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Relational selves as self-affirmational resources ☆

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Abstract

Three studies examined the self-affirmational role of relational selves, or aspects of the self in relation to significant others. The overriding hypothesis was that individuals who view relational self-aspects as core to their identity are particularly likely to use them as self-affirmational resources in the face of threat. Supporting this, threat was especially likely to lead individuals for whom relationships are highly self-defining to spontaneously refer to relational self-aspects in a subsequent, self-relevant task. Moreover, spontaneous and induced relational self-affirmations in response to threat were especially esteem-repairing for such individuals. Together, these findings carve out a much-needed role for relational self-aspects in the self-affirmation literature, and dovetail with mounting appreciation of the far-ranging impact of significant others on the self-system.

Keywords: Relational self; Self-affirmation; Self-definition; Self-concept; Defense

1. Introduction

> Properly speaking, a man. . ..has as many different social selves as there are distinct groups of persons about whose opinion he cares. (James, 1890)

Epitomized by the words of William James, the notion that the self is profoundly influenced by significant others is unlikely to be contested. Yet the expansive literature on the self has often revealed more about the impact of strangers, acquaintances, or hypothetical

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others on the self, than about the influence of significant others (e.g., family, friends, romantic partners). Over the past 15 years or so, however, this state of affairs has begun to change, as theory and research have begun to realize James's early insights more fully than ever before. Mounting evidence from social, clinical, personality, and cultural perspectives point to the importance of *relational selves*, which refer to aspects of the self in the context of relationships with significant others (e.g., "me when around Mom" or "me with my spouse"). Relational aspects of the self have been implicated in a broad range of psychological processes and phenomena (for a review, see Chen, Boucher, & Tapias, 2006). For example, they may shape the information we attend to, the goals we pursue, and the emotions we experience. The present studies extend the boundaries of this influence by examining the role of relational selves in people's defensive maneuvers in the face of threat.

1.1. Self-affirmation theory

According to self-affirmation theory (Steele, 1988), the overriding goal of the self-system is to defend one's self-integrity, the sense that one is a "good" person. Accordingly, when the self is threatened in some manner, people enact defensive strategies aimed at restoring their self-worth. One strategy involves affirming a valued aspect of the self in a domain unrelated to the threat. For example, a student whose self-worth is threatened by a poor grade on a chemistry midterm may affirm or restore her self-integrity by reminding herself of self-aspects unrelated to her academic performance, such as her many years of volunteer work with the homeless.

The basic tenets of self-affirmation theory have garnered support in research domains as diverse as dissonance, health behavior, prejudice, stress, social comparison, and terror management (for a review, see Sherman & Cohen, 2006). However, because the theory was conceived in an intellectual atmosphere dominated by Western, individualistic views of the self as a bounded, autonomous entity striving for positive uniqueness (Markus & Kitayama, 1991, 1994), most of this work has focused, at least tacitly, on the personal or individual self, implicitly treating aspects of research participants' individual selves (e.g., one's personal values) as self-affirmational resources. This emphasis on the individual self can also be seen in research outside of the self-affirmation tradition. For example, Dodgson and Wood (1998) showed that threat in the form of failure feedback increases the accessibility of high self-esteem individuals' personal strengths, and low self-esteem individuals' personal weaknesses.

1.2. Affirming relational aspects of the self

Despite the longstanding emphasis on individual aspects of the self, in a recent review of the self-affirmation literature Sherman and Cohen (2006) noted growing evidence for the role of collective selves, or aspects of the self as a group member (e.g., Tajfel, 1982; Turner, 1985), in self-affirmation processes. What about relational aspects of the self? Relational selves are increasingly recognized as one of three core levels of self-definition, alongside individual and collective levels (e.g., Brewer & Gardner, 1996; Sedikides & Brewer, 2001), yet their possible role as self-affirmation resources has received little explicit attention. Consistent with this possibility, though, Sherman and Cohen noted that when people are given the opportunity to write about a cherished personal value—one of the most

widely used self-affirmation manipulations—relationships with significant others are often among the top-ranked values. Thus, participants in prior work who chose to write about a relationship value might be seen as an initial source of evidence, albeit indirect, for the use of relationship-related aspects of the self as a self-affirmational resource.

Other research has shown that after receiving threatening feedback, low self-esteem individuals shift toward defining the self in interdependent terms, as assessed with Singelis's (1994) Self-Construal Scale (Vohs & Heatherton, 2001). This scale refers to both relationship partners and group memberships, making it difficult to separate the self-affirmational role of relational versus collective selves. Nonetheless, this work is at least consistent with the notion that relational aspects of the self per se, rather than relationship-related values, may have self-affirmational value.

Also consistent is research showing the use of romantic relationships as a self-affirmational resource. Specifically, when threatened, high self-esteem people reported increased confidence in their romantic partners' love and affection (Murray, Holmes, MacDonald, & Ellsworth, 1998; see also DeHart, Pelham, & Murray, 2004). Along similar lines, upon engaging in a threatening upward comparison with their romantic partners, high-closeness participants rated their relationship qualities more positively (Lockwood, Dolderman, Sadler, & Gerchak, 2004). In other work, post-decisional dissonance was aroused among Asian Canadians who were forced to make a choice on behalf of a friend (Hoshino-Browne et al., 2005). Later, participants who wrote about a value that was important to themselves and their families did not exhibit the spreading of alternatives effect, suggesting that the shared value was affirming. Finally, research indicates that visualizing a positive relationship upon receiving threatening feedback may be affirming in that it enhances receptiveness to additional feedback in the threat domain (Kumashiro & Sedikides, 2005).

