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OnlineFirst Version of Record - Dec 19, 2013

What is This?

Self-Affirmation Among the Poor: Cognitive and Behavioral Implications

Crystal C. Hall[1], Jiaying Zhao[2,3], and Eldar Shafir[4,5]

[1]Evans School of Public Affairs, University of Washington; [2]Department of Psychology, University of British Columbia; [3]Institute for Resources, Environment and Sustainability, University of British Columbia; [4]Department of Psychology, Princeton University and [5]Woodrow Wilson School of Public and International Affairs, Princeton University

Abstract

The poor are universally stigmatized. The stigma of poverty includes being perceived as incompetent and feeling shunned and disrespected. It can lead to cognitive distancing, diminish cognitive performance, and cause the poor to forego beneficial programs. In the present research, we examined how self-affirmation can mitigate the stigma of poverty through randomized field experiments involving low-income individuals at an inner-city soup kitchen. Because of low literacy levels, we used an oral rather than written affirmation procedure, in which participants verbally described a personal experience that made them feel successful or proud. Compared with nonaffirmed participants, affirmed individuals exhibited better executive control, higher fluid intelligence, and a greater willingness to avail themselves of benefits programs. The effects were not driven by elevated positive mood, and the same intervention did not affect the performance of wealthy participants. The findings suggest that self-affirmation can improve the cognitive performance and decisions of the poor, and it may have important policy implications.

The stigma of poverty can be all-encompassing. Research shows that low-income individuals suffer from the stigma and stereotyping associated with being poor: They are scorned, perceived as incompetent, and disrespected (Fiske, 2011; Kerbo, 1976). The stigma of poverty includes the feeling of being viewed as a societal burden, lazy and unmotivated. Such stigma can lead to cognitive distancing (Reutter et al., 2009), and it can cause the poor to underperform cognitively (Mani, Mullainathan, Shafir, & Zhao, 2013; Mullainathan & Shafir, 2013). Under the guise of what has come to be known as "welfare stigma" (Horan & Austin, 1974; Rogers-Dillon, 1995), it can also lead them to forego important benefits offered in the public (Bissett & Coussins, 1982) and nonprofit (Kissane, 2003) sectors. When striving to provide products and services that might help the poor, poverty advocates thus face the additional hurdle of the stigma and stereotype threats associated with living in poverty.

A prominent theoretical advance in the interpretation and manipulation of stigma and stereotype threat is self-affirmation theory, which posits that people are motivated to sustain a sense of self-worth and integrity (Steele, 1988). When self-worth is threatened—when certain products or services prove stigmatizing or intimidating, for example, or when members of a stigmatized group perform well in stereotype-relevant domains (e.g., when African American students show good performance in classrooms, where stereotypes suggest that they do less well)—defensive responding and concerns about being judged according to stereotypes, along with efforts to suppress negative thoughts and emotions in the service of self-regulation, are presumed to consume executive resources (Schmader, Johns, & Forbes, 2008) and can disrupt performance (Spencer, Steele, & Quinn, 1999; Steele, 1997). In a test presented to older adults, for example, the stereotypical threat of having impaired memory caused a transitory reduction in executive-control resources (Mazerolle,

Corresponding Author:
Crystal C. Hall, Evans School of Public Affairs, University of Washington, Parrington Hall, Box 353055, Seattle, WA 98195
E-mail: hallcc@uw.edu

Régner, Morisset, Rigalleau, & Huguet, 2012). In another study, a test purportedly measuring intellectual ability was found to diminish the performance of students of lower socioeconomic status in a manner similar to that observed with race or gender stereotypes (Croizet & Claire, 1998).

In contrast, when aspects of the self, even those unrelated to the threat, are affirmed (e.g., when people are led to consider other, positive self-aspects), the need to sustain one's sense of self-worth is met, and people respond less defensively to situations that otherwise would appear threatening (Aronson, Cohen, & Nail, 1999; Sherman & Cohen, 2006). One celebrated application used self-affirmation as an effective tool to reduce the racial achievement gap among middle school students (G. L. Cohen, Garcia, Apfel, & Master, 2006; G. L. Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009). In another study, self-affirmation was found to increase people's receptivity to potentially threatening health-related information (cf. Harris & Epton, 2010; Howell & Shepperd, 2012).

