

A product's connection to self-threat domain determines self-control impairment consequences of within-domain compensatory consumption

Nimish Rustagi

Press Information Bureau, Government of India, New Delhi, India, and

L. J. Shrum

Department of Marketing, HEC Paris, Jouy-en-Josas, France

Abstract

Purpose – Studies have shown that within-domain compensatory consumption can successfully repair the damaged self, but other research indicates that it can undermine self-control because such consumption causes self-threat rumination that impairs self-regulatory resources. This paper aims to identify a boundary condition that reconciles and explains these contradictory findings.

Design/methodology/approach – The authors conducted three experiments to show that within-domain compensatory consumption undermines self-control, but only in some situations. They test a boundary condition (i.e. type of connections between within-domain products and self-threat domain) for the effects of such consumption on self-threat rumination and self-control.

Findings – This paper demonstrates that within-domain (but not across-domain) compensatory consumption induces rumination and reduces subsequent self-control, but only when the product's connection to the self-threat domain is made explicit through brand names or slogans. When the connection is merely implicit, rumination and self-control deficits are not observed.

Practical implications – Consumers may seek certain products to bolster threatened aspects of their self-concept. Marketing tactics that explicitly highlight connections to such self-aspects can lower a consumer's self-control resulting in stronger purchase intent, while at the same time hindering the possibility of self-concept repair. Managers need to be wary of ethical concerns.

Originality/value – This research qualifies the existing findings by presenting "type of product connection" as a key determinant of within-domain compensatory consumption's impact on self-control. Researchers need to be conscious of the type of products (explicitly vs implicitly connected to the self-threat domain) they use in compensatory consumption studies, because this may influence their findings.

Keywords Self-identity, Consumer behavior, Materialism, Compensatory consumption, Self-threats

Paper type Research paper

1. Introduction

People often experience threats to their self-identity: they do not perform as well as expected on something at which they consider themselves to be competent, they do not experience the level of social acceptance that they expect, or they are not able to exert sufficient control over people or situations. These self-threats create self-discrepancies (self-deficits), which are unpleasant, aversive states that people are highly motivated to rectify. One way people attempt to repair these self-deficits is through consumption of products and services that are symbolic of success or mastery on the threatened self-domain (Mandel *et al.*, 2017). For example, people who experience threats to their intelligence may seek out products that are associated with intelligence, which may serve to repair, however

temporarily, the self-deficit of intelligence (Gao *et al.*, 2009; Rustagi and Shrum, 2019).

Although such compensatory consumption can restore the threatened self-concept in certain circumstances, it may have unintended consequences. For example, in a series of experiments, Lisjak *et al.* (2015) showed that when compensatory consumption involved products that were connected to the self-threat domain (e.g. subscription to *Scientific American* following an intelligence threat), participants ruminated more about the self-threat compared to those who compensated with products related to a different self-domain (competence), and this rumination impaired self-regulation in subsequent self-control tasks.

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In the current research, we propose a slightly different process. We propose that it is not within-domain compensation *per se* that cues ruminative thoughts and subsequent self-control deficits, but whether contextual factors such as brand names, advertising and product slogans explicitly connect the compensatory product with the self-threat. Research on within-domain compensatory consumption typically assumes (and confirms with pre-tests) that there is an implicit connection between the self-threat and the product symbolism. For example, dictionaries are implicitly related to intelligence, and status products are implicitly related to power. However, connections can also be made explicit (e.g. compensating for a threat to one's competence with the choice of a book about ways to become instantly smarter; Lisjak *et al.*, 2015). Across three studies, we show that within-domain compensatory consumption reduces self-control and increases rumination, but only when the connection between the self-threat and the product's symbolic linkage to the self-threat domain is made explicit.

2. Self-threats and compensatory consumption

One of the strongest human motivations is to maintain a positive and stable self-concept. However, people routinely experience threats to core aspects of their self-concept, such as threats to their self-esteem, feelings of power and belongingness. Such threats can create self-discrepancies, or incongruities between one's current self and one's ideal self (Higgins, 1987; Mandel *et al.*, 2017). Self-discrepancies are aversive states, and consequently, people are highly motivated to restore the aspect of their self-concept that is threatened.

Although there are many ways to restore self-discrepancies, one way is through consumption. For example, rooted in the concept of symbolic self-completion (Wicklund and Gollwitzer, 1982), people may restore a damaged self-identity by consuming products or services that are symbolic of mastery or competence on particular aspects of the self-concept, a process known as *compensatory consumption* (Rucker and Galinsky, 2013) [1]. In particular, threatened individuals may consume products that are directly linked to the self-domain that is threatened, and thus, an individual whose feelings of personal power are threatened may purchase or display products that are linked to power and status, such as luxury goods (Rucker and Galinsky, 2008). This process is referred to as *within-domain* compensatory consumption because the consumption that signals success is in the domain of the threat. Alternatively, rooted in the concepts of fluid compensation and self-affirmation theory (Steele, 1988), threatened individuals may attempt to overcome a self-discrepancy by consuming products or services that signal success on a self-domain unrelated to the threat. Thus, consumers whose feelings of power are threatened might donate money to a charity to boost their feelings of belongingness and moral standing. This process is called *across-domain* compensatory consumption.