1.3. The present research

The present research extends the above findings in several crucial respects. First, we know of no research that has explicitly conceptualized relational selves in self-affirmational terms. Rather, the focus has been on relationship-related values, relationships, or personal values shared with close others as self-affirmational resources. By contrast, dovetailing with rising awareness of the importance of aspects of the self in relation to significant others (e.g., Andersen & Chen, 2002; Baldwin, 1997; Mikulincer, 1995), the current studies directly examined the use of relational self-aspects as self-affirmational resources, operationalizing them in a manner consistent with prevailing theories of the relational self.

Second, we tested the prediction, derived from self-affirmation theory, that relational selves may serve as self-affirmational resources only when these self-aspects are a core source of identity. For example, after threatening participants by arousing dissonance, Steele and Liu (1983) found that participants who had a chance to affirm an important self-aspect did not show dissonance-reducing attitude change, whereas those who focused on an unimportant aspect did. In another study, Steele, Hoppe, and Gonzales (1986) found that when threatened by post-decisional dissonance, science but not business majors who put on a lab coat did not show the spreading of alternatives effect. Putting on the lab coat served as an opportunity to affirm an important self-aspect only for science majors. In the present studies, we predicted that people who view relational self-aspects as core elements of their identity would be most likely to rely on relational selves as a self-affirma-

tional resource when threatened, and would enjoy the most self-esteem benefits from doing so.

To identify individuals who view relationships as core to their self-definition, Study 1 drew on wide-ranging theory and research indicating that relationships are more self-defining for women than men. For example, Josephs, Markus, and Tafarodi (1992) found that self-esteem hinges on having successful relationships for women but not men. More recently, Cross and Madson (1997) proposed that much of the evidence for gender differences in cognition, affect, motivation, and behavior can be explained by the tendency for US women to construct and maintain a relational construal of the self, whereas men tend to hold a more independent construal—a proposition borne out in subsequent research (e.g., Cross, Bacon, & Morris, 2000; Gabriel & Gardner, 1999). Given these gender differences, we hypothesized that women should be more likely than men to use relational self-aspects as self-affirmational resources in the face of threat.

In Studies 2 and 3, we directly assessed individual differences in the self-definitional importance of relationships. Specifically, building on Cross and Madson's (1997) analysis, Cross et al. (2000) developed the Relational-Interdependent Self-Construal (RISC) scale, a direct measure of the importance of relationships to the self-concept. For high scorers on this scale, the self is defined in terms of close relationships, and "self-integrity. . .is not so much a process of affirming a core, stable set of attributes that define the 'real' self, but rather a process of affirming the self in relationships" (Cross, Gore, & Morris, 2003, p. 935). We therefore predicted that, like women, high-RISC individuals should be particularly likely to rely on relational aspects of the self as self-affirmational resources when confronted with a threat to the self.

1.4. Overview of studies

As an overview, in all three studies we threatened participants who view relationships as high (i.e., women and high-RISCs) or low (i.e., men and low-RISCs) in self-definitional importance with failure feedback, and then assessed or induced references to relational self-aspects in a subsequent task. Study 1 assessed participants' spontaneous references to relational self-aspects in a self-description task. The central prediction was that, when threatened, women but not men would be more likely to spontaneously characterize themselves using relational self-descriptors. Study 2 examined whether the spontaneous tendency to describe the self in relational terms, predicted among women but not men in Study 1, would be linked to more positive self-evaluations among high- relative to low-RISCs, suggesting the esteem-repair value of spontaneous relational self-affirmations. In addition, this study included a condition where participants were induced to affirm a relational self-aspect to test whether such induced relational self-affirmations would have more esteem benefits for high- than for low-RISCs. Finally, Study 3 confirmed the adequacy of the threat manipulation used in Study 2, and extended the generality of the results of Study 1 by assessing spontaneous references to relational self-aspects in participants' "diary entries" rather than explicit self-descriptions.

2. Study 1

In Study 1's 2×2 (Gender $\times$ Threat) between-subjects design, we manipulated threat by giving participants bogus test feedback. In past work, after a threat manipulation, partic-

ipants have usually been presented with a specific self-affirmational option (e.g., writing about a cherished, personal value). In contrast, Study 1's participants were simply asked to describe themselves, without any further instructions, thereby enabling us to assess the degree to which threat would elicit relatively spontaneous references to relational aspects of the self. Study 1's key prediction was that, relative to their non-threatened counterparts, threatened women but not men would use relational aspects of themselves as a self-affirmational resource, as seen in the heightened tendency to characterize themselves in relational terms in the self-description task.

2.1. Method

2.1.1. Participants

One hundred and forty-nine undergraduates (83 women, 66 men) at a large public university participated in small groups in partial fulfillment of psychology course requirements.[1]

2.1.2. Materials

2.1.2.1. Social-cognitive aptitude test (SCAT). Participants were asked to read brief character descriptions of each member of 10 different couples, and to judge whether or not each couple remained in their relationship for more than one year (e.g., Crocker, Thompson, McGraw, & Ingerman, 1987). The SCAT was purportedly a reliable measure of the ability to integrate information, and of intellectual and interpersonal competence.

2.1.2.2. Self-description task. For this task, participants were given 20 blank lines on which they were told to write statements to describe themselves. To index the use of relational self-aspects as self-affirmational resources, two judges blind to threat condition rated whether each descriptor referred to a significant other (e.g., "I am Jen's best friend", "I am my parents' second son") or not (e.g., "I am of average height", "I am a high school graduate"). Agreement was 91% and disagreements were resolved through discussion.

2.1.2.3. Manipulation checks. On 7-point scales, participants rated how satisfied they were with their SCAT performance (1 = *not at all*, 7 = *very*), and whether their performance was higher or lower than the average student (1 = *much lower*, 7 = *much higher*).