In the present experiments, we hypothesized that by reminding low-income individuals of important sources of self-worth and pride, self-affirmation would alleviate the psychological threat and distraction associated with the stigma of poverty, which often leads to poor cognitive performance and general disengagement. Instead, we expected self-affirmation to boost cognitive performance as well as facilitate taking advantage of options, such as benefit-program applications, that might otherwise seem threatening. To investigate this hypothesis, we conducted a series of randomized field experiments testing a novel self-affirmation intervention among poor American adults at an urban soup kitchen. Participants' cognitive performance was evaluated via two well-known tasks, and their receptivity to public benefits programs was measured. Self-affirmation manipulations have typically required participants to write about an important personal value (McQueen & Klein, 2006). Because of literacy limitations, we developed a novel oral intervention, in which participants were asked to describe verbally an experience of feeling successful and proud. We found that self-affirmation improved the cognitive performance of low-income participants and promoted their interest in social benefits programs. Affirmation did not improve the cognitive performance of wealthier participants. These experiments mark a novel exploration of self-affirmation as a means to address the stigma of poverty.

Experiment 1

We first examined the impact of self-affirmation on the cognitive performance of the poor. We predicted that a self-affirmation intervention would alleviate the psychological threat associated with the stigma of poverty, thereby improving performance.

Participants

Participants were clients at an urban New Jersey soup kitchen. The experiment was conducted during lunchtime service. Ninety-five adults initially participated, but 15 withdrew before completion of the experiment; their data were removed, leaving a total of 80 participants (38 female, 42 male; mean age = 41 years). Participants' average reported annual household income was $8,000, well below the poverty line.

Stimuli and procedure

We used two tests to measure cognitive performance. The first was Raven's Standard Progressive Matrices, a universally accepted measure of fluid intelligence, the capacity to think logically independent of background knowledge (Engle, Tuholski, Laughlin, & Conway, 1999; Raven, 2000). Each matrix presents a sequence of shapes with one shape missing, and participants must choose the option that best fits in the missing space. Twelve matrices of appropriate difficulty (based on pilot studies with other people at the same soup kitchen) were used.

Our second measure was a test of cognitive control (Davidson, Amso, Anderson, & Diamond, 2006), the ability to adapt cognitively as rules change and goals conflict (J. D. Cohen, Dunbar, & McClelland, 1990; Norman & Shallice, 1986). Participants had to respond as quickly as possible to objects (hearts and flowers) appearing on either side of a screen—when a heart appeared, participants were to press a key on the same side as the heart; when a flower appeared, they were to press a key on the opposite side of the flower (contrary to their impulse to press the same-side key). Fluid intelligence and cognitive control are fundamental to many cognitive abilities, from attention and planning to remembering and self-control (see Mullainathan & Shafir, 2013).

Participants were informed that the experiment concerned people's everyday experiences and were randomly assigned to an affirmed condition or a neutral condition. Those in the affirmed intervention were asked to describe a personal experience that made them feel successful and proud; those in the neutral condition were asked to describe their daily meal routine. Participants were then left alone in a room to record their personal narratives into a tape recorder for at least 3 min. (See the Supplemental Material available online for details on procedure.)