Although both types of compensatory consumption can successfully restore the threatened self-concept (Gao *et al.*, 2009; Sivanathan and Pettit, 2010), within-domain compensatory consumption can also have some unintended negative consequences. In particular, within-domain compensatory consumption may undermine self-control. In a series of studies, Lisjak *et al.* (2015) showed that compared to across-domain

compensation, threatened participants who compensated with a within-domain product performed more poorly on a variety of self-control tasks. They further showed that this effect was mediated by rumination (repeatedly thinking or dwelling on something; Lisjak *et al.*, 2015; Martin and Tesser, 1996). Specifically, they showed that within-domain compensatory consumption following self-threat resulted in increased rumination about the self-threat, which in turn reduced self-control on subsequent tasks. Presumably, within-domain compensation served to keep the previous threat or failure active in memory, cuing ruminative thoughts and threat-related ruminative thoughts in turn caused individuals' self-control resources to be used for suppressing their unwanted thoughts regarding the threat (Gross, 1998). In contrast, across-domain compensatory consumption of products that signal success on aspects of the self that were unrelated to the threat did not trigger rumination or reduce self-control.

3. Implicit vs explicit self- and product connections

Recent research has distinguished between within-domain compensatory products based on whether the products were implicitly or explicitly associated with the self-threat domain (Rustagi and Shrum, 2019). Research on compensatory reactions to power threats often use luxury products as stimuli because they are associated with status and power (Lee and Shrum, 2012; Rucker and Galinsky, 2008). Similarly, research on reactions to intelligence threats has used dictionary sets because they are symbolically related to intelligence (Kim and Rucker, 2012). These are examples of within-domain products that are implicitly connected to the threatened self-domain. Here, the inherent symbolic links are evidenced by the fact that these products are not presented with any explicit information that connects them to the threatened self-domain. However, the connections between a product and a self-domain can also be made explicit, particularly through marketing tactics. Examples include compensating for intelligence threats with a pen marketed as a "Brain Pen" (Kim and Gal, 2014) or compensating for competence threats with a game with the slogan "A Skillful Board Game" (Lisjak *et al.*, 2015).

In this research, we test the proposition that the findings of Lisjak *et al.* (2015) showing that within-domain compensatory consumption induces rumination about the threat, which subsequently impedes self-regulation, may not necessarily be a function of within-domain compensatory consumption, but instead may be driven by whether the compensatory products are explicitly linked to the self-threat. In testing their hypotheses, the within-domain compensatory products used by Lisjak *et al.* carried explicit connections to the self-threat. For example, participants who were threatened on the domain of competence were given the opportunity to compensate with products such as *Genius: Simple Ways to Become Instantly Smarter*, and people who were threatened on the domain of sociability were asked to write about a time in which they had played a "Social Board Game" that made them feel connected to their friends and happy with their relationships. Thus, it may be that it is the explicit connection, rather than solely the within-domain compensation, that induces rumination, which

in turn reduces self-control on subsequent tasks. Thus, formally, we hypothesize:

- H1. Compensating with explicitly connected products will impair self-control but compensating with implicitly connected or across-domain products will not.
- H2. Threatened individuals will ruminate about the self-threat when compensating with products that are explicitly connected to the self-threat domain but not ruminate when compensating with products implicitly connected to the domain of threat or with across-domain products.
- H3. The product connection-driven differential effects of compensation on self-control are mediated by self-threat rumination.

We tested our hypotheses in three studies. Studies 1 and 2 tested the self-control impairment hypothesis and Study 3 tested the moderated mediation hypothesis. In all experiments, we analyzed the data only after all measures had been collected. We excluded participants based on *a priori* rules (described within each study) that were applied before any data analyses. Following typical procedures in self-threat research (e.g. Gao *et al.*, 2009; Lisjak *et al.*, 2015), we measured mood as a covariate in all three studies to rule out mood as an alternative explanation. However, adding mood as a covariate did not materially change the results and thus we report the results of all analyses without covariates. All participants provided informed consent and were debriefed following the study. The three experiments were conducted in a university class, and thus sample size was determined by class size and attendance that day. The raw data, stimuli and the measures used are included in the Supplementary Material which is available at <https://osf.io/3w7x8/>.

4. Study 1

Study 1 tested the hypothesis that compensating within-domain with explicitly connected products undermines subsequent self-control on tasks demanding it, whereas compensating within-domain with implicitly connected products and compensating with across-domain products do not. To do so, we first threatened participants on a self-identity domain and then manipulated whether they were given the opportunity to compensate via implicit or explicit or across-domain product connections. We then measured subsequent self-control by assessing the performance of the participants on a task that required an exercise of self-control. We expected that those compensating with explicitly connected products would perform worse on the task compared to participants compensating with implicitly connected or across-domain products, indicating that within-domain compensation with explicitly connected products impairs an individual's ability to exercise self-control that is required for subsequent task performance.

4.1 Method

4.1.1 Participants and design

Seventy-three undergraduates from an Indian university participated in the study for a chance to win a gift voucher worth Rs. 500 (US\$7.00). Participants were randomly assigned

to conditions in a single-factor, three-level (product connection: explicit vs implicit vs across) between-subjects design. The explicitly and implicitly connected products were within-domain products that symbolized the intelligence domain, whereas the across-domain products symbolized the excitement domain (Gao *et al.*, 2009).

4.1.2 Procedure

First, all participants were threatened on the domain of intelligence by providing them with negative feedback on an ostensible intelligence test. The participants were administered two different tasks that were described as measures of natural intelligence. The first task was a visual perception task that required participants to estimate the number of dots in the different dot patterns that were shown on the computer screen for 2 s each (adapted from Sivanathan and Pettit, 2010). The second task was a mental reasoning test comprising eight questions that purportedly tested their reasoning capabilities. For each of these questions, the participants were provided a limited time to respond. Following the two tasks, all participants were given fictitious negative feedback indicating that their relative performance placed them in the bottom 20% of all participants who had taken the online test to date.