2.1.2.4. Demographics and suspicion. Participants completed demographic items, followed by two open-ended suspicion probes (i.e., "Did you find anything strange or unusual about the study's procedures?" and "What do you think the hypotheses of the study are?").

[1] The distribution of self-identified ethnicity of Study 1's sample was 3% African American, 32% Caucasian, 49% Asian, 6% Mexican/Latino, 7% other, and 3% missing. The distribution in Study 2's sample was 2% African American, 24% Caucasian, 58% Asian, 9% Mexican/Latino, 5% other, and 2% missing. The distribution in Study 3's sample was 1% African American, 18% Caucasian, 38% Asian, 2% Mexican/Latino, 4% other, and 39% missing.

2.1.3. Procedure

Upon participants' arrival to the main laboratory room, the experimenter explained that the purpose of the study was simply to get feedback on a variety of personality measures. Participants were told that after filling out the measures, they would provide feedback on each, as well as find out their scores on some of them. Participants were then escorted to computer cubicles. There the experimenter delivered the instructions for the SCAT. After participants completed the SCAT, the experimenter left to fetch their scores, which were allegedly being printed out down the hall.

In actuality, these scores were randomly assigned so that participants received either non-threatening or threatening scores. No-threat participants learned that they got 8 out of 10 correct, purportedly an above-average score indicating that they are mature and receptive, have superior ability in social and intellectual situations, and respond well to personal and cognitive challenges. Threat participants scored 3 out of 10, a below-average score signaling a lack of social sensitivity, intellectual immaturity, and difficulty processing information. After receiving their scores, participants were led back to the main laboratory room.

There, participants completed the self-description task and, to preserve the cover story, gave some feedback on it. The experimenter then pretended to have forgotten to give participants a feedback form for the SCAT, and quickly passed it out. This form included the manipulation checks. We had participants complete these checks after the self-description task to minimize the time lapsing between the threat manipulation and this task. Also, we wanted to prevent use of the manipulation checks as a defensive strategy (e.g., indicating little dissatisfaction with one's SCAT score might defuse its threat). Finally, participants completed the demographic items and suspicion probes, after which they were debriefed.

2.2. Results and discussion

Thirteen (9%) participants expressed some suspicion regarding our cover story or the SCAT. We retained these participants because the results were similar with and without them.[2]

2.2.1. Manipulation checks

Responses to the two manipulation checks (i.e., how satisfied participants were with their SCAT performance and whether their performance was higher or lower than the average student) were analyzed in separate 2×2 (Gender $\times$ Threat) analyses of variance (ANOVAs). First, as intended, threat participants were less satisfied ($M = 2.45$) with their SCAT scores than no-threat participants ($M = 5.85$), $F(1,145) = 210.99$, $p < .001$. The interaction for this satisfaction item was also significant, suggesting that women (threat, $M = 2.18$; no threat, $M = 6.09$) responded more extremely to this item than did men (threat, $M = 2.71$; no threat, $M = 6.09$), $F(1,145) = 4.67$, $p < .05$. However, pairwise comparisons confirmed that the threat effect was significant among both women, $F(1,145) = 157.14$, $p < .001$, and men, $F(1,145) = 68.62$, $p < .001$. Also, the second 2×2 ANOVA yielded only a threat effect, indicating that threat participants ($M = 1.81$) rated

[2] As in Study 1, participants expressing suspicion in subsequent studies were retained because analyses with and without them produced similar results.

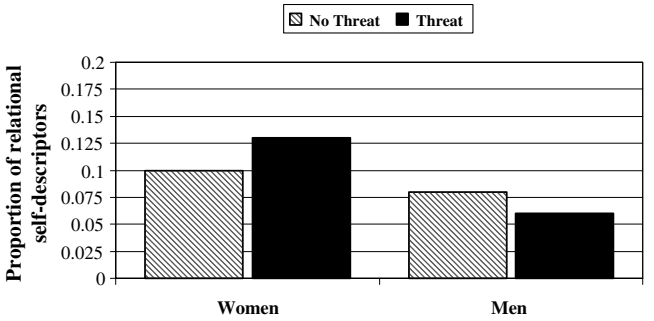

Fig. 1. Study 1: Raw proportion of relational self-descriptors as a function of gender and threat.

their scores as lower than no-threat participants ($M = 5.66$), $F(1,145) = 930.96$, $p < .001$ ($F < 1$ for the interaction).

2.2.2. Self-description task

The proportion of relational self-descriptors was computed and arc-sine transformed for each participant and then analyzed in a 2×2 (Gender × Threat) ANOVA.[3] This analysis yielded a gender effect, $F(1,145) = 10.98$, $p < .01$, which was qualified by the predicted interaction, $F(1,145) = 4.55$, $p < .05$ (see Fig. 1 for means). Supporting Study 1's main hypothesis, threatened women listed more relational self-aspects than non-threatened women, $F(1,145) = 4.19$, $p < .05$, whereas threat and no-threat men did not differ, $F(1,145) = 1.07$, *ns*. Viewed differently, women listed more relational self-descriptors than men overall, but this gender difference was mainly apparent in the threat condition, $F(1,145) = 14.94$, $p < .01$ (no-threat condition, $F < 1$). In sum, Study 1's results suggest that, when confronted with threatening feedback, women were especially apt to define themselves in terms of their relationships in the face of threatening feedback about the self, suggesting that relational self-aspects may serve as a self-affirmational resource among people for whom relational self-aspects are highly self-defining.

