

Consumer Reactance to Promotional Favors

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ABSTRACT

Promotional favors are an increasingly popular but seldom researched form of price promotion where the receipt of the saving by consumers depends on an action on their part that is non-monetary in nature, such as completing a questionnaire, posting a review, or making a referral. This paper shows that the tactic can backfire, in the sense that consumers choose cheaper or fewer options—that is, they spend less—than they would in response to a standard (unconditional) discount. We document this effect across five experiments. Experiment 1 is a field test. Experiments 2 to 5 replicate the result in more controlled settings, trace it to a process of psychological reactance, and address plausible alternative explanations. Finally, we review the contributions of our work and propose avenues for future research. (129 words.)

Keywords: Promotional favors, conditional discounts, psychological reactance, price promotion, pricing.

A common ploy among firms that use price promotions is to tie the receipt of the saving by consumers to some behavior on their part additional to the act of purchase. Typically, this behavior takes the form of a “purchase requirement” that impacts the expenditure by consumers, such as a quantity or spend minimum, which the literature recognizes as a means to price discriminate (Chen, Moorthy, and Zhang 2005; Lu and Moorthy 2007) or an opportunity to exploit the malleable preferences of individuals (Inman, Peter, and Raghurir 1997; Lee and Ariely 2006; Wansink, Kent, and Hoch 1998). However, an increasingly popular approach is to condition the saving on an action that is of no monetary consequence to the consumer, such as completing a questionnaire, posting a review, or making a referral. The popularity of these “promotional favors” broadly coincides with the rise of digitalization in the practice of marketing (with firms eager to collect data, mobilize customers on social media, etc.), but to date there is little formal research to support or challenge the trend.

The current paper aims to bridge this gap. Fundamentally, promotional favors differ from purchase requirements in that the effort demanded of consumers (time, information, social capital, etc.) is expressed in a different resource than is the reward for that effort (money). While this characteristic may lead firms to conclude that the tactic is somewhat more discreet, prior research shows that incongruity between effort and reward primes external attributions for one’s behavior (e.g., “I am referring a friend just to get a better price”), which in turn threaten one’s sense of freedom (Kivetz 2005). Individuals who perceive such a threat often experience psychological reactance, a state of arousal directed at restoring autonomy (Brehm 1966; Miron and Brehm 2006). The resulting impulse is to think or act in a contrary way (Brehm and Brehm 1981), but if disobedience is costly psychological reactance manifests instead as hostility toward the instigator (Clee and Wicklund 1980).

In the same way, we suggest that consumers are attracted to promotional favors by the opportunity to save money yet aggravated by the demand imposed on them. The impulse is to reject the offer, but doing so implies sacrificing the discount. Accordingly, we expect consumers to engage in the purchase but choose cheaper or fewer options—that is, spend less—than they would in response to a standard (unconditional) discount.

We document this effect across five experiments. Experiment 1 is a field test. Experiments 2 to 5 replicate the finding in more controlled settings and explore the theory. Specifically, in Experiment 2 we report a serial mediation model in which perceived threat-to-freedom and hostile feelings account for the effect of promotional favors on spending. In Experiment 3, we manipulated the framing of a promotional favor but not the demand itself, which allows us to identify the causal role of psychological reactance (hereafter, simply “reactance”) and, importantly, separate it from the possibility that the tactic is simply unappealing to consumers. In Experiment 4, we measured chronic reactance and checked whether it acts as an additional moderating variable. Finally, in Experiment 5 we pit a promotional favor against a purchase requirement as a means to manipulate incongruity between the effort demanded of consumers (non-monetary or monetary, respectively) and the reward (which is monetary).

Looking back, our work is only the third after articles by Blanchard, Carlson, and Hyodo (2016) and Dallas and Morwitz (2018) to examine promotional favors. Blanchard et al. (2016) show that pairing a price concession with a “favor request” (e.g., posting a review) helps consumers view a price negotiation as more reciprocal, thereby increasing the likelihood that they accept a deal. The authors further show that this perception matters only when the interaction is unique and personal, as is the case in negotiations. Similarly, Dallas and Morwitz

(2018) study offers that are presented as free but subject to a “non-monetary payment” (e.g., providing personal information). They report that consumers are just as likely to accept these pseudo-free offers as they are comparable free offers because the appeal of “free” overshadows the ambiguous and difficult to quantify cost of the demand, which in turn triggers positive attributions for the firm’s intentions.

We differ from these articles in three respects. First, we study the more common setting where a firm posts the same price and offers the same discount to any and all consumers—that is, our context is neither unique nor personal, nor is it one where products are sold at no charge.¹ Second, we focus on the spending decisions of consumers who committed to a purchase, not on purchase incidence itself. Third, we observe a negative effect of promotional favors, not a positive one.