Results and discussion

We computed accuracy on Raven's matrices and cognitive control tests in the affirmed and the neutral conditions (Fig. 1). Affirmed participants gave 68.2% correct responses (*SD* = 19%) on Raven's matrices, compared
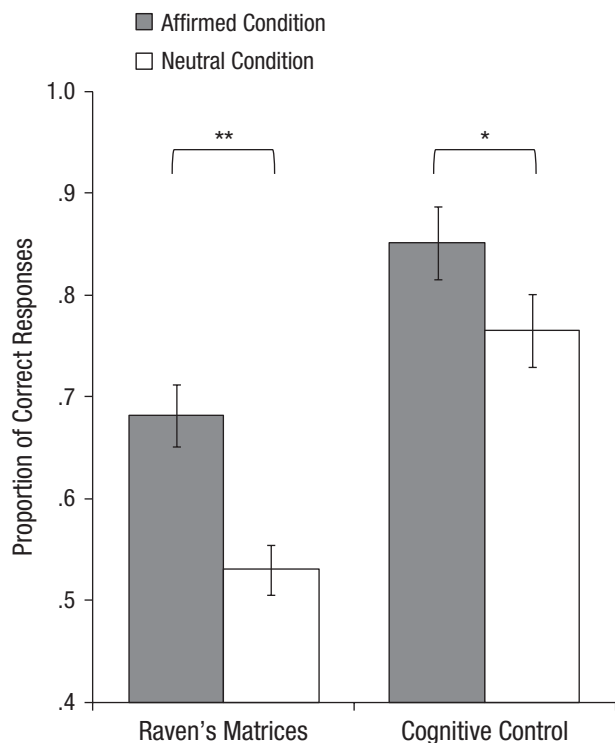
Fig. 1. Results from Experiment 1: mean proportion of correct responses on Raven's Standard Progressive Matrices (Raven, 2000) and a cognitive control task among low-income participants in the affirmed and neutral conditions. Error bars reflect ±1 *SEM*. Asterisks indicate a significant difference between conditions (*p < .05, **p < .01).

with 53.0% correct (*SD* = 23%) among participants in the neutral condition, $t(78)$ = 3.20, p < .01, d = 0.72. On the cognitive control task, affirmed participants were 85.1% accurate (*SD* = 16%), and participants in the neutral condition were 76.5% accurate (*SD* = 22%), $t(78)$ = 2.01, p < .05, d = 0.45.[1] (Although roughly 70% of participants were African American, there was no statistical interaction, p > .80, between race and condition, consistent with other findings that poor stereotypes transcend race; Cuddy, Fiske, & Glick, 2007.) The observed effect of self-affirmation on the cognitive performance of the poor was comparable in size to the difference in cognitive performance between an average 55-year-old and 45-year-old reported by Pontón and colleagues (1996).

Experiment 2a

Whereas our presumption was that self-affirmation helps reduce threat and distraction, an alternative explanation is that it induces a positive mood, which itself may improve cognitive performance. We ran a follow-up experiment to examine whether the effects of self-affirmation on cognitive performance could be attributed to positive mood.

Participants

A new group of 60 participants at the same soup kitchen (46 female, 14 male; mean age = 41.1 years) were randomly assigned to the affirmation intervention and to a positive-mood intervention.

Stimuli and procedure

The affirmation intervention was identical to that of Experiment 1. In the positive-mood condition, participants viewed funny videos, which an independent group of participants (from the same soup kitchen) had earlier rated high on a "funniness" scale. As a manipulation check, we asked participants to rate their mood on a 5-point scale before and after watching the videos. Participants indeed showed a significant increase in positive mood after viewing the videos (*M*s = 3.6 before and 4.45 after), $t(34)$ = 5.77, p < .01, d = 0.97 (we used two separate videos, which had indistinguishable impacts on funniness ratings and cognitive performance). Following the affirmation or mood interventions, all participants completed the same Raven's matrices and cognitive control tests as in Experiment 1.

Results and discussion

Participants' responses to Raven's matrices in the affirmed condition were 66.4% correct (*SD* = 19%) on average, essentially replicating the accuracy rate observed in Experiment 1. Participants in the positive-mood condition, in contrast, averaged 54.7% correct (*SD* = 24%). This result was reliably worse than in the affirmed condition, $t(58)$ = 2.10, p < .05, d = 0.54, reliably worse than the average in the affirmed condition in Experiment 1, $t(53)$ = 2.43, p < .05, d = 0.62, and statistically indistinguishable from the average in the neutral condition of Experiment 1. In the cognitive control task, affirmed participants' average accuracy was 85.5% (*SD* = 17%), again essentially replicating the earlier experiment.

