .06$, and the PVQ, $F(1, 56) = 5.65, p = .02, p_{\text{rep}} = .93, \eta^2 = .08$. Paired-samples t -tests within each condition over time indicated that the benevolence condition increased benevolence values on the SVS, $t(28) = 2.51, p = .02, p_{\text{rep}} = .93, d = .27, \text{Power}(1 - \beta) = .41$, and the PVQ, $t(28) = 3.64, p < .01, p_{\text{rep}} = .99, d = .43, \text{Power}(1 - \beta) = .73$. The control condition showed no significant changes on either the SVS, $t(28) = -.32, p = .75, p_{\text{rep}} = .32, d = -.04, \text{Power}(1 - \beta) = .07$, or the PVQ, $t(28) = .10, p = .92, p_{\text{rep}} = .16, d = .01, \text{Power}(1 - \beta) = .05$. As in the previous studies, there were no significant changes on any values other than benevolence. These results show that the intervention can increase benevolence values for at least 4 weeks. Finding a consistent pattern of results with two different instruments highlights the robustness of our results.

GENERAL DISCUSSION

Values are considered relatively stable across situations and over time. The current research presents a novel intervention designed to increase the importance of benevolence values. The 30-min intervention combines three different mechanisms that were identified as invoking value change (Bardi & Goodwin, 2011; Maio & Thomas, 2007) through both automatic (priming) and effortful (consistency-maintenance and self-persuasion) paths. Three experiments tested the intervention, indicating that it increases the importance attributed to benevolence values in the short run (Experiments 1–2) as well as after 4 weeks (Experiment 3). The intervention further affected the participants' intention to act on benevolence values, increasing the willingness to volunteer for prosocial action (Experiment 2). Effect sizes were generally moderate according to Cohen's (1992) standards. These effects can be practically important because they are caused by a minimal intervention and are observed for a dependent variable that is difficult to influence (see Prentice & Miller, 1992). Thus, we show how a minimal intervention in terms of time, effort, and external pressure can modify a deep-seated psychological construct such as values.

Our research offers three primary contributions to theory and research on values. First, we offer an integration of past theory on value change, showing that an intervention that combines three facilitators of value change—priming, consistency-maintenance, and self-persuasion—is effective in increasing the importance of benevolence values, even a month later. This research thus provides insight into the psychological processes that can produce value change.

Second, our findings suggest that self-persuasion, as a form of structured reflection, can increase the importance that individuals attribute to benevolence values. We believe this is the first empirical evidence that values, not only attitudes, can be changed in a desired direction through structured reflection. Moreover, our research introduces a new role for values in the self-persuasion process. Research has identified values as an

Table 2 Experiment 3: Means by Condition

Condition	SVS Benevolence Values		PVQ Benevolence Values	
	Pretest	Posttest	Pretest	Posttest
Benevolence	5.34 (0.93)	5.60 (0.99)	5.14 (1.03)	5.53 (0.78)
Control	5.46 (1.04)	5.42 (1.09)	5.25 (1.00)	5.26 (0.79)

Note. SVS = Schwartz Value Survey; PVQ = Portrait Values Questionnaire. Standard deviations are in parentheses.

antecedent of self-persuasion processes (e.g., Sherman & Cohen, 2006; Steele, 1988), whereas our research reverses this causal arrow by showing that values can also be a product—not only a cause—of self-persuasion processes.

Third, our findings indicate that value change can be induced without providing individuals with fictitious feedback or information about social norms—both of which might create self-dissatisfaction (Rokeach & Ball-Rokeach, 1989); people may endorse benevolent values more when they discover that they have shown signs of benevolence all along. This procedure may therefore be useful not only in the laboratory, but also in field organizations that aim to influence their members' value preferences (e.g., business organizations, educational institutions).

Direct attempts for value change—employed by social institutions or work organizations—often backfire. In the context of work organizations, for example, leaders seeking to change values run the risk of being viewed as hypocrites (Cha & Edmondson, 2006), and employees often respond with decreased job satisfaction and organizational commitment, and increased stress along with burnout (Ashforth & Saks, 1996; Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Cable & Parsons, 2001; Van Maanen & Schein, 1979). Our research introduces self-persuasion as an alternative means of facilitating value change without threatening the autonomy or free will of students, employees, or societal members.

Despite the change in benevolence values following the intervention, they were positively correlated within participants over time (Experiment 1: $r = .43$, $p < .01$; Experiment 2: $r = .59$, $p < .01$; Experiment 3: $r_{SVS} = .83$, $p < .01$ and $r_{PVQ} = .79$, $p < .01$).² This evidence points to stability in the importance of values: It suggests that participants who emphasized benevolence relative to others before the intervention still emphasized it more than others at the end of the intervention (Experiments 1 and 2) and 4 weeks later (Experiment 3).

The samples in Experiments 1–3 are relatively small, and power analyses indicate medium power. However, the findings across the three studies are consistent with our hypothesis. Finding significant effects replicated across three samples—collected at different times, in two different cultures—highlights the robustness of the effect of the intervention. A notable limitation of our study is that all participants were university students, and the experiments have been conducted in an academic context. Future studies could test the value change intervention among other populations and in additional contexts. Also, although the two cultures included in the current research increase its generalizability, it is imperative to test the value-change intervention in other cultural groups. The products of the intervention included short essays in which the participants described a case in which they helped someone else (Exercise 3) and attempted to convince another person of the importance of benevolence values (Exercise 4). Both exercises yielded detailed, varied responses, in which the participants integrated their own experience with the information provided to them in Exercise 1. Analyzing this qualitative data

is beyond the scope of the current research. In the future, we hope to examine whether the content of the essays can serve to mediate or moderate the effect of the intervention.

Finally, in the current research, we studied change in the importance of benevolence values, which reflect the motivation to express care and concern for others and are highly important to most people in the majority of the world's cultures (Schwartz & Bardi, 2001). Would the value-change intervention be as effective in modifying the importance of other values as well? It is also unclear whether the value-change intervention can decrease, not only increase, the importance of values. Since values represent motivational goals, they are inherently desirable (Roccas et al., 2002; Schwartz, 1992). Can an external intervention decrease their importance? These questions raise not only research objectives, but also ethical challenges.

Notes

1. The items “*Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge*” from the PVQ and “*Forgiving*” from the SVS were dropped to increase reliability. The findings are essentially the same when these items are included in the indices.
2. It is likely that correlations are stronger in Experiment 3 because in this experiment, we measured pretest and posttest benevolence values with the same scales, whereas we used different scales in the first two experiments.

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