Next, we manipulated product connection using a choice task adapted from Gao *et al.* (2009). Framed as a prize selection study, the participants were asked for their help in identifying the prizes that we could give to participants in our future studies. Through this task, we gave participants an opportunity to compensate with either explicitly or implicitly connected within-domain products or with across-domain products symbolic of excitement, which is a key self-identity domain unrelated to the threatened domain of intelligence.

Participants in the explicit and implicit product connection conditions were presented with three products, adapted from Gao *et al.* (2009), that naturally symbolize intelligence: *Encyclopedia Britannica*, a *Scrabble* board game, and a subscription to *National Geographic* magazine. In the explicit product connection condition, each of the products was presented along with a slogan and a brief description that made the product's connection with intelligence explicit (e.g. the *Scrabble* board game had the slogan "The Smartest Mind Game"), whereas in the implicit product connection condition, these same products were presented with slogans and brief descriptions that were unrelated to the domain of intelligence (e.g. the *Scrabble* board game had the slogan "A Game You Can Play Anytime;" see Supplementary Material). Participants in the across-domain product condition were presented with three products (river rafting gift voucher, a subscription to *Vogue* magazine, a subscription to *The Outdoor Journal* magazine) with slogans and product descriptions depicting their exciting nature (adapted from Gao *et al.*, 2009). In each condition, participants were asked to select the product they preferred the most, followed by a selection of their second most preferred choice.

Participants then completed measures of mood on a three-item scale (Cutright *et al.*, 2011; $\alpha = 0.74$). Next, participants completed a task intended to measure their self-control, adapted from Lisjak *et al.* (2015). In an exercise ostensibly to assess different font styles and their readability, participants were given a few paragraphs from an article "Language and Thought" (Comrie, 2022) and were asked to underline all the

words in the text that contained the letter *e* exactly two times (qualifying words). The paragraphs were printed in a small and atypical font (Gill Sans MT Condensed, font 10, single space), and they were given six minutes to complete the task. The task measures self-control because, even though the task is easy, it requires concentration and effort, and thus requires participants to override the impulse to quit. A pretest ($n = 30$) revealed that this task was considered effortful and demanded self-control (see Supplementary Material).

4.1.3 Manipulation checks

We conducted two separate manipulation check studies to ensure that the threat and product connection manipulations had the intended effects. The first manipulation check study tested the intelligence threat manipulations using a procedure and dependent measures adapted from Lisjak *et al.* (2015; Experiment 3A). One hundred fifty-eight members of the MTurk online panel participated in the study and were randomly assigned to conditions in a one-factor (threat: yes vs no) between-subjects design. Participants were either threatened on intelligence through a negative false feedback task (Study 1), threatened on intelligence through a recall task of an intelligence failure (Study 2 and Study 3), or not threatened (writing about their daily routine), after which they reported the positive and negative emotions they felt during the threat manipulations: uncomfortable, bothered, tense, uneasy, comfortable, calm, relaxed and at ease (1 = not at all and 9 = very much). A factor analysis of the emotions yielded two factors: the four negative emotions ($\alpha = 0.97$) and the four positive emotions ($\alpha = 0.98$).

Planned comparisons contrasting the negative intelligence feedback condition with the control (no-threat) condition indicated that those threatened on intelligence felt more negative ($M = 5.92$, $SE = 0.35$) than those in the no-threat recall condition ($M = 4.55$, $SE = 0.40$; $t(155) = 2.54$, $p = 0.012$) and less positive ($M = 5.93$, $SE = 0.34$) than those in the no-threat condition ($M = 7.55$, $SE = 0.38$; $t(155) = 3.17$, $p = 0.002$). Similar results were observed contrasting the intelligence failure recall condition with the control condition. Threatened participants felt more negative ($M = 6.04$, $SE = 0.29$) than those in the no-threat recall condition ($M = 4.55$, $SE = 0.40$; $t(155) = 3.00$, $p = 0.003$) and less positive ($M = 6.66$, $SE = 0.27$) than those in the no-threat condition ($M = 7.55$, $SE = 0.38$; $t(155) = 1.88$, $p = 0.06$). The results suggest that the manipulation was successful.

The second manipulation check study tested the product connection manipulations. Fifty-nine students from an Indian university participated in the study in a one-factor (self-identity domain: intelligence vs excitement vs benevolence) within-subjects design. Participants were presented with the nine products: three products used for the within-domain (intelligence–Studies 1, 2 and 3) and six products used for across-domain (excitement–Studies 1 and 2, and benevolence–Study 3) conditions: intelligence (*Scrabble* board game, *Encyclopedia Britannica*, *National Geographic*), excitement (river rafting, *Vogue* magazine, *The Outdoor Journal* magazine and benevolence (a pack of *UNICEF* cards, a box of candles and jute bags—the products were described as supporting charitable causes). Participants were asked to rate the extent to which a person who possesses or owns the product is intelligent,

exciting and benevolent (1 = not at all, 9 = very much). Planned contrasts indicated that the intelligence-related products were perceived to signal intelligence ($M = 7.15$) more than the excitement-related products ($M = 5.18$; $t(58) = 9.19$, $p < 0.001$) and benevolence-related products ($M = 6.25$; $t(58) = 3.51$, $p < 0.001$). Further, the excitement-related products were perceived to signal excitement ($M = 7.71$) more than the intelligence-related products ($M = 6.01$; $t(58) = 10.22$, $p < 0.001$). Similarly, the benevolence-related products were perceived to signal benevolence ($M = 8.05$) more than the intelligence-related products ($M = 4.04$; $t(58) = 15.66$, $p < 0.001$). These results suggest that the manipulation was successful.