In contrast, average accuracy in the positive-mood condition was 74.7% (*SD* = 22%), which is reliably less accurate than in the affirmed condition, $t(58)$ = 2.12, p < .05, d = 0.55, reliably less accurate than in the affirmed condition in Experiment 1, $t(53)$ = 2.14, p < .05, d = 0.54, and statistically indistinguishable from accuracy in the neutral condition of Experiment 1. The results are summarized in Figure 2. They suggest that self-affirmation's effects cannot be attributed to positive mood. Note, furthermore, that the neutral condition in Experiment 1, in which participants described their meal routine, could theoretically have highlighted the stigma. Replicating the results in the positive-mood condition without the
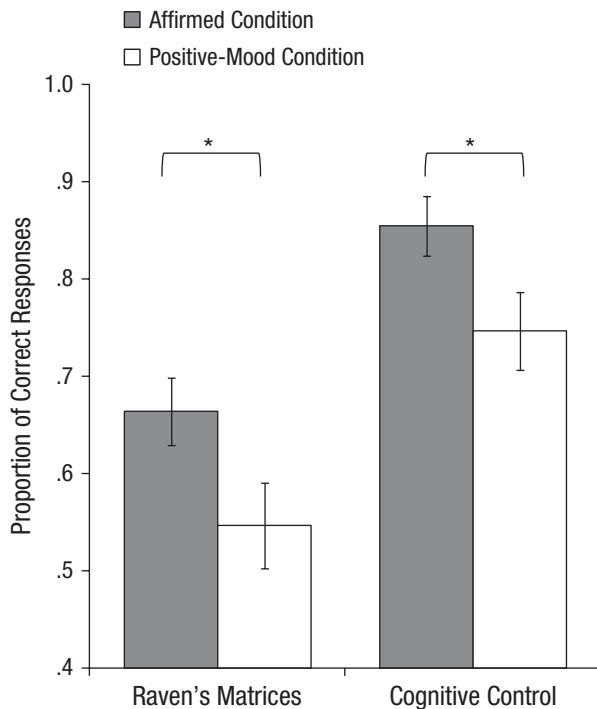
Fig. 2. Results from Experiment 2a: mean proportion of correct responses on Raven's Standard Progressive Matrices (Raven, 2000) and a cognitive control task among low-income participants in the affirmed and positive-mood conditions. Error bars reflect ±1 *SEM*. Asterisks indicate a significant difference between conditions (*$p < .05$).

potentially highlighted stigma eliminated this potential confound.

Experiment 2b

Even if the increase in performance was not mood related, perhaps some other factors, unrelated to stigma, served to boost cognitive performance following an affirmation manipulation. To explore this possibility, we replicated Experiment 1 with a group of high-income participants. If the effect of self-affirmation is to alleviate stigma, we should not expect the same cognitive improvement among high-income participants.

Participants

Sixty adults (32 female, 28 male) were recruited at the Princeton Public Library and were age-matched to those in Experiment 1. The average reported annual household income of these participants was $94,800, substantially higher than the U.S. median household income.

Stimuli and procedure

The stimuli and procedure were identical to those in Experiment 1. Participants were randomly assigned to the

affirmed condition ($n = 30$) and to the neutral condition ($n = 30$).

Results and discussion

Performance on Raven's matrices and the cognitive control task in the affirmed and neutral conditions was computed (Fig. 3). Affirmed participants averaged 85.3% correct ($SD = 9\%$) responses on Raven's matrices, compared with 82.2% ($SD = 16\%$) obtained by participants in the neutral condition, $t(58) = 0.93$, $p = .36$, $d = 0.24$. In the cognitive control task, average accuracy was 86.2% ($SD = 14\%$) in the affirmed condition and 86.0% ($SD = 15\%$) in the neutral condition, $t(58) = 0.04$, $p = .97$, $d = 0.01$. These differences were not reliable. Self-affirmation had no observable effect on the performance of high-income participants.

