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BRIEF REPORT

You Owe It to Yourself: Boosting Retirement Saving With a Responsibility-Based Appeal

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Americans are not saving enough for retirement. Previous research suggests that this is due, in part, to people's tendency to think of the future self as more like another person than like the present self, making saving feel like giving money away rather than like investing in oneself. Using objective employer saving data, a field experiment capitalized on this phenomenon to increase saving. It compared the effectiveness of a novel message—one appealing to people's sense of "social" responsibility to their future selves—with a more traditional appeal to people's sense of rational self-interest. The social-responsibility-to-the-future-self message resulted in larger increases in saving than the self-interest message, but only to the extent that people felt a strong "social" connection to their future selves. These results broaden our understanding of the psychology of moral responsibility and refine our understanding of the role of future-self continuity in fostering intertemporal patience. They further demonstrate how understanding conceptions of the self over time can suggest solutions to important and challenging policy problems.

Keywords: intertemporal choice, temporal discounting, future-self continuity, saving behavior, field experiment

The need to motivate people to make short-term sacrifices in service of their long-term interests is at the heart of many of society's most pressing social and policy challenges. People must forego tasty but unhealthy food, exercise when they would rather relax, and save when they would rather spend. Unfortunately, people are notoriously reluctant to make such short-term sacrifices (e.g., Frederick, Loewenstein, & O'Donoghue, 2002).

A case in point, and the focus of the present research, is Americans' failure to save enough during their working lives to support themselves adequately in retirement (Bernheim, Forni, Gokhale, & Kotlikoff, 2000). Approximately half of all Americans are currently projected to be unable to maintain their preretirement standard of living in retirement (Munnell, Webb, & Golub-Sass, 2009).

One provocative explanation for this problem involves the notion, advanced by theorists in philosophy and economics, that a person at two different points in time is not really the same person (Parfit, 1971, 1987; Schelling, 1984; Strotz, 1955). Parfit (1971), for example, argued that to the extent that the future self is thought of as another person, it is rational to care less about the well-being of our future

selves than our present selves in the same way that it is rational to care less about the well-being of another person than the self.

Complementing this normative argument, research in psychology has provided evidence that people often do think about their future selves as though they were other people (Bartels & Rips, 2010; Ersner-Hershfield, Wimmer, & Knutson, 2009; Pronin, Olivola, & Kennedy, 2008; Pronin & Ross, 2006). Moreover, the tendency to think about the future self as an other is associated with a reluctance to make short-term sacrifices to ensure longer-term well-being (Bartels & Rips, 2010; Ersner-Hershfield, Wimmer, & Knutson, 2009), suggesting that this way of thinking may be a significant barrier to saving for retirement.

In the present research, we test an intervention designed to overcome this barrier and motivate people to save. This intervention is based on the insight that people are not motivated exclusively by selfish interests; they also care about and take pleasure in helping others (Dunn, Aknin, & Norton, 2008; Miller & Ratner, 1998). Thus, the tendency to think of the future self as a different person is not necessarily a barrier to saving. Perhaps people's prosocial inclination can be directed inward, toward the future self, motivating them to save more effectively than do appeals to self-interest.

We designed a message to appeal to people's sense of social responsibility to a future self who is heavily dependent on them—a sense of moral responsibility closely akin to that felt toward other people, such as family members, friends, and others whose welfare is of concern (Berkowitz & Daniels, 1963; Schwartz, 1970). In a sense, this intervention takes literally the notion of the future self as another person, making references to the future self in the third person and emphasizing the moral responsibility one has to a future self who is largely at the mercy of decisions made by the present self. We compared the effectiveness of this message to a more traditional control message appealing to people's sense of self-interest.

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Moderation by Feelings of Closeness to the Future Self

The self-interest message was predicted to be relatively ineffective at motivating saving because it is incompatible with people's tendency to think of the future self as an other. The social responsibility message was predicted to be more effective, but not universally so. Rather, factors analogous to the ones that govern people's willingness to help other people were expected to apply to the future self in this condition. That is, the effectiveness of the social responsibility message was predicted to depend on the degree of "interpersonal" closeness participants felt toward their future selves.

This prediction is foreshadowed by the philosopher Jennifer Whiting's (1986) critique of Parfit's (1971) assumption that thinking of the future self as an other necessarily means caring less about that future self. Pointing out that people are often willing to make personal sacrifices for close others, Whiting (1986) argued,

"that the same goes for our future selves; benefits to them can compensate for burdens imposed on our present selves, if our present selves care about them in ways analogous to those in which we care for our friends." (p. 560)

Thus, just as people were more generous with and more willing to help people who are similar to them or to whom they feel a strong social connection (Aknin, Sandstrom, Dunn, & Norton, 2011; Aron, Aron, Tudor, & Nelson, 1991; Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Galak, Small, & Stephen, 2010; Krebs, 1975), we predicted that people would be more responsive to the social responsibility appeal for saving to the extent that they had such feelings of closeness to their future selves. By contrast, we predicted that the self-interest appeal would be relatively ineffective at motivating all participants to save; that is, we did not have a strong reason to expect its effectiveness to vary based on feelings of closeness to the future self.