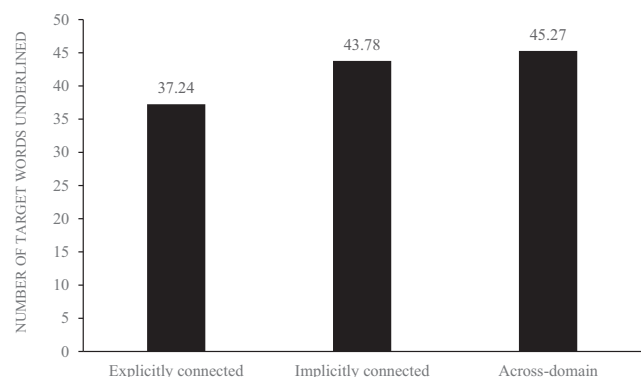
4.2 Results and discussion

4.2.1 Hypothesis testing

We expected that those compensating within-domain [2] with explicitly connected products would exhibit less self-control, and thus would underline fewer qualifying words in the word identification task, compared to those compensating with implicitly connected or across-domain products. A one-way ANOVA confirmed predictions (Figure 1). Product connection had a significant effect on the task performance ($F(2, 70) = 3.99$, $p = 0.023$). Planned contrasts using SPSS one way ANOVA revealed that threatened participants who compensated via explicitly connected products underlined fewer qualifying words ($M = 37.24$, $SE = 2.14$) than did those who compensated with implicitly connected ($M = 43.78$, $SE = 2.10$; $p = 0.033$) or across-domain connected products ($M = 45.27$, $SE = 2.14$; $p = 0.010$), and the latter two conditions did not differ ($p = 0.62$). The result remained significant when mood was included as a control variable.

The results of Study 1 suggest that within-domain compensatory compensation impairs self-control, but only when the compensatory products are explicitly connected to the threat domain. We found no difference in self-control between participants who compensated with implicitly connected or across-domain products. Our findings suggest that the type of product connection (explicit vs. implicit) determines whether

Figure 1 Number of target words underlined as a function of product connection (Study 1)



Note: Study 1: No. of target words underlined

Source: Authors' own work

within-domain compensatory consumption undermines self-control.

5. Study 2

The purpose of Study 2 was to demonstrate external validity through different methods and measures. We adopted an indirect approach to test our hypotheses by applying extant research findings that link self-control resource depletion to construal level (Trope and Liberman, 2003; Wan and Agrawal, 2011). Exerting self-control heightens the focus on lower-level attributes in a situation that involves both lower- and higher-level attributes. Therefore, we posit that because compensating with explicitly connected products depletes an individual's self-control resources, compensating with such products should lead to lower construal levels compared to compensating with implicitly connected products or across-domain products.

5.1 Method

5.1.1 Participants and design

One hundred one engineering undergraduates from an Indian university participated in the study for a chance to win Amazon gift vouchers worth Rs. 500 (US\$7.00). Participants were randomly assigned to conditions in a single-factor, three-level (product connection: explicit vs implicit vs across), between-subjects design. As in Study 1, within-domain self-threat products were related to intelligence and across-domain products were related to excitement.

5.1.2 Procedure

First, in a study ostensibly about understanding the different ways in which people recount past experiences, all participants were threatened on intelligence by having them write about a time in their academic life when they had questioned their own intelligence or intellectual capabilities (Lisjak *et al.*, 2015). We then manipulated product connection (explicit vs implicit vs across) and compensation using the same procedures as Study 1.

Next, participants responded to the Behavior Identification Form (BIF; Vallacher and Wegner, 1989), a measure that assesses construal level (Wan and Agrawal, 2011). The BIF was adapted for Indian participants (see Supplementary Material). Each question in the BIF consists of a behavior (e.g. locking a door), followed by two options to describe the behavior, one of which indicates a lower construal level (e.g. putting key in the lock) and the other indicates a higher construal level (e.g. securing the house). For each behavior, participants were asked to choose the option that better described the behavior for them. We computed a measure of construal level by summing across scores of the 24 items (coded 1 = higher construal level, 0 = lower; thus, higher scores indicated higher construal levels). Finally, participants completed the same three-item mood measure used in Study 1 ($\alpha = 0.78$), provided demographic information, and were asked about their perceptions of the purpose of the study. No one correctly guessed the purpose.

5.2 Results and discussion

5.2.1 Exclusion criteria

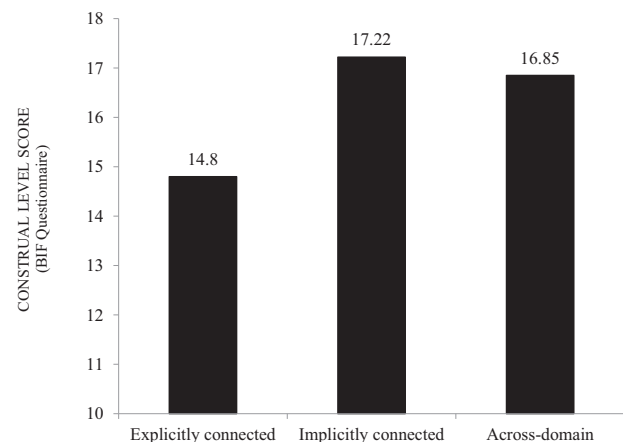
Five participants who did not write anything in the self-threat task were excluded from analyses. In addition, three participants did not complete the BIF and were also removed. The data were analyzed for the remaining 93 participants.

5.2.2 Hypothesis testing

We expected that threatened participants compensating with explicitly connected products would display a lower construal level compared to those who compensated with implicitly connected and across-domain products and that the latter two conditions would not differ. A one-way ANOVA revealed the predicted main effect of product connection on construal level ($F(2, 90) = 3.34, p = 0.040$; Figure 2). Threatened participants who compensated within-domain via explicitly connected products exhibited lower construal levels ($M = 14.80, SE = 0.83$) than those who compensated with implicitly connected ($M = 17.22, SE = 0.60; p = 0.018$) or across-domain products ($M = 16.85, SE = 0.67; p = 0.046$), and the latter two conditions did not differ ($p = 0.70$). The results remained significant when mood was included as a control variable.