Experiment 3

The effects of poverty stigma are likely to reach beyond cognitive performance to effort and choice as well. In particular, the stigma of poverty has been identified as a factor impinging on people's participation in benefits programs (see, e.g., Currie, Grogger, Burtless, & Schoeni, 2001, for the role of stigma in participation in food stamp programs). The current experiment, conducted at
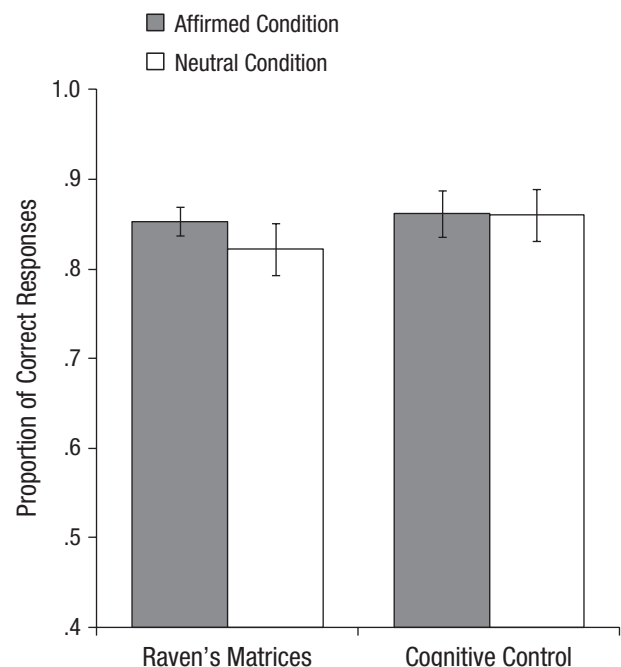

Fig. 3. Results from Experiment 2b: mean proportion of correct responses on Raven's Standard Progressive Matrices (Raven, 2000) and a cognitive control task among high-income participants in the affirmed and neutral conditions. Error bars reflect ±1 *SEM*.

the same soup kitchen as in Experiment 1, explored self-affirmation as an intervention intended to increase benefits enrollment.

Participants

Fifty-four participants participated in the experiment; 6 withdrew before completion, and their data were removed, leaving a total of 48 participants.

Stimuli and procedure

Participants were randomly assigned to the same affirmation and neutral conditions described in Experiment 1. On completion of what they thought was the full experiment, participants were thanked and given a small remuneration. On their way out of the soup kitchen, participants passed in front of manned tables offering informational fliers regarding Earned Income Tax Credits (EITCs) and Volunteer Income Tax Assistance (VITA), two programs targeting the working poor, which many participants were eligible for but rarely enrolled in. An experimenter (blind to participant condition) recorded two behavioral measures: (a) whether or not each participant stopped to discuss the flier being offered and (b) whether or not the participant took a flier with them on departure. (See the Supplemental Material for more detail on the procedure.)

Results and discussion

As summarized in Figure 4, 58% of participants in the affirmed condition stopped to inquire about the benefits, compared with 40% in the neutral condition, $\chi^2(1, N = 48) = 1.33$, n.s. Of those who stopped, 79% in the affirmation condition and only 36% in the neutral condition took a flier, $\chi^2(1, N = 24) = 3.7$, $p = .05$. Overall, 46% among those in the affirmation intervention took the flier compared with only 15% in the neutral condition ($p < .01$).

Previous research found that simple self-affirmation (e.g., a reminder of one's core values; Legault, Al-Khindi, & Inzlicht, 2012) was sufficient to reduce people's defensiveness against threatening information. Similarly, our affirmation intervention significantly increased participants' openness to information that might have otherwise appeared threatening (Bertrand, Mullainathan, & Shafir, 2006).

General Discussion

The conditions of the poor, and their ability to manage and possibly climb out of poverty, are at the center of society's economic and ethical concerns, and policy agenda. Behavioral research has recently been applied to policy-relevant challenges and has explored, among
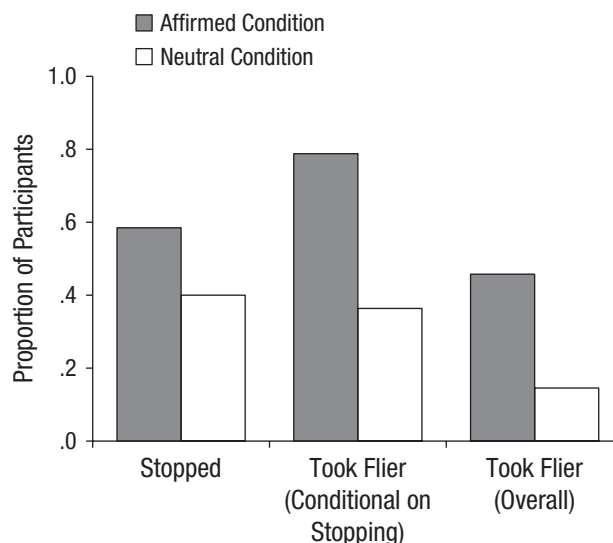

