The Plastic Trap: Self-Threat Drives Credit Usage and Status Consumption

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Abstract
Conspicuous consumption and its accompanying debt played a critical role in crippling global financial markets in 2008. Although a confluence of factors contribute to hyper-consumerism, the authors explore the potential role of two psychological forces—the desire to combat self-threats through compensatory consumption and the relatively pain-free experience of consuming on credit—that may have interactively contributed to the pernicious cycle of consumption and debt. Consistent with their predictions, the authors find that self-threat sways individuals to consume with credit over cash (Experiment 1) and the interactive effect of self-threat, product status, and payment method creates a perfect storm, whereby threatened individuals not only seek to consume high-status goods but also, when using credit, do so at higher costs to themselves (Experiment 2). These findings have broad implications for consumer decision making and offer psychologically grounded insights into the regulation of lending policies aimed at promoting consumer health.

Keywords
compensatory consumption, cash versus credit, expenditure, self-threat, status

Mounting credit card debt continues to be of significant concern to consumers and policy makers alike (Geisst, 2009; Gross & Souleles, 2002). Although a multitude of factors contributed to this rise—including both the increased availability of and consumers’ reliance on credit over the past few decades—a commonly cited reason in the popular press (e.g., Danziger, 2006; Simonds, 2010) and among scholars (e.g., Frank, 2000; Heffetz, in press) is consumers’ increased spending on conspicuous, positional goods.¹ Conspicuous goods are those acquired not for their inherent objective or subjective value but instead to signal social status (Veblen, 1889/1994). Ironically, a disproportionate amount of such conspicuous spending is commonly observed among the income constrained (e.g., Banerjee & Duflo, 2007; Charles, Hurst, & Roussanov, 2009), those who can least afford superfluous expenditure.

Economists have long argued that individuals, particularly those in the lower socioeconomic stratum (Charles et al., 2009), engage in conspicuous consumption to signal (Zahavi, 1975) their status in society (e.g., Frank, 1985, 2000; Futagami & Shibata, 1998; Smith, 1759/1969). Since one’s income, a common marker of status (e.g., Corneo & Jeanne, 1997), is not visible to others, individuals can speciously signal their wealth by displaying products that are a surrogate for income, such as luxury watches, expensive cars, and designer clothes. Alternatively, a psychological perspective on this phenomenon suggests that status consumption is driven by a desire to restore various forms of self-worth. For instance, aversive psychological states such as powerlessness (Rucker & Galinsky, 2008, 2009) and self-threat (Sivanathan & Pettit, 2010) drive individuals to consume status goods for their compensatory benefits.

We contend that this desire to protect and restore one’s self-worth affects not only what is consumed but also how it is consumed—purchased through credit versus cash. Specifically, the very same psychological force (i.e., threatened self-worth) that compels individuals toward status consumption may also increase individuals’ likelihood of consuming these goods through credit rather than cash.

Compensatory Consumption
There is a well-established relationship between the self and one’s possession (e.g., Beggin, 1992; Belk, 1988; Fromm, 1976; James, 1890). When an important aspect of the self or one’s identity is threatened, possessions can serve a restorative function by allowing individuals to signal their identity to others (Braun & Wicklund, 1989; Wicklund & Gollwitzer, 1981). Beyond identity-based threats, specific psychological states such as powerlessness (Rucker & Galinsky, 2008, 2009), low self-view confidence (Gao, Wheeler, & Shiv, 2009), and negative affect (Cryder, Lerner, Gross, & Dahl, 2008) can also trigger compensatory status consumption. The sum of this work

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suggests that a range of aversive psychological states—that can most generally be characterized as potential threats to the self—cause individuals to consume status goods for their compensatory properties (e.g., Sivanathan & Pettit, 2010).

**Psychological States and Economic Decision Making**

Inherent in all consumption decisions are the choices of both whether to buy a given product and what means to utilize to acquire it (cash vs. credit). Although it is established that various forms of threat steer individuals toward high-status goods (e.g., Cryder et al., 2008; Gao et al., 2009; Rucker & Galinsky, 2008), it is unclear how these threats influence the means by which threatened individuals choose to spend.