The results are consistent with our hypotheses using indirect measures of self-control. Previous research has shown that self-control resource depletion lowers construal level (Wan and Agrawal, 2011; Trope and Liberman, 2003). Thus, our findings are consistent with an interpretation that compensating within-domain with explicitly connected products undermines self-control compared to compensating with implicitly connected or across-domain products, as shown in Study 1. Our findings again suggest that it is not within-domain compensatory consumption *per se* that depletes self-control, but whether the connections between the compensatory products and the self-threat domain are made explicit. In Study 3, we address the underlying mechanism.

Figure 2 Construal level score as a function of product connection (Study 2)



Note: Study 2: Construal level score

Source: Authors' own work

6. Study 3

The objective of Study 3 was to test the underlying mechanism proposed by Lisjak *et al.* (2015), that within-domain compensation increases rumination about the self-threat relative to across-domain compensation, which in turn differentially impacts self-control. However, we hypothesized that within-domain compensation would increase rumination only when the connection between the compensatory products and the self-threat domain were made explicit, and rumination in turn would lead to lower self-control only for explicitly connected products. To test these hypotheses, we either threatened or did not threaten participants on the domain of intelligence, and then manipulated whether they were given the opportunity to compensate via implicit, explicit, or across-domain product connections. We then assessed whether compensation would lead to rumination about the self-threat and a reduction in self-control. We operationalized self-control using a measure of impulse buying tendency, which is often used as an indicator or proxy measure for self-control (Baumeister, 2002; Sultan *et al.*, 2012; Zhang and Shrum, 2009).

6.1 Method

6.1.1 Participants and design

Two hundred forty-six Indian communication and journalism students participated for a chance to win gift vouchers ranging from Rs. 500 (US\$6.00) to Rs 1000 (US\$12.00). They were randomly assigned to conditions in a 2 (threat: yes vs no) $\times$ 3 (product connection: explicit vs implicit vs across) between-subjects design.

6.1.2 Procedure

First, participants were either threatened on intelligence with the same manipulation used in Study 2 or were not threatened (wrote about their daily routine on a normal weekday), and we then manipulated product connection using the same procedure as Study 1 (prize selection study). The within-domain compensatory products and implicit and explicit product connection slogans were the same as in Studies 1 and 2, whereas the across-domain products were ones symbolic of benevolence (see Lisjak *et al.*, 2015). Participants in the across-domain product condition were presented with three products (a pack of UNICEF cards, a box of candles and jute bags) that symbolized the domain of benevolence. These three products were presented with slogans and descriptions linking them to support for special children, underprivileged women and vulnerable children (see Supplementary Material). Each participant was asked to select one of the products as their choice for the most suitable prize.

Following that, we measured rumination with a three-item scale adapted from Brunstein and Gollwitzer (1996; see also Lisjak *et al.*, 2015). Participants were asked to report the extent to which the process of considering the three products and making their choices reminded them of the experience that they had recalled in the writing study (the threat manipulation), gave them unwanted thoughts about that experience and made them think about their weaknesses (1 = not at all, 9 = very much; $\alpha = 0.81$). Next, we measured impulse buying tendency with a measure adapted from those used in previous studies (cf. Dholakia *et al.*, 2006; Sultan *et al.*, 2012) in which participants

place themselves in a shopping scenario and rate their urge to make an instant and unplanned purchase of a shirt (two items, $r = 0.57$; 1 = strongly disagree, 9 = strongly agree). Finally, we measured mood with the 20-item Positive and Negative Affect Schedule (Watson *et al.*, 1988), and participants provided demographic information and were asked about their perceptions of the purpose of the study. No one guessed the purpose of the study.

6.2 Results and discussion

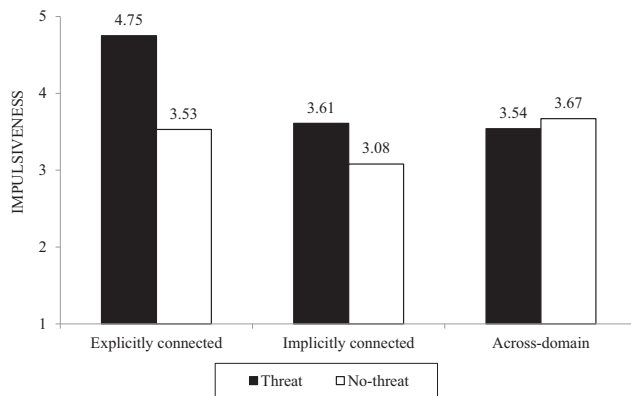
6.2.1 Exclusion criteria

The data from five participants who did not write anything in the writing task were excluded, leaving 242 participants for analysis.