Fig. 4. Results from Experiment 3: mean proportion of low-income participants in the affirmed and neutral conditions who stopped to inquire about benefits programs and who took a flier after stopping. The overall proportion of participants in each condition who took a flier is also shown.

other things, the remarkable potential of simple interventions to influence cognition and behavior (Shafir, 2012; Thaler & Sunstein, 2009). The poor, however, have received relatively little attention as part of this endeavor, despite the existence of clear candidate interventions that could increase their well-being.

It is worth noting that the working cognitive capacity tested in these experiments is part of what people rely on to solve problems, remember, focus attention, and even control their impulses, all activities that in the past the poor have been observed to do less well than those who are more affluent (see Mullainathan & Shafir, 2013, for further discussion). In the present experiments, we found that self-affirmation contributes more to fluid intelligence and cognitive control among the poor than it does among the rich. High-income participants showed no comparable gains, and no interaction was observed with participants' race. In addition, poor participants who self-affirmed were significantly more likely to avail themselves of information pertinent to social benefits offerings than their more affluent peers. All low-income participants were well below the poverty level and entitled to various social assistance programs. It is easy to imagine that availing themselves of such programs could have long-term and compounding benefits.

The findings suggest that behaviorally insightful interventions in contexts of stigma and threat can have a substantial impact on reasoning and decision making and, among other things, may reduce barriers to program participation. At the same time, more research is needed to

ascertain the boundary conditions of such effects and the extent to which they can be scaled up. Previous affirmation interventions were presented in written format, whereas here we conducted them orally. Interventions of this kind can be quick and relatively nonintrusive. And although some (e.g., G. L. Cohen et al., 2009; Sherman et al., 2013) have been found to persist for years, it is possible that others, especially when brief and in unique settings, may linger only a short while and prove more effective in some contexts than in others. During one of our attempts at a similar oral affirmation procedure to promote savings among low-income participants who arrived for help with filling out their taxes, administrators were unable to sufficiently control the delay between intervention and enrollment decisions (possibly diluting the intervention's impact). We thus failed to observe the desired effects. Future research should explore issues of persistence and robustness, investigating where a well-timed intervention could have substantial impact at a low cost and on a large scale.

The salience of stigmatized identities may not always be obvious. In the present context, poverty represented a highly salient identity, possibly made all the more palpable by the interaction with researchers in the context of a soup kitchen. This may occur in other, similar settings, for example, in interactions with government workers at social welfare offices, but it may be less obvious at school or in the workplace. More generally, this research touches on the question of the role that poverty, as opposed to personal characteristics, plays in the behaviors of the poor. The context of poverty produces profound challenges—cognitive, social, and emotional—that can influence thought and perception and often lead the poor to exhibit suboptimal behaviors (Mani et al., 2013; Mullainathan & Shafir, 2013). Self-affirmation appears to help remove threatening and distracting thoughts, thereby producing better cognitive performance and increasing willingness to entertain otherwise stigmatizing benefits and services. It may help counteract the paradoxical effects of visits to social services providers, testing venues, or places of work, which may often elevate a stigma's salience, diminishing performance just when it is needed most.

Author Contributions

C. C. Hall, J. Zhao, and E. Shafir contributed equally to this work. All authors approved the final version of the manuscript for submission.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Funding

Supplemental Material

Additional supporting information may be found at http://pss .sagepub.com/content/by/supplemental-data

Note

1. The present analyses include all trials; a similar pattern—in which affirmed participants performed better than participants in the neutral condition—obtained when analysis was restricted to incompatible trials (i.e., trials with response conflict—those that required participants to press a key opposite to the symbol that appeared).

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