Overview of Research and Theoretical Contributions

In the present research, university staff members reported their feelings of closeness to their future, retirement-age selves. Participants were then randomly assigned to be exposed to a message encouraging them to save more for retirement that appealed either to their sense of rational self-interest or to a sense of social responsibility to the future self. We later obtained objective data on participants' postexperiment saving rates from the university.

This research makes important theoretical contributions in two traditionally unrelated areas of psychology. First, it challenges the current understanding of the psychology of moral obligation and social responsibility (e.g., Berkowitz & Daniels, 1963; Schwartz, 1970) by showing that appeals to a sense of social responsibility can motivate people to take care of themselves. This is a considerable departure from the conventional understanding of morality, which suggests that such a sense of responsibility cannot apply to the self. Second, it sheds light on the process by which feelings of "future-self continuity" increase intertemporal patience. Feelings of connectedness and similarity to the future self increase people's willingness to make short-term sacrifices in favor of longer-term benefits (e.g., Bartels & Urminsky, 2011; Ersner-Hershfield, Garton, Ballard, Samanez-Larkin, & Knutson, 2009); however, the mechanism by which this occurs is unclear. The view that follows from Parfit's (1971) argument is that the mechanism is self-interest: Feelings of

connectedness and similarity to the future self indicate the extent to which the future self is considered part of the self per se and, therefore, the extent to which benefits to that future self can be considered to accrue to the self and not to an other. In contrast, the mechanism suggested by the present theory is that feelings of similarity and connectedness indicate the extent to which the future self feels like a close (rather than a distant) other and, as a result, modulate the impulse to help that future self—to make a personal sacrifice for an other with whom the present self empathizes (Krebs, 1975). These mechanisms yield opposite predictions in the present design. If the mechanism involves social closeness and empathy, then participants with strong feelings of similarity and connectedness to the future self should respond more to the social responsibility message than to the self-interest one, as we predicted they would. If the mechanism is self-interest, the opposite pattern should obtain: Those participants should respond more strongly to the self-interest message than to the social responsibility one.

Method

Participants

Participants were 193 staff members at Stanford University who were eligible to participate in the university's contributory retirement savings plan and who met the a priori criterion that they were not already saving more than 10% of their salaries for retirement.¹ They were recruited through advertisements sent to staff e-mail lists and flyers posted in university buildings. The Stanford Benefits Office was unable to look up saving rates for eight participants (three in the self-interest condition and five in the social responsibility condition), $\chi^2(1) = 0.500, p > .47$, leaving a final sample of 185 (154 women, 31 men; $M_{\text{age}} = 41.32$ years; $SD_{\text{age}} = 11.14$; range: 22–65).

Materials and Procedure

Preexperiment saving rates. Upon arrival, participants logged into their online retirement accounts and looked up the percentage of every paycheck that they were already saving.

Measuring feelings of closeness to the future self. Next, participants completed a measure of felt closeness to their future, retirement-age selves. The measure included two items. Each comprised a set of seven Venn diagrams with progressively more overlap between two circles, labeled "Current self," and "Future self" (see Ersner-Hershfield, Garton, et al., 2009, for an example of this scale). The two items asked participants to select the Venn diagram that best represented (a) how similar and (b) how connected they felt to their future selves. The measure is based on ones used in previous literature to measure feelings of social closeness, either to another person or to one's future self (e.g., Aron, Aron, & Smollan, 1992; Bartels & Urminsky, 2011; Cialdini et al., 1997; Cwir, Carr, Walton, & Spencer,

¹ We used this criterion for two reasons. First, it is objectively unclear whether people who are already saving more than 10% should be saving more (Skinner, 2007). Second, and related to the first point, we expected people who were already saving more than that to be less amenable to the view that they should be saving more, both because 10% is often cited as the target saving rate by popular personal finance guides (e.g., Clason, 2004) and because it is considerably above the descriptive normative saving rate (Organisation for Economic Co-operation and Development, 2011).

2011; Ersner-Hershfield, Garton, et al., 2009). The two items were combined to form a composite ($\alpha = .74$).

Manipulation. Next, participants were randomly assigned to read one of two messages encouraging them to increase their saving rates. Both messages began with identical discussions of the importance of saving for retirement. The manipulation was embedded in the final paragraph. In the self-interest condition, the paragraph read,

We urge you to consider *your long-term interest* and to start saving more now. After all, *your long-term well-being is at stake*. Your decisions now will determine how much *money is available to you when you retire* [italics added to highlight differences between conditions].

In the social responsibility condition, the paragraph read,

We urge you to consider *the responsibility you have to yourself in retirement* and to start saving more now. After all, *your “future self” is completely dependent on you*. Your decisions now will determine how much *financial security your future self can count on* [italics added].²

Next, participants were asked to indicate how persuasive they thought the message was to confirm that the two messages were well matched on this dimension. Participants then indicated whether, in the coming 2 weeks, they intended to (a) increase, (b) make no change to, or (c) decrease their retirement saving rate. Participants who indicated an intention to increase were provided an opportunity to do so immediately and received two follow-up reminders.³

Postexperiment saving rates. We obtained an objective measure of participants' postexperiment saving rates from the Stanford Benefits Office at least 2 weeks after their participation was complete.