6.2.2 Hypothesis testing

We expected that participants who compensated within-domain with explicitly connected products would show greater impulsiveness following a self-threat than would those who compensated with either implicitly connected or across-domain products, and that the latter two would not differ from each other or from those who were not threatened. We also expected that these differential effects would be mediated by rumination about the self-threat, such that those compensating with explicitly connected products would ruminate about the self-threat more than those compensating with implicitly connected or across-domain products or from non-threatened participants. To test these hypotheses, we first conducted a 2 (threat: yes vs no) $\times$ 3 (product connection: explicit vs implicit vs across) ANOVA, with impulsiveness as the dependent variable. The main effects of threat ($F(1, 236) = 6.17, p = 0.014$) and product connection ($F(2, 236) = 4.63, p = 0.011$) were significant. More central to our hypotheses, the threat $\times$ product connection interaction was significant ($F(2, 236) = 3.17, p = 0.044$; Figure 3). As expected, threatened participants who compensated with explicitly connected products were more impulsive ($M = 4.75, SE = 0.27$) than those who compensated with implicitly connected ($M = 3.61, SE = 0.26; t(236) = 3.06, p = 0.002$) or across-domain products ($M = 3.54, SE = 0.27; t(236) = 3.21, p = 0.002$) and more than non-threatened participants who chose explicitly connected products ($M = 3.53, SE = 0.27; t(236) = 3.22, p = 0.001$). Importantly, non-threatened participants who chose explicitly connected products ($M = 3.53, SE = 0.27$) reported equally low levels of impulsiveness as those who chose products that were implicitly connected to intelligence ($M = 3.08, SE = 0.26; t(236) = 1.18, p = 0.24$), or were connected to the alternative domain of benevolence ($M = 3.67, SE = 0.27; t(236) = -0.37, p = 0.71$).

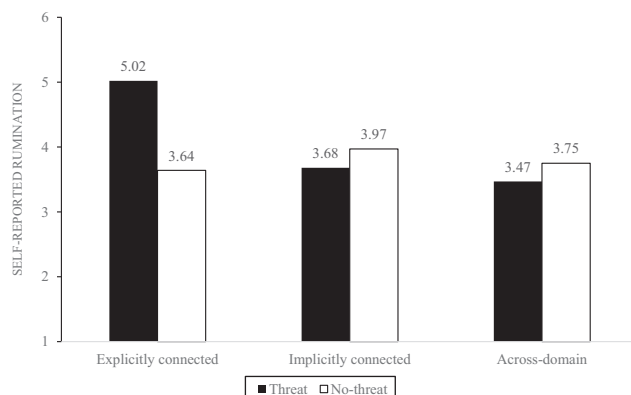
Consistent with our moderated mediation hypothesis, we also expected that participants who compensated within-domain with explicitly connected products would ruminate more about the self-threat than would those who compensated with either implicitly connected or across-domain products and that the latter two would not differ from each other or from those who were not threatened. To test this hypothesis, we conducted a 2 (threat: yes vs no) $\times$ 3 (product connection: explicit vs implicit vs across) ANOVA, with rumination as the dependent variable. The main effect of threat was not significant ($F(1, 236) = 1.14, p = 0.28$), but the main effect of

Figure 3 Impulsiveness as a function of product connection and threat condition (Study 3)

Source: Authors' own work

product connection was marginally significant ($F(2, 236) = 2.71, p = 0.07$). More central to our hypotheses, the threat $\times$ product connection interaction was significant ($F(2, 236) = 4.62, p = 0.011$; Figure 4). Planned comparisons revealed that as expected, threatened participants who compensated with explicitly connected products ruminated more ($M = 5.02, SE = 0.37$) than those who compensated with implicitly connected ($M = 3.68, SE = 0.32; t(236) = 3.04, p = 0.003$) or across-domain products ($M = 3.47, SE = 0.31; t(236) = 3.47, p = 0.001$) and more than non-threatened participants who chose explicitly connected products ($M = 3.64, SE = 0.36; t(236) = 3.08, p = 0.002$). Importantly, non-threatened participants who chose explicitly connected products ($M = 3.64, SE = 0.36$) reported equally low levels of rumination as those who chose products that were implicitly connected to intelligence ($M = 3.97, SE = 0.28; t(236) = -0.74, p = 0.46$), or were connected to the alternative domain of benevolence ($M = 3.75, SE = 0.23; t(236) = -0.25, p = 0.81$). The results remained significant when mood was included as a control variable.

We tested our moderated mediation hypothesis using Hayes' (2017) SPSS PROCESS macro Model 8 with 5,000

Figure 4 Self-reported rumination as a function of product connection and threat condition (Study 3)

Source: Authors' own work

bootstrapping resamples. Model 8 allows for moderation of both the a path and the c path. We expected that rumination about the threatened aspect of the self-identity would mediate the relationship between self-threat and self-control (impulse buying tendency) and that the type of product connection (explicit vs implicit vs across) would moderate these mediation effects. The indirect effect of the threat $\times$ product connection interaction on impulsiveness through rumination was significant (95% CI = $[-0.95, -0.10]$, 5000 iterations, index of moderated mediation for product connection (W1) = -0.493). The indirect effect of the threat $\times$ product connection interaction on impulsiveness was also significant (95% CI = $[-0.92, -0.11]$, index of moderated mediation for product connection (W2) = -0.491). The threat $\times$ product connection interaction had a significant effect on rumination ($b = -1.67, p = 0.013$), indicating that the association between threat and rumination was moderated by product connection. The moderated mediation effect was established given that the indirect pathway was moderated by product connection.

As expected, the conditional indirect effect of threat on impulsiveness through rumination was positive and significant for compensation with explicitly connected products ($b = 0.41, SE = 0.17, 95\% \text{ CI} = [0.10, 0.77]$) but not significant for compensation with either implicitly connected ($b = -0.08, SE = 0.13, 95\% \text{ CI} = [-0.34, 0.16]$) or across-domain products ($b = -0.08, SE = 0.12, 95\% \text{ CI} = [-0.31, 0.15]$). The same pattern of results was observed for conditional direct effects of threat on impulsiveness (self-control), such that only for compensation with explicitly connected products were these effects significant ($b = 0.82, SE = 0.35, 95\% \text{ CI} = [0.13, 1.50]$; implicitly connected 95% CI = $[-0.10, 1.31]$; across domain 95% CI = $[-0.77, 0.68]$). Taken together, the results of Study 3 indicate that within-domain compensatory consumption impairs self-control when the compensatory products are explicitly connected to the domain of self-threat, but not when they are implicitly connected to the threat domain or are connected to an alternate self-domain unrelated to the threatened one. The results also show that these differential effects of compensatory consumption are mediated by rumination that results from compensating with explicitly connected products.