More broadly, the idea that marketing actions can provoke reactance and cause backlash is not new. One familiar example is the study by Fitzsimons and Lehmann (2004), in which consumers contradicted the unsolicited advice of experts and intelligent agents. Other instances involve explicit slogans (Laran, Dalton, and Andrade 2011), stockouts (Fitzsimons 2000), and loyalty programs (Kivetz 2005). We extend this logic to the context of a price promotion. Here, our work brings to mind articles by Dholakia (2006), who shows that clients who joined a bank in response to an introductory discount held less accounts and were more likely to churn than others who entered the relationship of their own initiative; and by Kristofferson et al. (2016), who show that scarcity promotions prompt people to perceive others as competitive threats and

¹ Indeed, Blanchard et al. (2016) argue that consumers do not have the potential to interpret the discount as part of a reciprocal interaction when it is available to the general public. Experiment 4 in their article shows that a favor request has no effect on deal acceptance when this is the case.

activates aggression. However, these studies differ not only in the type of tactic in question, but also the psychology that underlies the findings.

Finally, from a substantive standpoint we believe that the current understanding of promotional favors among firms is incomplete. At first glance, promotional favors make sense to the extent that the benefit of imposing an added demand on consumers outweighs the cost from those who decide not to bother and refuse to purchase. Yet our experiments suggest that this calculus is more nuanced. The impact that we see on spending is striking because promotional favors are not the type that a business instinctively believes can provoke reactance—indeed, the tactic is often labeled a “reward” or “bonus” rather than a “condition.” Moreover, to the extent that a purchase is a sequence of related choices by consumers, it may be surprising to firms that promotional favors reduce spending but have no discerning effect on the prior decision to buy or not. Against this backdrop, marketing professionals should draft promotional favors anticipating and mitigating the prospect of backlash.

CONCEPTUAL FRAMEWORK

Conditional Discounts

Designing a price promotion comprises several steps, including agreeing on whether the receipt of the saving by consumers is immediate and automatic upon purchase or subject to some obligation. Following the literature, we use the term “conditional discount” in reference to a price promotion where “some condition has to be met for the consumer to avail of the discount” (Grewal et al. 2011, p. 47). At the same time, we draw the following distinction.

In some instances, the receipt of the saving depends on an external contingency such as a game of chance, the outcome of a sports fixture, or even the weather. Scholars have questioned whether the presence of such uncertainty appeals to consumers (because it is entertaining, exciting, etc.), even to the point of overcoming, at expectation, a lower payoff than in the case of a sure discount (e.g., Ailawadi et al. 2014; Briley, Danziger, and Li 2018; Goldsmith and Amir 2010). In our research, however, any uncertainty about the price consumers pay is a byproduct of whether they accept or reject an offer; it is not an end in itself.

Alternatively, the receipt of the saving by consumers depends on some action on their part. The norm in the literature is to study demands that are monetary in the sense that they impact the final expenditure by consumers (Dallas and Morwitz 2018), such as a quantity or spend minimum (e.g., “buy X or more units and get Y% off” and “spend \$X or more and get Y% off,” respectively). These “purchase requirements” help businesses discriminate between those in the market who are motivated by low prices and those who purchase regardless (Chen et al. 2005; Lu and Moorthy 2007). They also help businesses exploit the limitations of consumers. For example, research shows that quantity minima inflate quantity decisions when they convey a sense of scarcity (Inman et al. 1997) or serve as anchors in lieu of actual preferences (Wansink et al. 1998). Similarly, Lee and Ariely (2006) show that spend minima inflate spending decisions early in the purchase process when shopping goals are less concrete.

The current paper deviates from this norm because we study situations where the receipt of the saving by consumers hinges on a behavior on their part that is non-monetary—it has no impact on their expenditure, such as completing a questionnaire, posting a review, or making a referral (Dallas and Morwitz 2018). We use the term “promotional favor” to describe this

increasingly popular tactic, taking inspiration from Blanchard et al. (2016) who, in the context of negotiations, referred to similar demands as “favor requests.”

Promotional Favors

The critical feature that distinguishes promotional favors from purchase requirements is that, while the effort demanded of consumers (time, information, social capital, etc.) is non-monetary in nature, the reward for that effort (i.e., the discount) is monetary. This characteristic is important in light of prior research that associates the perception of incongruity between effort and reward with the type of attributions people make for their behaviors (Kivetz 2005). Specifically, while consumers facing a purchase requirement may conclude that the demand imposed by the firm coincides with their individual tastes and preferences (an intrinsic or internal attribution, of the type “I am already interested in buying this product, I am going to buy more to get the discount”), consumers facing a promotional favor may conclude instead that they are being pushed into an action they would not otherwise engage in (an extrinsic or external attribution, of the type “I am referring a friend just to get the discount”).