A growing literature has demonstrated how our existing psychological states influence our subsequent economic choices (e.g., Caplin & Lealy, 2001; Elster, 1996; Lerner, Small, & Loewenstein, 2004; Loewenstein, 2000; Mellors & Ritov, in press). For instance, Loewenstein (1996) argues that aversive, threatening states can lead to economic choices that serve people’s immediate interests but that often have negative long-term consequences. As an illustration, Lerner and colleagues (2004) observed that individuals experiencing sadness were willing to accept lower selling prices and to pay higher purchasing prices for a product than neutral participants, an economically suboptimal choice but one that is consistent with the immediate “implicit goal of changing one’s circumstances” brought on by sadness (p. 338). Overall, this work suggests that our general consideration toward neutralizing aversive psychological states, and restoring the integrity of the self, has implications for a range of economic phenomenon—including not only what we buy but also perhaps how we buy it.

**Self-Threat and the Allure of Credit**

Consumers evaluate the attractiveness of a good by weighing the hedonic pleasure (utility) derived from the good against the psychological pain (disutility) associated with paying for that good (Prelec & Loewenstein, 1998; Thaler, 1985, 1999). Thus, individuals prefer goods that maximize hedonic pleasure while minimizing the psychological “pain of paying” (Prelec & Loewenstein, 1998, p. 4). An important determinant of this transactional value is the method of payment—payment that is up front (i.e., cash) versus payment that is delayed (i.e., line of credit; e.g., Raghbir & Srivastava, 2008). Specifically, purchasing with cash is characterized by a tight coupling of consumption (pleasure) and payment (pain), whereas the physical transfer of cash is vivid and makes salient to the consumer the expenditure (i.e., disutility) being incurred in purchasing a good (Gourville & Soman, 1998; Prelec & Loewenstein, 1998; Raghbir & Srivastava, 2008; Soman, 2003). In contrast, purchasing on credit affords the consumer the opportunity to temporally decouple payment from consumption and in essence anesthetize the “pain of paying” (e.g., Feinberg, 1986; Prelec & Loewenstein, 1998). By deferring payment (i.e., disutility) to a future date and therefore divorcing actual payment from the purchase, credit helps dull the sting of expenditure while maintaining the pleasure of consumption. Thus, despite credit having no direct alteration on the price of the product, this temporal shift in payment markedly alters the psychological impact of consumption on the self.

This desire to temporally distance the pain of expenditure from the pleasure of consumption, we contend, is especially important to a threatened self. Given that self-threat is an aversive psychological state (e.g., Steele, 1988), individuals experiencing self-threat and therefore looking to protect themselves from additional psychological harm should prefer credit over cash more often than nonthreatened individuals. That is, credit’s ability to offer a relatively less psychologically painful route to consumption, compared to cash, will be particularly alluring to individuals already experiencing psychological pain (i.e., self-threat), thereby increasing their credit preference from baseline. Moreover, we contend that the option to purchase high-status goods on credit will be especially attractive to those who are under self-threat, as these consumers are afforded the affirmitative benefits of status consumption (Sivanathan & Pettit, 2010) without the additional psychological pain that accompanies cash expenditures.

**Experiment 1**

Although a range of situational factors (e.g., access, rewards programs, convenience, vendor acceptance) and personal characteristics (e.g., age, education, ethnicity, income) influence one’s baseline preference for purchasing with cash/savings or credit (e.g., Chien & Devaney, 2001; Roberts & Jones, 2001; Tokunaga, 1993), we believe that experiencing self-threat will increase the desirability of paying with credit. Therefore, before analyzing the interactive effect of threat, payment method, and status of the good on individuals’ willingness to spend, we first set out to establish that self-threat influences individuals’ preferred method of expenditure (credit vs. cash).