3. Study 2

In Study 1, we relied on a vast literature indicating gender differences in the self-definitional importance of relationships to test the hypothesis that relational self-aspects serve as self-affirmational resources primarily among individuals who view relationships as core to their identity. Extending our first study, Study 2 relied on the Relational-Interdependent Self-Construal scale (RISC; Cross et al., 2000), a direct measure of the importance of relationships to the self-concept. Also extending Study 1, Study 2 focused on assessing the esteem-repair value of relational self-affirmations. More specifically, we tested the hypothesis that people who view relationships as a core source of identity are not only more likely to spontaneously refer to relational self-aspects when threatened, as seen in Study 1, but are also more likely to enjoy esteem benefits from doing so, as reflected in more positive

[3] In Study 1, 10% of participants listed more than 20 descriptors (usually 21), and 1 participant listed fewer (i.e., 12). Such variations were accounted for by using proportions in all self-descriptor analyses.

self-evaluations. In addition, Study 2 included a condition in which we induced participants to affirm a relational self-aspect after experiencing a threat to test whether such induced relational self-affirmations are more esteem-repairing for high- relative to low-RISC individuals.

In the study, high- and low-RISC individuals were randomly assigned to one of three threat conditions in a 2×3 (RISC $\times$ Threat) between-subjects design. Across threat conditions, participants completed a threatening, difficult version of the Remote Associates Test (RAT; see below). Afterward, they all engaged in a writing task. In the *no-threat* condition, participants were told that the version of the RAT they took was invalid, thereby dispelling the threat of the difficult test, after which they engaged in a filler writing task. In the *threat* condition, participants were given threatening feedback, whereby they were told that the RAT is a well-validated measure of analytic ability, and then engaged in a filler writing task (the same one used in the *no-threat* condition). In the final threat condition, the *induced relational self-affirmation* condition, participants also received the threatening feedback but then were told to write about a valued relational self-aspect. To assess self-evaluations after the writing task, we had all participants complete an implicit measure of self-esteem. We chose an implicit measure because completing an explicit self-esteem measure can in and of itself serve as a self-affirmational resource (Steele, Spencer, & Lynch, 1993).

The *no-threat* and *threat* conditions were parallel to the threat condition of Study 1. However, whereas Study 1 focused on participants' spontaneous tendency to refer to relational self-aspects when threatened, Study 2 focused on the esteem-repair benefits of such spontaneous relational self-affirmations. Conceptually replicating and extending Study 1, we predicted that implicit self-esteem scores would be just as high among threatened high-RISCs as among non-threatened high-RISCs, reflecting the esteem benefits that follow from the spontaneous tendency for people who view relationships as highly self-defining to engage in relational self-affirmations when threatened. In other words, given that Study 1 showed that people for whom relational self-aspects are particularly self-defining will spontaneously affirm relational self-aspects in the face of threat, we expected high-RISCs to do so in Study 2's threat condition, even though they were not explicitly told to do so. Accordingly, they should exhibit just as high implicit self-esteem as their non-threatened counterparts. In contrast, threatened low-RISCs should exhibit lower self-esteem than non-threatened low-RISCs, reflecting the effectiveness of our threat manipulation.

In the *induced relational self-affirmation* condition, our main prediction was higher self-esteem scores among high-RISCs relative to low-RISCs, reflecting the greater self-affirmational benefit that being forced to write about a valued relational self-aspect should have for the former relative to the latter group of participants. We were also interested in the implicit self-esteem of high-RISCs in the *threat* versus *induced relational self-affirmation* conditions. Because we expected threatened high-RISCs to spontaneously affirm relational self-aspects, the possibility exists that these individuals would have just as high implicit self-esteem as high-RISCs who were induced to affirm a relational self-aspect. However, since high-RISCs in the *threat* condition may not do this in as uniformly a manner as high-RISCs in the *induced relational self-affirmation* condition, the other possibility is that high-RISCs in the latter condition would have even higher implicit self-esteem than high-RISCs in the former condition. Given both of these possibilities, we refrained from making an *a priori* prediction for this particular comparison.

3.1. Method

3.1.1. Participants

One hundred forty-six undergraduates (96 women, 50 men) at a large public university participated in small groups in partial fulfillment of course requirements or for $10.

3.1.2. Materials

3.1.2.1. Prescreening survey. Participants completed the Relational-Interdependent Self-Construal scale (RISC; Cross et al., 2000) as part of a larger prescreening survey administered to all students enrolled in psychology courses at the start of the semester. Sample RISC items are "My close relationships are an important reflection of who I am" and "My sense of pride comes from knowing who I have as close friends" (for an extensive discussion of the psychometric properties of the RISC scale, see Cross et al., 2000). We recruited respondents scoring in the top ($M = 6.39$, $n = 71$) and bottom ($M = 3.98$, $n = 75$) quartiles on this scale.

In prescreening, participants were also asked to list their five most important relationships. Then, for their fourth relationship, they were asked to list five attributes that characterize them when they are with the relationship partner (i.e., relational self-aspects), and rated the favorability of each attribute ($-3 =$ *very unfavorable*, $+3 =$ *very favorable*). These relational-self attributes were used in the *induced relational self-affirmation* condition (see below).

3.1.2.2. Baseline mood. The Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988), which was used to assess baseline mood, asked participants to rate how much they were feeling various affective states at the moment ($0 =$ *not at all*, $4 =$ *extremely*). Separate indices of positive ($\alpha = .84$) and negative ($\alpha = .83$) mood were computed.

3.1.2.3. Remote associates test (RAT). All participants took a difficult version of the RAT (as in, e.g., Koole, Smeets, van Knippenberg, & Dijksterhuis, 1999; Vohs & Heatherton, 2001). For this test, participants were given 12 sets of 3 words (e.g., elephant, lapse, vivid), and asked to indicate the word that ties each set of three words together (e.g., memory). Threat was manipulated through feedback that participants received subsequent to taking this difficult test (see below).