7. General discussion

Compensatory consumption is one of the means through which individuals may seek to address threats to their self-identity. Recent research by Lisjak et al. (2015) compared within- and across-domain compensatory consumption in their effects on self-control. They showed that compared to across-domain compensatory consumption, within-domain compensatory consumption, being symbolic of the self-threat domain, triggered ruminative thoughts about the threat, which in turn led to impairment of self-control. In the present research, we revisited these findings to test whether within-domain compensatory consumption causes such self-control impairments in general, or only under certain contextual conditions. Across three experiments using different measures and manipulations, we showed that within-domain compensatory consumption does indeed impede subsequent self-regulation, but only when the connection between the

compensatory products and the threatened self-domain is made explicit through a product's name or slogan (Studies 1 and 2). In Study 3, we addressed the underlying mechanism of rumination, showing that compensating with explicitly connected – but not implicitly connected or across domain products – reduces self-control, and the differential results are mediated by self-threat rumination.

Our findings fully replicate [Lisjak et al. \(2015\)](#) in explicit connection conditions, including both the effect of within-domain consumption on subsequent self-regulation and the underlying mechanism of rumination. However, our findings also suggest that when the connections between the product and self-domain are implicit, within-domain compensation does not inhibit subsequent self-regulation. Put differently, our findings suggest that it is not within-domain compensation *per se* that reduces self-regulation, but rather that the explicit connections foster subsequent rumination and reduced self-regulation.

7.1 Contributions and future research

Our research makes several contributions. First, we qualify the findings of [Lisjak et al. \(2015\)](#) by identifying the type of product connection as a key boundary condition of within-domain compensatory consumption's impact on subsequent self-control. Thus, researchers need to be conscious of the type of products they use in compensatory consumption studies because the type of connections that the products make with the self-threat domain may influence their findings. Second, we extend the research by [Rustagi and Shrum \(2019\)](#) that has shown the differential effects of within-domain compensatory consumption on self-identity repair based on the type of product connections.

Third, our findings have practical implications for marketing managers. We show that making product connections explicit (via marketing efforts) may reduce the self-control resources of a certain segment of consumers that may be dealing with a related self-threat. For these consumers, explicit appeals may translate into a greater propensity to buy or consume the within-domain products. For instance, marketing of luxury products often associates them with prestige and status ([Kim et al., 2022](#); [Pandelaere and Shrum, 2020](#)). Consumers of luxury products are also often driven by the urge to bolster their need for power and status and to win recognition from others. They perhaps feel threatened or insecure on these aspects of their self. In such cases, explicit signaling to the domain of power and status may result in a stronger intent to buy, as direct associations may lower the self-control resources required to resist the temptation. However, managers need to be wary of the ethical issues involved, as consuming within-domain products that have explicit connections to the threatened self-domain may hinder the self-repair that results from consuming within-domain products with implicit product connections to the threatened self-domain ([Rustagi and Shrum, 2019](#)). Similarly, repeat and heavy consumers of grooming services (salons, beauty parlours) may have a high need for an attractive appearance that may reflect a certain insecurity about the way they look. In such cases, marketing communications with explicit reference to appearance and looks may lead to stronger consumer interest, but with similar ethical concerns. However, in some cases, ethical concerns may not emerge. For instance, a

math coaching center that provides remedial classes for students with weak math skills may explicitly state that its classes help weak students improve their math skills. Once such students attend the remedial classes, it may improve their math skills and enhance the aspect of their self-image tied to their math skills.

Our findings also suggest avenues for future research. For example, does the type of product connection (implicit vs explicit) influence a threatened person's preferences between within- and across-domain compensatory products? In most research, participants are not given a choice between within- or across-domain compensation. Do they have a preference? Does one avenue lead to more successful self-repair than the other? A related question relates to the effects of explicit connections on self-repair success for across-domain compensation. For example, does compensating with products explicitly connected to a threat-unrelated identity domain better affirm the overall self-identity than compensating with products implicitly connected to a threat-unrelated identity domain? Thus, although compensatory consumption has become a mature research topic, there are still important questions left to answer.

Notes

- 1 We adopt [Rucker and Galinsky's \(2013\)](#) conceptualization of compensatory consumption to include not only acquisition but also the desire for and use of products in response to a psychological deficit.
- 2 Note that we use the term *compensate* to refer to the act of choosing a product following a self-threat, consistent with prior research (cf. [Lisjak et al., 2015](#); [Rustagi and Shrum, 2019](#)) and not to whether the compensatory behavior was successful in restoring the self-concept to pre-threat levels (for a review, see [Shrum et al., 2024](#)).

References

- Baumeister, R.F. (2002), "Yielding to temptation: self-control failure, impulsive purchasing, and consumer behavior", *Journal of Consumer Research*, Vol. 28 No. 4, pp. 670–676.
- Brunstein, J.C. and Gollwitzer, P.M. (1996), "Effects of failure on subsequent performance: the importance of self-defining goals", *Journal of Personality and Social Psychology*, Vol. 70 No. 2, pp. 395–407.
- Comrie, B. (2022), "Language and thought, linguistic society of America", available at: www.linguisticsociety.org/resource/language-and-thought (accessed 14 February 2022).
- Cutright, K., Wu, E., Banfield, J., Kay, A. and Fitzsimons, G. (2011), "When your world must be defended: choosing products to justify the system", *Journal of Consumer Research*, Vol. 38 No. 1, pp. 62–77.
- Dholakia, U.M., Gopinath, M., Bagozzi, R.P. and Nataraajan, R. (2006), "The role of regulatory focus in the experience and self-control of desire for temptations", *Journal of Consumer Psychology*, Vol. 16 No. 2, pp. 163–175.
- Gao, L., Wheeler, S. and Shiv, B. (2009), "The 'shaken self': product choices as a means of restoring self-view confidence", *Journal of Consumer Research*, Vol. 36 No. 1, pp. 29–38.