To examine self-threat as the underlying mechanism we employed a moderation-of-process approach to test for mediation in Experiment 1 (Aronson, Wilson, & Brewer, 1998; Bullock, Green, & Ha, 2010; Spencer, Zanna, & Fong, 2005). Specifically, to manipulate self-threat, participants were randomly assigned performance feedback that was either threatening or nonthreatening to their self-worth. Receiving negative feedback in a self-relevant domain is a common way to incite self-threat (e.g., Braun & Wicklund, 1989; Heatherton & Polivy, 1991; Pettit & Lount, 2010; Sinclair & Kunda, 1999; Wicklund & Gollwitzer, 1981). Afterward, participants were given either a self-affirmation or other-affirmation task before selecting their preferred payment method. Confirmation tasks provide an opportunity to secure the self (e.g., Sherman & Cohen, 2006; Steele, 1988) and are commonly used to test for self-threat as an underlying mechanism (e.g., Johnson & Stapel, 2007; McQueen & Klein, 2006; Sivanathan, Molden, Galinsky, & Ku, 2008; Steele & Aronson, 1995; Steele & Liu, 1983).
Since paying with credit is less psychologically painful than paying with cash, we predicted that when participants were not provided the opportunity to self-affirm, those receiving threatening negative feedback—and therefore seeking to avoid further compromising their already damaged self-worth—would show a greater willingness to purchase with credit than those receiving nonthreatening feedback. However, when participants were provided the opportunity to self-affirm, and therefore alleviate any existing threat, we anticipated prior feedback (threatening vs. nontargeting) would have no effect on participants’ preference for credit.

Method

Participants and Design. In exchange for being entered into a prize drawing, 160 university students (Mage = 20.9 years; 64% female) were randomly assigned to a condition in a 2 (feedback: self-threatening, nontargeting) × 2 (self-affirmation: yes, no) between-subjects factorial design.2

Procedure. Participants completed the study online and were informed that they would be participating in several unrelated studies. First, participants were asked to “spend a couple of minutes thinking about a consumer product that you have been considering purchasing sometime in the relatively near future.” Participants then briefly wrote about the product and reported the retail price.

Self-threat manipulation. Afterward, participants completed a task that was purported to measure their spatial reasoning and logic ability. The assessment involved 10 trials, and in each trial the participant was shown a sequence of dots for 3 s and then asked to report the number of dots he or she saw (i.e., dot estimation task; Gerard & Hoyt, 1974). This task and description were chosen because both participants would have difficulty judging their relative performance and reasoning and logic ability were in the 12th percentile (self-affirmation: yes, no) between-subjects factorial design.2

Affirmation manipulation. Following this performance feedback, participants were asked to complete “a short writing task so that we might learn a bit more about you and your values.” Participants in the self-affirmation condition selected from a list of values (e.g., family relationships, health, and well-being) the value that was most important to them and wrote about its importance. Reflecting on a personally important value allows the opportunity to repair general feelings of self-worth (e.g., Sherman & Cohen, 2006; Steele, 1988). In contrast, participants in the no-affirmation condition chose the value that was least important to them and wrote about its potential importance to others. Reflecting on an unimportant value does not provide the opportunity to repair self-worth (see McQueen & Klein, 2006; Steele & Liu, 1983).

Choice of payment type. After completing the writing task, participants were asked, “Imagine that you decide you are going to purchase the product you described earlier, how are you most likely to pay for this product?” (from 1 = I will definitely pay with cash/savings to 9 = I will definitely pay with credit).

Additional measures. Once participants indicated their relative preference to pay with cash/savings versus credit, they responded to 10 items measuring their positive affect (e.g., happy, glad, enthusiastic; α = .88) and 10 items measuring their negative affect (nervous, disappointed, insecure; α = .79; Positive Affect Negative Affect Schedule; Watson, Clark, & Tellegen, 1988). Participants then completed demographic items and were debriefed.