3.1.2.4. Writing task. As a filler writing exercise, *no-threat* and *threat* participants were asked to write about what they had eaten in the past 48 h (e.g., Cohen, Aronson, & Steele, 2000). In contrast, *induced relational self-affirmation* participants wrote about two events that illustrate how the first relational-self attribute (e.g., strong, calm, funny) they had listed in prescreening with regard to their fourth significant other (e.g., close friend, brother, mother, girlfriend) describes them when they are with this person. High- and low-RISCs in this condition rated this attribute very favorably ($M = +2.14$), and did not differ in this regard ($F < 1$). Past research has used similar writing tasks (usually about a cherished, personal value) to provide participants with a self-affirmational opportunity (e.g., Sherman & Cohen, 2002). We chose the fourth instead of first relationship because RISC differences may be minimized with regard to relationships of topmost importance (Cross & Morris, 2003).

3.1.2.5. Self-esteem. We measured self-evaluations with the name-letter task (Nuttin, 1985), an implicit measure of self-esteem. The logic of this task is that evaluations of the letters in one's own name reflect one's self-evaluation. Wide-ranging research indicates

that name-letter evaluations, like evaluations of any object associated with the self (e.g., birthday numbers), serve as a valid measure of self-evaluation (e.g., Greenwald & Banaji, 1995; Jones, Pelham, Mirenberg, & Hetts, 2002; Koole & Pelham, 2003; Pelham, Mirenberg, & Jones, 2002). For the task, participants rated the beauty of the 26 alphabet letters (1 = *extremely ugly*, 7 = *extremely beautiful*), each presented on a computer screen in a randomized order. We computed relative evaluation scores for each participant by subtracting the baseline evaluation of each letter (based on the ratings of participants' whose names did not include it) from the participant's rating of that letter (e.g., Kitayama & Karasawa, 1997). The mean relative evaluation score for the letters in each participant's name was then calculated. Positive scores indicate a relatively positive evaluation for one's own name letters, whereas negative scores indicate a negative evaluation.

3.1.2.6. Demographics and suspicion. Participants answered the same demographic items and suspicion probes used in Study 1.

3.1.3. Procedure

Participants were seated in computer carrels upon arrival, and told the study involved doing several unrelated tasks and getting some feedback on them. After participants completed the PANAS, the experimenter administered the RAT. When all had completed the RAT, the experimenter scored the tests and returned participants' answer sheets to them, along with a sheet on which normative statistics and an explanation of the RAT were printed. *No-threat* participants learned that the version of the RAT they took was invalid; thus, their performance on it was completely uninformative regarding their abilities (as in Koole et al., 1999). In contrast, *threat* and *induced relational self-affirmation* participants were presented with normative statistics indicating that the mean RAT score of a group of 687 fellow undergraduates was 8.0, and learned that the RAT was a well-validated measure of analytic ability, and that it predicts numerous life outcomes, including academic achievement and future earning potential (e.g., Vohs & Heatherton, 2001). After collecting the RAT materials, participants were told that the next task involved writing for 6 min. *No-threat* and *threat* participants did the food writing task, whereas *induced relational self-affirmation* participants did the relational-self writing task. Afterward, the experimenter collected participants' writing-task sheets and had participants complete the name-letter task, ostensibly an aesthetic preferences task. Participants then completed demographic items and the suspicion probes, after which they were debriefed.

3.2. Results and discussion

Participants ($n = 5$) who scored over 2.5 *SD*s above the mean RAT score ($M = 1.38$, which was well below the purported average of a large group of fellow undergraduates, as expected) were excluded. In addition, because the RAT is a language-based test, participants who indicated that English was not their first language, and that they began to speak English after the age of 12 ($n = 9$), were also excluded. These exclusions, coupled with past research using the same threat manipulation (e.g., Vohs & Heatherton, 2001), gave us confidence that poor performance on the RAT constituted a greater threat to our *threat* and *induced relational self-affirmation* participants than to our *no-threat* participants. Finally, four participants were excluded because they completed the name-letter task improperly, and one due to the outlier status of his name-letter score (over 2.5 *SD*s

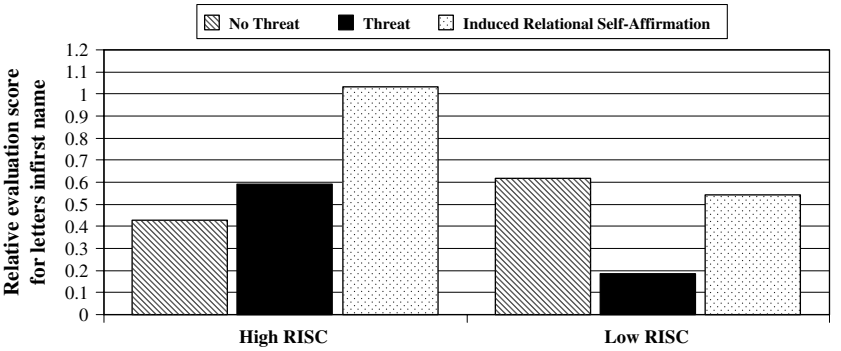

Fig. 2. Study 2: Relative evaluation scores for the letters in participants' first names as a function of RISC and threat condition. Higher scores reflect more positive self-evaluations.

below the mean). All analyses were conducted on the remaining sample of 127 participants (high RISC, $n = 62$; low RISC, $n = 65$).

3.2.1. Baseline mood

Separate 2×3 (RISC $\times$ Threat) ANOVAs for baseline positive and negative mood showed no RISC differences in negative mood ($F < 1$), but low-RISC participants ($M = 1.79$) reported higher positive mood relative to high-RISC participants ($M = 1.53$), $F(1, 121) = 4.13$, $p < .05$. However, there was no RISC $\times$ Threat interaction for positive mood ($F < 1$). Moreover, including positive mood as a covariate in the analyses below did not alter the results. Thus, we do not discuss mood any further.