- Gross, J. (1998), "The emerging field of emotion regulation: an integrative review", *Review of General Psychology*, Vol. 2 No. 3, pp. 271-299.
- Hayes, A.F. (2017), "Introduction to mediation, moderation, and conditional process analysis: a regression-based approach", Guilford publications.
- Higgins, E. (1987), "Self-discrepancy: a theory relating self and affect", *Psychological Review*, Vol. 94 No. 3, pp. 319-340.
- Kim, S. and Gal, D. (2014), "From compensatory consumption to adaptive consumption: the role of self-acceptance in resolving self-deficits", *Journal of Consumer Research*, Vol. 41 No. 2, pp. 526-542.
- Kim, S. and Rucker, D. (2012), "Bracing for the psychological storm: proactive versus reactive compensatory consumption", *Journal of Consumer Research*, Vol. 39 No. 4, pp. 815-830.
- Kim, S., Park, K. and Shrum, L.J. (2022), "Cause-related marketing of luxury brands: nudging materialists to act prosocially", *Psychology & Marketing*, Vol. 39 No. 6, pp. 1204-1217.
- Lee, J. and Shrum, L.J. (2012), "Conspicuous consumption versus charitable behavior in response to social exclusion: a differential needs explanation", *Journal of Consumer Research*, Vol. 39 No. 3, pp. 530-544.
- Lisjak, M., Bonezzi, A., Kim, S. and Rucker, D. (2015), "Perils of compensatory consumption: within-domain compensation undermines subsequent self-regulation", *Journal of Consumer Research*, Vol. 41 No. 5, pp. 1186-1203.
- Mandel, N., Rucker, D., Levav, J. and Galinsky, A. (2017), "The compensatory consumer behavior model: how self-discrepancies drive consumer behavior", *Journal of Consumer Psychology*, Vol. 27 No. 1, pp. 133-146.
- Martin, L.L. and Tesser, A. (1996), "Some ruminative thoughts", in Wyer, R.S., Jr. (Ed.), *Ruminative Thoughts: Advances in Social Cognition*, Vol. 9, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 1-47.
- Pandelaere, M. and Shrum, L.J. (2020), "Fulfilling identity motives through luxury consumption", Morhart, F., Wilcox, K. and Czellar, S. (Eds), *Research Handbook on Luxury Branding*, Edward Elgar Publishing, Cheltenham, pp. 57-74.
- Rucker, D. and Galinsky, A. (2008), "Desire to acquire: powerlessness and compensatory consumption", *Journal of Consumer Research*, Vol. 35 No. 2, pp. 257-267.
- Rucker, D.D. and Galinsky, A.D. (2013), "Compensatory consumption", in Ruvio, A.A. and Belk, R.W. (Eds), *The Routledge Companion to Identity and Consumption*, Routledge, New York, NY, pp. 207-215.
- Rustagi, N. and Shrum, L.J. (2019), "Undermining the restorative potential of compensatory consumption: a product's explicit identity connection impedes self-repair", *Journal of Consumer Research*, Vol. 46 No. 1, pp. 119-139.
- Shrum, L.J., Fumagalli, E. and Lowrey, T.M. (2024), "The efficacy of self-repair through compensatory consumption", Belk, R. and Ruvio, A.A. (Eds), *Routledge Handbook of Identity and Consumption*, 2nd ed., Routledge, New York, NY.
- Sivanathan, N. and Pettit, N. (2010), "Protecting the self through consumption: status goods as affirmational commodities", *Journal of Experimental Social Psychology*, Vol. 46 No. 3, pp. 564-570.
- Steele, C.M. (1988), "The psychology of self-affirmation: sustaining the integrity of the self", in Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology*, Vol. 21, Academic Press, San Diego, CA, pp. 261-302.
- Sultan, A.J., Joireman, J. and Sprott, D.E. (2012), "Building consumer self-control: the effect of self-control exercises on impulse buying urges", *Marketing Letters*, Vol. 23 No. 1, pp. 61-72.
- Trope, Y. and Liberman, N. (2003), "Temporal construal", *Psychological Review*, Vol. 110 No. 3, pp. 403-421.
- Vallacher, R. and Wegner, D. (1989), "Levels of personal agency: individual variation in action identification", *Journal of Personality and Social Psychology*, Vol. 57 No. 4, pp. 660-671.
- Wan, E. and Agrawal, N. (2011), "Carryover effects of self-control on decision making: a construal-level perspective", *Journal of Consumer Research*, Vol. 38 No. 1, pp. 199-214.
- Watson, D., Clark, L. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales", *Journal of Personality and Social Psychology*, Vol. 54 No. 6, pp. 1063-1070.
- Wicklund, R.A. and Gollwitzer, P.M. (1982), *Symbolic Self-Completion*, Erlbaum, Hillsdale, NJ.
- Zhang, Y. and Shrum, L.J. (2009), "The influence of self-construal on impulsive consumption", *Journal of Consumer Research*, Vol. 35 No. 5, pp. 838-850.

Supplementary material

The supplementary material for this article can be found online.

Corresponding author

Nimish Rustagi can be contacted at: nimish.rustagi@gmail.com