Results

As predicted, a two-way ANOVA with likelihood of paying with cash/savings versus credit as the dependent variable, $F(3, 156) = 3.15, p = .03$, revealed a significant feedback × affirmation interaction, $F(1, 156) = 4.14, p = .04$. In decomposing this interaction, simple effects tests revealed that among participants who were not given the opportunity to self-affirm, those receiving self-threatening negative performance feedback were more likely to purchase the good using credit (M = 4.91, SD = 2.90) than participants receiving nontargeting feedback (M = 3.23, SD = 2.72), $t(156) = 2.43, p = .02, d = 0.60$. In contrast, among participants who were given the opportunity to self-affirm, performance feedback had no effect on their likelihood of purchasing with credit (self-threatening feedback, M = 3.19, SD = 2.72; nontargeting feedback, M = 3.33, SD = 2.76), $t(156) = 0.24, p = .81$. Finally, among participants receiving self-threatening negative feedback, those who were not given the opportunity to self-affirm were significantly more likely to pay with credit (M = 4.91, SD = 2.90) than those given the opportunity to self-affirm (M = 3.19, SD = 2.72), $t(156) = 2.73, p = .01$, $d = 0.62$ (see Figure 1).

Moreover, to ensure this effect was not driven by participants’ positive or negative affect or the cost of product they chose, we conducted an ANCOVA with these variables entered as covariates and feedback (self-threatening, nontargeting) and self-affirmation (yes, no) as the predictor variables. The same feedback × affirmation interaction pattern emerged, $F(1, 156) = 4.09, p = .04$, whereas none of the covariates showed significant effects, $F_s < 0.50, ps > .48$.

Discussion

The results of Experiment 1 are consistent with our theorizing. Specifically, participants receiving self-threatening negative feedback, and therefore needing to shield the self from further
pain, minimized the psychological pain of expenditure by choosing to purchase using credit over cash/savings more so than nonthreatened individuals. However, when participants were offered a route to alleviate this threat (i.e., self-affirm), participants given threatening negative feedback were no more likely to choose credit over cash than individuals who received nonthreatening feedback. Overall, these results suggest that the wounded self plays a critical role in influencing how individuals choose to purchase goods.

Experiment 2

Experiment 2 sought to build on the results of Experiment 1 in several important ways. To examine the interactive effects of self-threat, payment method, and product status on individuals’ willingness to spend, we manipulated, in addition to self-threat, both the status of the product individuals were asked to consider and the method by which they could acquire this product. Specifically, unlike Experiment 1, in the present study participants were not offered a choice of which payment method they preferred but instead were asked how much they were willing to pay for a product (high status vs. no status) given a randomly assigned payment method (i.e., cash/savings vs. credit). This approach allows us to explore both how self-threat influences individuals’ willingness to pay for high-status and no-status goods and if threatened individuals’ increased spending on high-status goods (Rucker & Galinsky, 2008, 2009; Sivanathan & Pettit, 2010) should be willing to pay more for these goods than those receiving nonthreatening feedback. We believe this to be the case because paying with credit allows threatened individuals the compensatory benefits of high-status goods divorced from the immediate psychological cost of payment. However, when individuals receive self-threatening negative feedback and their only available mode of payment is their cash/savings, they should be no more willing to pay for high-status goods than nonthreatened individuals; as the pain associated with parting with one’s cash (e.g., Gourville & Soman, 1998; Raghubir & Srivastava, 2008) would further compromise their already fragile psychological state. Moreover, since no-status goods offer little self-relevant compensatory value, the psychology underlying such purchases should not be affected by self-threat and instead be based solely on the biased mental accounting of spending on credit (e.g., Prelec & Loewenstein, 1998; Thaler, 1999).

Method

Participants and Design. In exchange for $7, 150 university students ($M_{age} = 21.3$ years, 58% female) were randomly assigned to a condition in a 2 (product status: high status, no status) × 2 (feedback: threatening, nonthreatening) × 2 (payment method: credit, cash/savings) between-subjects factorial design.

Procedure

Status manipulation. As in Experiment 1, participants completed an online dot estimation task purported to measure their spatial reasoning and logic ability. While ostensibly awaiting performance feedback, participants were asked to write about
either a pair of exclusive designer jeans (high status) or normal, everyday jeans (no status; cf. Rucker & Galinsky, 2008).

Self-threat manipulation. Participants were then randomly assigned feedback that their spatial reasoning and logic ability was in the 12th percentile (self-threatening) or 88th percentile (nonthreatening) for their age.