Results

A *t* test confirmed that the two messages were perceived to be equally persuasive, $t(183) < 1$, $p = .5$. We computed the change in participants' saving rates by subtracting each participant's pre-experiment saving rate from his or her postexperiment saving rate. We then regressed the change in saving rates on closeness to the future self, a dummy variable representing message condition, and the interaction between these two variables.⁴ Neither main effect approached significance, $\beta_s(N = 185) < .14$, $ps > .18$. As predicted, however, there was a significant interaction between condition and feelings of closeness to the future self, $\beta(N = 185) = .269$, $p = .011$, $\Delta R^2_{\text{adjusted}} = .03$. This result did not interact with participants' age, $\beta(N = 156) = .70$, $p = .12$, or gender, $\beta(N = 182) = .06$, $p = .64$ (although future research could examine the gender question with a more even gender distribution).

We further probed the nature of this interaction using simple slopes analysis (Jaccard, Wan, & Turrisi, 1990) to test the relation between condition and saving at 1 standard deviation above and 1 standard deviation below the mean of felt closeness to the future self. As hypothesized, for participants high in closeness, the social responsibility message resulted in larger increases in saving rates (predicted increase: 0.97 percentage points) than did the self-interest condition (predicted increase: 0.12 percentage points), $t(181) = 2.80$, $p = .006$, $d = 0.52$. For participants low in closeness, the two messages did not differ in their effectiveness, $t(181) = -1.06$, $p > .29$.

Discussion

These findings confirm our central hypothesis: People who feel a close “social” connection to their future selves are more effectively motivated to save by messages appealing to their sense of social responsibility to that future self than by messages appealing to their sense of rational self-interest. Meanwhile, people who do not feel close to their future selves are relatively (and equally) unresponsive to both types of appeal. Notably, we observed this pattern among people who were making real financial decisions involving their actual salaries and retirement accounts.

While the condition effect on saving rates among those high in closeness may seem small in absolute terms (a difference of 0.85 percentage points), an increase in saving rates of this size, over the course of our participants' working lives, will be of considerable practical significance. For example, a 30-year-old man earning the national median salary of \$45,485/year (Getz, 2010) who increased his saving rate from 5% to 5.85% could expect to have an additional \$68,797 in savings when he retired at age 65 years—approximately 1.5 years' worth of additional income replacement.⁵

On a theoretical level, these findings add new richness to an emerging picture in recent research of the way people think about themselves over time and to the way we conceptualize the notion of moral obligation. In the social responsibility condition, in which the future self was overtly framed as an other, people responded to that future self in a way that is strikingly similar to the way people behave toward other people—helping the future self when they felt close to him or her and not, when they did not. By applying the notion of social responsibility to research on future-self continuity,

² One might wonder whether the wording of the social responsibility message, in particular, the references to “responsibility” and “financial security” might not only have appealed to a sense of social responsibility but also have triggered a more general conscientiousness motive. If individual differences in closeness to the future self were correlated with individual differences in conscientiousness, this could be an alternative explanation of the predicted interaction. We believe this is unlikely, however, for two reasons. First, closeness to the future self is, on its face, conceptually distinct from conscientiousness, which refers to a tendency to be generally organized, prudent, and diligent (John, Naumann, & Soto, 2008) and recent research found that perceived similarity to the future self (one of the two highly correlated components of closeness to the future self) was uncorrelated with conscientiousness, $r(70) = .016$, $p = .89$ (Hershfield, Cohen, & Thompson, in press). Second, the self-interest appeal contained language that seems equally likely to have resonated with an orientation toward conscientiousness, including references to participants' “long-term interest” and “long-term well-being.”

³ Participants who indicated an intention to increase their saving rates were invited to make that change immediately. If they declined, they were asked to form a plan for implementing their intention (Gollwitzer, 1999). Those participants then received two weekly reminders unless they indicated that they had already made a change. Forty participants indicated an intention to make an increase. Results did not differ as a function of whether participants reported an intention to increase their saving rates.

⁴ Four participants made changes in their saving rates that were more than 2.58 standard deviations from the mean and therefore considered outliers. Those four scores were replaced with the closest nonoutlying value in the sample (Tabachnick & Fidell, 2007). Analyses retaining the original values yield the same results.

⁵ This assumes an average annual return of 5%, an employer match of 50%, and an annual salary increase of 2% (ING, 2011).

the present research bridges the divide between two previously unrelated areas of psychological theory, providing important and novel insights about both.

Indeed, taken together with other recent research on how people think of the self over time (e.g., Bartels & Rips, 2010; Pronin & Ross, 2006) and work showing self-like treatment of close others (e.g., Aron et al., 1991; Cialdini et al., 1997) these results contribute to a growing sense that the psychological boundary between self and other is blurrier than was once thought.

In conclusion, these results demonstrate that by understanding and taking account of the complicated relationship people have with their future selves, it is possible to produce effective interventions to modify behavior in ways that improve people's lives and help meet pressing policy challenges.

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