3.2.2. Implicit self-esteem: Name-letter scores

We examined participants' relative evaluation scores for the letters in their first name in a 2×3 (RISC $\times$ Threat) ANOVA, which yielded a marginal RISC effect, $F(1, 121) = 2.70$, $p = .10$, indicating that high-RISCs tended to evaluate themselves more positively ($M = .68$) than low-RISCs ($M = .45$).[4] This effect was qualified by a marginally significant interaction, $F(2, 121) = 2.44$, $p = .09$ (see Fig. 2 for means). To test Study 2's a priori hypotheses, we conducted a series of planned, one-tailed comparisons.

The first set of comparisons focused on the *no-threat* and *threat* conditions, paralleling the threat conditions used in Study 1. As predicted, the self-evaluations of high-RISCs in the *threat* condition ($M = .59$) were as high as those of high-RISCs in the *no-threat* condition ($M = .43$), $F < 1$. This suggests that the tendency for people who view relationships as a core source of identity to spontaneously affirm relational self-aspects as a defensive response to threat, as documented in Study 1, has esteem-repair value. In contrast, name-letter scores were significantly lower among low-RISCs in the *threat* ($M = .19$) relative to *no-threat* ($M = .62$) condition, $F(1, 121) = 3.18$, $p < .05$, indicating that our threat manipulation had the intended negative effect on self-evaluation. Pairwise contrasts comparing high- and low-RISCs showed that the two groups did not differ in their self-eval-

[4] Scores were also calculated for participants' first initials, last names, and full names. Results for all scores patterned similarly, but were strongest for first names. Although Kitayama and Karasawa (1997) documented gender differences in first- versus last-name letter evaluations, their research involved Japanese respondents for whom first and last names may carry culturally-bound meanings not necessarily shared by our participants.

uations in the *no-threat* condition, $F < 1$, but high-RISCs had marginally significantly higher self-esteem scores than low-RISCs in the *threat* condition, $F(1, 121) = 2.34$, $p = .06$.

Turning to the *induced relational self-affirmation* condition, high-RISCs evaluated themselves significantly more positively than low-RISCs, $F(1, 121) = 3.87$, $p < .05$. Thus, as predicted, being induced to write about a relational self-aspect after a threat experience held more self-affirmational value for the former group of individuals. Indeed, high-RISCs in the *induced* condition, who actually experienced a threat, exhibited higher name-letter scores than *no-threat* high-RISCs, for whom threat was dispelled, $F(1, 121) = 6.52$, $p < .01$. This suggests that self-esteem repair efforts may at times "overcompensate," enhancing self-evaluations above baseline levels. Consistent with this, Hinkley and Andersen (1996) found that participants evaluated themselves more positively after they were reminded of their negative self-aspects, which presumably posed a threat, relative to when they were reminded of positive self-aspects.

Finally, high-RISCs in the *induced* condition exhibited marginally significantly higher name-letter scores than high-RISCs in the *threat* condition, $F(1, 121) = 2.70$, $p = .10$ (two-tailed given the absence of a priori predictions for this threat vs. induced comparison), suggesting that being explicitly directed to write about a relational self-aspect in the face of threat boosted self-worth somewhat higher relative to when high-RISCs were left to their own spontaneous self-affirmational devices. This makes sense in that the *induced* condition made sure all high-RISCs affirmed a relational self-aspect, whereas in the *threat* condition, high-RISCs in the present study may not have done so as uniformly as *induced* high-RISCs did (although Study 1 clearly suggests that, on average, high-RISCs will spontaneously affirm relational self-aspects in response to threat). Still, the lack of a strong difference between the *threat* and *induced* conditions is consistent with our spontaneity argument; that is, high-RISCs in the *induced* condition were directed to do what high-RISCs in the *threat* condition apparently did on their own in response to threatening feedback about the self.

Interestingly, although the self-evaluations of low-RISCs in the *induced* condition were lower than those in the *no-threat* condition, this difference was not significant ($F < 1$), suggesting that being induced to write about a relational self-aspect may have had some esteem benefits even for low-RISC individuals. This is not entirely surprising given the favorability of the relational self-aspect about which all participants (high- and low-RISC) in the *induced* condition wrote. However, there was also no significant difference between low-RISCs' self-evaluations in the *induced* relative to *threat* condition, $F(1, 121) = 2.08$, $p = .16$ (two-tailed), suggesting that any esteem-repair value of induced relational self-affirmations for low-RISC participants was limited, in line with our predictions.

Overall, Study 2's findings conceptually replicated and extended those of Study 1. Specifically, the results in the *no-threat* and *threat* conditions suggest that not only do people who view relational self-aspects as core identity elements tend to spontaneously refer to these self-aspects in response to threatening feedback, as seen in Study 1, but they also appear to enjoy self-esteem benefits from doing so. High-RISCs in the *threat* condition exhibited just as positive self-evaluations as high-RISCs who were not threatened. A reader might wonder how high-RISCs in the *threat* condition could have engaged in spontaneous self-affirmations given that they were directed to work on the food writing task immediately after receiving the threatening feedback. Considerable research indicates that the activation of relational aspects of the self may occur automatically (for a review, see Chen et al., 2006), suggesting that an individual's relational selves can be activated even when he or she is engaged in an unrelated task.

On a different note, one might wonder why low-RISCs in the *threat* condition did not engage in some kind of spontaneous self-affirmation strategy, as high-RISCs in this condition apparently did. We speculate that it may have been more difficult to capture the effects of any spontaneous self-affirmations occurring among low-RISCs as these participants were grouped together solely on the basis of viewing relationships as *not* important to their self-concepts; in other words, we do not know what *is* important and therefore self-affirming to these individuals. In contrast, all high-RISC participants were known to view relationships as self-defining and therefore self-affirming. Future research is needed to explore this possibility. Finally, Study 2's *induced relational self-affirmation* condition showed that being induced to affirm a relational self-aspect after receiving threatening feedback had greater esteem benefits for high- than for low-RISCs, consistent with the self-affirmation prediction that affirmations of a particular aspect of the self has self-esteem value only for those who deem the self-aspect important.