Willingness to spend with credit versus cash. After receiving this performance feedback, participants were randomly assigned to a credit or a cash/savings condition. Participants in the credit (cash/savings) condition were asked, “Assuming you were purchasing these jeans using your credit-card [cash/savings], what is the largest percentage of the retail price you would pay?” (from 1% to 120%).” Assuming you were using your credit-card [cash/savings], would you purchase these jeans?” (yes vs. no). The order in which these two questions were presented was randomized. Participants then completed a set of demographic items and were debriefed, paid, and thanked for their time.

Results

A three-way ANOVA, F(7, 145) = 4.86, p < .001, revealed that the relationship between feedback and willingness to pay was influenced by both payment method and the jeans’ status, F(1, 145) = 4.89, p = .03. This three-way interaction was decomposed by examining the high-status and no-status jeans conditions separately. For high-status jeans, a significant feedback × payment interaction emerged, F(1, 68) = 4.56, p = .04. Specifically, when using credit, participants receiving self-threatening negative feedback were willing to pay significantly more for high-status jeans (M = 79.40%, SD = 21.82) than those receiving nonthreatening feedback (M = 61.73%, SD = 24.79), t(65) = 2.18, p = .03, d = .76, whereas payment with cash/savings did not differ based on feedback (self-threatening feedback: M = 45.33%, SD = 26.96; nonthreatening feedback: M = 52.78%, SD = 24.45), t(65) = 0.87, p = .39. Moreover, participants receiving self-threatening negative feedback were willing to pay more for high-status jeans using credit (M = 79.40%, SD = 21.82) than using cash/savings (M = 45.33%, SD = 26.96), t(65) = 3.99, p < .001, d = 1.40, whereas participants receiving nonthreatening feedback did not differ in their willingness to pay based on payment method (credit: M = 61.73%, SD = 24.79; cash/savings: M = 52.78%, SD = 24.45), t(65) = 1.09, p = .28. In contrast, for no-status jeans, only a main effect for credit emerged, F(1, 80) = 14.04, p < .001 (feedback × payment interaction, F = 1.06, p = .31; see Figure 2).

In addition, participants’ purchasing decision (yes vs. no) also revealed a significant three-way interaction in the same form as above, β = 3.73, SE = 1.75, p = .04. Decomposing this interaction, for the high-status jeans, a feedback × payment interaction emerged, mirroring the percentage retail price data, β = 3.13, SE = 1.35, p = .02. Specifically, when participants received self-threatening negative feedback, they were marginally more likely to purchase high-status jeans using credit (72.2%) than those receiving nonthreatening feedback (44.4%), χ²(1) = 2.86, p = .09, d = .59. Moreover, participants receiving self-threatening negative feedback were more than 10 times as likely to purchase high-status jeans using credit (72.2%) than cash/savings (6.7%), χ²(1) = 14.36, p < .001, d = 1.76, whereas payment method did not influence willingness to purchase among participants receiving nonthreatening feedback (credit = 44.4%, cash/savings = 33.3%), χ²(1) = 47, p = .49. In contrast, for no-status jeans, only a main effect for credit emerged, β = 1.87, SE = 0.84, p = .03 (feedback × payment interaction, β = −0.603, SE = 1.11, p = .59).

Discussion

Overall, the results of Experiment 2 provide additional support for our theory. Specifically, when credit was made available, participants receiving self-threatening negative feedback were both more likely to purchase high-status goods and willing to pay a higher price for these goods than nonthreatened individuals. In contrast, when cash/savings was the only option, participants receiving self-threatening negative feedback were no more willing to purchase high-status goods and paid no more for them than nonthreatened participants, as the potential utility of consumption may have been outweighed by the disutility of expenditure (e.g., Kivetz, 1999; Prelec & Loewenstein, 1998). Together, these results suggest that when individuals are under self-threat, and therefore seeking to repair their wounded egos, they increase their spending on compensatory high-status goods only when the psychological cost of payment can be minimized (i.e., paying with credit).