4. Study 3

In Study 2, we interpreted the finding that the implicit self-esteem of high-RISCs in the threat condition was comparable to the self-esteem of high-RISCs who were not threatened as reflecting the spontaneous defensive tendency for people who view relationships as highly self-defining to affirm relational aspects of themselves in the face of threat, as shown in Study 1. However, a critic might argue that our threat manipulation may not have been effective among high-RISC individuals, therefore accounting for the similar self-esteem levels seen among threat and no-threat high-RISCs. Study 2 is unable to address this criticism because it did not include manipulation checks in light of past research that has used the same RAT threat manipulation (e.g., Vohs & Heatherton, 2001). Therefore, the first goal of Study 3 was to demonstrate the effectiveness of the RAT threat manipulation among both high- and low-RISC individuals.

The second goal was to extend the generality of the results of Study 1 through the use of a "diary entry" rather than explicit self-description task to capture the spontaneous tendency to affirm relational self-aspects in response to threatening feedback. Analogous to Study 1, this follow-up study used a 2×2 (RISC $\times$ Threat) between-subjects design, with the key hypothesis that high-RISC individuals would be more likely to spontaneously refer to relationship-related events or experiences in their diary entries when threatened, whereas threat should have no such effect among low-RISCs.

4.1. Participants

Ninety-eight undergraduates (55 women, 43 men) at a large public university participated in small groups in partial fulfillment of course requirements or for $10.

4.2. Materials

4.2.1. Prescreening survey

As in Study 2, participants completed the RISC scale in a prescreening survey, and were recruited if they scored in the top ($M = 6.45$, $n = 45$) or bottom ($M = 4.26$, $n = 53$) quartiles on this scale.

4.2.2. Remote associates test (RAT)

This was the same test as the one used in the threat and induced relational self-affirmation conditions of Study 2. As in Study 2, threat was manipulated through feedback that participants received subsequent to taking this difficult test (see below).

4.2.3. Diary entry task

For this task, participants spent 5 min writing about something they did or something that happened to them in the past 24 h. They were presented with 16 blank lines and told to be as specific and descriptive as they could, including feelings or thoughts that they had had. Using a 4-point (0–3) scale, two independent coders, blind to participants' RISC and threat condition, rated each participant's diary entry for references to significant others. A "0" was used when there were no such references (e.g., entry about studying), and a "3" if the entry focused entirely on significant other(s) (e.g., entry about a romantic partner). Judges' ratings were highly correlated for 33% of the sample ($r = .97$); thus, one judge rated the remainder and her ratings were analyzed.

4.2.4. Manipulation checks

Participants rated how positive or negative the feedback regarding their RAT performance was (1 = *very negative*, 7 = *very positive*), and how unhappy or happy the average person would be to receive the feedback (1 = *very unhappy*, 7 = *very happy*).

4.2.5. Demographics and suspicion

Participants answered the same demographic items and suspicion probes used in the previous studies.

4.3. Procedure

Upon arrival, participants were seated in carrels and told the study involved filling out several unrelated measures and tasks, and getting feedback on some of them. After participants completed the difficult version of the RAT, the experimenter scored the tests and returned participants' answer sheets to them, along with a sheet containing normative statistics and an explanation of the RAT. Threat participants were shown the same information used in the threat condition of Study 2. Thus, they learned that the RAT was a well-validated measure of analytic ability and so forth. In contrast, no-threat participants learned that the version of the RAT they took was invalid, which dispelled the threat of the difficult test, as in Study 2's no-threat condition. After collecting the RAT materials, the experimenter explained the diary entry task. After participants completed this task, the remaining procedures were identical to those used in Study 1.

4.4. Results and discussion

Two participants were excluded (1%) because they scored over 2.5 *SD*s above the mean RAT score ($M = 1.14$, which was well below the purported average of a large group of fellow undergraduates, once again as expected). Once more, because the RAT is a language-based test, we excluded five participants (6%) who indicated that English was not their first language, and that they began to speak English after the age of 12. All analyses were conducted on the remaining sample ($n = 91$).

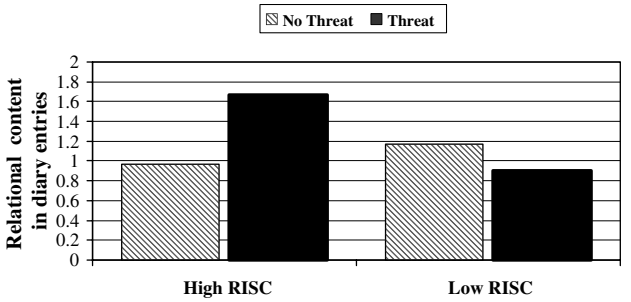

Fig. 3. Study 3: Average rating of relational content in diary entries as a function of RISC and threat condition. Higher scores reflect greater relational content.

4.4.1. Manipulation checks

Separate 2×2 (RISC $\times$ Threat) ANOVAs on the two manipulation checks showed that, as intended, threat participants ($M = 1.91$) viewed the test feedback as marginally more negative than no-threat participants ($M = 2.49$), $F(1, 86) = 3.61$, $p = .06$, and judged the average person as marginally significantly more unhappy about the feedback ($M = 1.98$) than did their no-threat counterparts ($M = 2.45$), $F(1, 86) = 3.33$, $p = .07$.[5] Crucially, neither interaction was significant (Fs < 1), indicating that our threat manipulation, the same one used in Study 2 and past research (e.g., Vohs & Heatherton, 2001), was similarly effective among both high- and low-RISC individuals.

4.4.2. Relational content in diary entries

We subjected the index of relational content in participants' diary entries to a 2×2 (RISC $\times$ Threat) ANOVA (see Fig. 3 for means). This analysis yielded only the predicted interaction, $F(1, 87) = 4.97$, $p < .05$. Pairwise comparisons showed that the diary entries of threatened, high-RISC participants contained significantly more relational content than the entries of their high-RISC counterparts in the no-threat condition, $F(1, 87) = 4.03$, $p < .05$, whereas the content of low-RISCs' diary entries did not differ as a function of threat condition ($F = 1.24$, *ns*). Viewed differently, threatened high-RISCs were significantly more likely to focus on their relationships in their diary entries relative to threatened low-RISCs, $F(1, 87) = 5.35$, $p < .05$, whereas no such RISC difference was found in the no-threat condition ($F < 1$).

In sum, Study 3 bolstered our interpretation of Study 2's results by ruling out the notion that the threat manipulation used in that study was differentially effective among high- versus low-RISC individuals. Furthermore, by using a diary entry rather than explicit self-description task, the results replicated and extended the generality of the finding in Study 1 that people who view relationships as core to their self-definition are particularly apt to spontaneously refer to relational aspects of themselves when faced with a threat to the self.

4.5. General discussion

Self-affirmation theory maintains that when faced with a threat to the self, people engage in strategic maneuvers aimed at restoring their self-worth. In particular, they

[5] One participant had missing data on the manipulation-check items and thus $n = 90$ for these analyses.

may affirm a self-aspect unrelated to the domain of threat. To the extent that this unrelated self-aspect holds self-definitional importance, the blow to self-esteem brought on by the threat is repaired. The bulk of self-affirmation research has focused on individual and, more recently, collective aspects of the self. Noting the relatively small number of self-affirmation studies involving relationships, Sherman and Cohen (2006) suggested the need for more research in this direction. Existing work in this vein provides largely indirect evidence for the self-affirmational role of relational selves, which refer to aspects of the self that characterize who one is in relation to significant others. In light of growing appreciation of the role that relational selves play in a wide range of psychological processes and outcomes (e.g., Andersen & Chen, 2002; Baldwin, 1997; Brewer & Gardner, 1996; Chen et al., 2006), the present research aimed to directly examine relational selves as self-affirmational resources.

In two studies, we found that people who view relational self-aspects as a core source of identity (i.e., women and high-RISCs) were especially likely to spontaneously refer to significant others in describing themselves and their lives in response to threatening feedback (Studies 1 and 3). The same pattern of results emerged across these two studies, despite the use of different bases for identifying people who view relationships as high versus low in self-definitional importance (i.e., gender and RISC), as well as different threat manipulations and methods of capturing the use of relational self-aspects as self-affirmational resources. It is also worth noting that the self-affirmation measures used in these studies were open-ended, allowing participants to focus on any aspect of themselves and their lives, thus bolstering the notion that the use of relational selves as self-affirmational resources may indeed often be spontaneous. This marks an important contribution to a literature wherein participants have typically been directed toward a specific self-affirmational opportunity, rather than left to their own devices, leaving questions about people's spontaneous self-affirmation tendencies under-explored (see also Creswell et al., 2007).

Study 2 focused on the esteem-repair value of spontaneous and induced relational self-affirmations in the face of threat. As predicted, threatened high-RISCs evaluated themselves just as positively as non-threatened high-RISCs, implying that their spontaneous tendency to affirm relational self-aspects when confronted with threat, documented in Studies 1 and 3, has esteem-repair value. Moreover, Study 2 showed that when participants were induced to affirm a relational self-aspect subsequent to receiving threatening feedback, high-RISCs enjoyed more self-esteem benefits than their low-RISC counterparts, in line with the prediction that self-affirmations are only effective to the extent that the self-aspect being affirmed is a valued, core element of one's identity.

One limitation of the present research is that only one study assessed the esteem-repair value of relational self-affirmations. Therefore it will be important to replicate Study 2's finding that such affirmations, whether spontaneous or induced, are especially esteem-repairing for individuals whose identity is grounded in relational self-aspects. Future research might also include other indices of the esteem benefits of relational self-affirmations—for example, the degree to which participants accept (vs. derogate) threatening feedback after affirming a relational self-aspect.

On another note, to provide the strongest test of the self-affirmation prediction that only important, core aspects of the self are affirming, we recruited women and men in Study 1, and extreme scorers on the RISC scale in the latter two studies. However, it is likely that all people possess at least a few relationships that are highly self-defining, even though affirming an aspect of the self associated with these relationships may not be a

chronic defensive strategy for all. This implies that if people's topmost important relationships were somehow made salient on a temporary basis, even those who do not view relationships as core to their self-definition on a chronic basis (e.g., men, low-RISCs) may turn to relational self-aspects as a self-affirmational resource when confronted with a threat to the self. This possibility fits well with growing evidence suggesting that, notwithstanding individual differences in the importance of relationships to the self-concept, relational self-aspects may influence a broad range of self-relevant processes and phenomena across individuals (for a review, see Chen et al., 2006).

To conclude, extending a small body of work on relationships and self-affirmation processes, the present studies demonstrated that people who view relational self-aspects as central to their identity may affirm these self-elements as a defensive response to threat. Thus, the selves we are in our relationships with our significant others may have self-affirmational value. More broadly, the current findings expand the range of processes on which relational selves exert an influence, dovetailing with both the growing appreciation of relational selves in recent years, and with James's early insights on the fundamentally relational nature of the self.

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