General Discussion

Our goal in this research was to explore how the psychology of the self (e.g., Baumeister, 1998; James, 1890) affects both the method (cash/savings vs. credit) by which individuals prefer to spend (Experiment 1) and the amount individuals are willing to spend when considering compensatory high-status goods (Experiment 2). Specifically, threatened individuals, those who can least withstand additional psychological harm, prefer to purchase in the psychologically comforting embrace of credit more so than nonthreatened individuals (Experiment 1). In addition, when credit is the only available route for consumption, threatened individuals sought high-status goods more than nonthreatened individuals, as it afforded them the ability to decouple the psychological cost of expenditure from the compensatory benefits of high-status consumption. However, when cash/savings was their only option, threatened individuals were no more likely than nonthreatened individuals to purchase high-status goods, as the potential psychological rewards of consumption may be outweighed by the psychological pain associated with payment (Experiment 2). Overall, the interactive effect of threat, status goods, and payment method creates a perfect storm that fuels both the likelihood of purchasing and amount paid for high-status goods.
These findings have significant implications for multiple elements of consumer decision making. Although previous investigations have shown that various self-threats prompt compensatory status consumption (e.g., Gao et al., 2009; Rucker & Galinsky, 2008), we expand on this work by demonstrating that the very same mechanism that steers consumers toward high-status goods (i.e., self-threat) also plays a fundamental role in determining the means by which they prefer to spend. Specifically, since compensatory consumption is driven by the desire to assuage threat, such behavior was most often observed when the means of expenditure (i.e., credit) did not further contribute to the pain of an already aversive state. That is, the more consumers could decouple the hedonic pleasure of consumption from the psychological pain of expenditure, the more threatened individuals were willing to seek solace in high-status goods. By examining the impact of self-threat on both what individuals buy and how they buy it, we offer a more complete portrait of the self’s crucial role in consumer behavior.

Moreover, our results suggest a potential psychological alternative to the economic explanation for the credit crisis that claimed the financial health of many consumers in 2008 (Geisst, 2009). Specifically, from an economic perspective, the recent rise in credit card debt among the income constrained might be explained, in part, by the fact that their limited financial means forced them to rely on credit for more expensive conspicuous purchases (Hirsch, 1967), goods used to singly signal their status to others (e.g., Frank, 2000; Futagami & Shibata, 1998; Zahavi, 1975). In contrast, although individuals who are low in socioeconomic status often have limited financial means, it is well established that those with low socioeconomic status also tend to suffer lower self-esteem (Rosenberg & Pearlin, 1978; Twenge & Campbell, 2002). Therefore, in the same way that lower self-worth, a condition common among the income constrained, is shown to drive compensatory spending on expensive high-status goods (Sivanathan & Pettit, 2010), this psychological state may be one factor leading consumers to make such purchases with credit. Together, the desire to affirm the self by consuming high-status goods, the preference to do so with credit, and the increased availability of credit among the income constrained (Diamond & Rajan, 2009) may have come together to create optimal conditions for those who could least afford superfluous expenditure to spend more (Banerjee & Duflo, 2007; Charles et al., 2009) through particularly costly means (i.e., credit; Schuh, Shy, & Stavins, 2010).

Overall, these results provide, for the first time, a potential psychological account of why relaxed lending policies, often aimed at those most likely to combat self-threats through consumption (i.e., consumers of low socioeconomic status), had such dire economic consequences. Perhaps more importantly, these findings offer a timely psychological lens, alternate to the failed economic prescriptions (e.g., Engen, Gale, & Scholz, 1996), for the development of regulatory lending policies aimed at promoting healthy consumer behavior.

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Notes
2. Our sample of participants was drawn from various universities in London, United Kingdom, and a university in the northeastern United States. All participants were randomly assigned to conditions, and there was no effect for participants’ institution on our results, F(1, 155) = 0.01, p = .94.
3. Since labeling one’s affective state can reduce its impact on behaviors, including consumption behavior (e.g., Cryder, Lerner, Gross, & Dahl, 2008; Keltner, Locke, & Audrain, 1993), we followed the recommendations of Cryder and colleagues (2008) and measured positive and negative affect after participants completed all other items.
4. No gender effects were observed in either of the studies in this article.
5. All unreported omnibus ANOVAs in Experiment 2 were significant, Fs > 3.23, ps < .04.

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