The locus of the attribution matters because external causes are more likely to threaten one’s sense of freedom (Kivetz 2005). Consumers expect a certain measure of freedom in their purchase decisions and, importantly, they are motivated to restore autonomy when someone or something challenges this prerogative (Brehm 1966; Miron and Brehm 2006; Clee and Wicklund 1980). The clearest example is when shortages, discontinuations, legislation, or other barriers put a choice option out of reach. In these situations, people tend to pursue whatever course of action is taken from them or, similarly, reject whatever course of action is pushed on them—a direct restoration of freedom (Brehm and Brehm 1981).

However, the motivation to restore autonomy is not limited to cases where a behavioral freedom is eliminated, and not all expressions of reactance target the same freedoms that are at risk. First, the mere threat of elimination suffices to provoke reactance, as documented for example when consumers face persuasion attempts from salespeople or advertisements (Bushman and Stack 1996; Wicklund, Slattum, and Solomon 1970). Second, outright disobedience can be costly to the individual, in which case the restoration of freedom occurs indirectly as hostility toward the instigator (Clee and Wicklund 1980).

Promotional Favors and Consumer Spending Behavior

Given this background, our first challenge is understanding what type of response to a promotional favor is consistent with consumer reactance. The straightforward option is that people simply reject the offer. However, this is one instance where the direct restoration of freedom is costly, and for many the lure of a good deal may be sufficient to crowd out the urge to disobey. Accordingly, a cleaner and more nuanced choice is to focus on the behaviors of consumers who accept the offer. For example, in Kivetz (2005) consumers reaffirmed their freedom threatened by the terms of a loyalty program not by rejecting the program, but by choosing rewards that match the type of effort demanded from them. Similarly, in Briley et al. (2018) consumers experienced reactance in response to deals offered as game outcomes even though they chose to play these games.

Hostility toward the firm can assume various forms (for examples, see Clee and Wicklund 1980), but the very fact that promotional favors are non-monetary raises the possibility that consumers act out precisely by choosing cheaper or fewer options—that is, they spend less—than they would in response to a standard discount. We test this first prediction across all but the last experiment.

Consumer Reactance as a Plausible Explanation

Our second challenge is demonstrating that reactance is a valid psychological mechanism. Here, some scholars argue that reactance can be traced directly to the subjective experience of anger and frustration—emotions aroused by a perceived threat to freedom that accompany the urge to restore autonomy (Miron and Brehm 2006). Supporting this idea is the understanding that hostility is an aggression-based response to assessing a relevant threat in one's environment (Rubin 1986); one that then triggers behaviors such as rejecting and attacking (Dillard and Peck 2001). Importantly, we can show that reactance explains the expected relationship between promotional favors and spending if consumers (a) perceive the firm's action as a greater threat to freedom and (b) they experience greater feelings of anger and frustration than do consumers exposed to a standard discount. As Rains and Turner (2007) explained, an apparent threat to freedom is necessary to establish the causal role of reactance, but it is not sufficient: "It should be noted that a perceived threat to freedom is a necessary condition for reactance to occur but is not reactance itself" (p. 244). We test this causal sequence in Experiments 2 and 3.

A different approach to test the theory is to manipulate or measure factors that, according to the literature, are related to the experience of reactance. We focus on two factors. First, Brehm (1966) suggests that a threat to freedom is less aggravating if it is justified or made legitimate to the individual. Second, some people are simply more likely to experience reactance than others are (Briley et al. 2018; Chartrand, Dalton, and Fitzsimons 2007; Fitzsimons and Lehmann 2004). Accordingly, if promotional favors impact spending through a process of reactance, then the effect should be stronger for a demand that consumers deem illegitimate, and stronger the more

consumers are inherently prone to react. We test these predictions in Experiments 3 and 4 respectively.

Finally, it is important to address alternative explanations. One concern is that promotional favors are more effortful than standard discounts, making them less desirable. If true, then any impact on spending stems from selection (consumers who purchase despite the added hassle are likely sensitive to price) or a simple spillover (consumers who dislike the promotional favor carry this judgment over to the purchase). In response, we stress that selection is only a concern in the field test, and in any case several robustness checks downplay this possibility. In addition, it is not clear to us why desirability should impact product choices but not purchase incidence, which precedes it. Above all, however, in Experiment 3 we manipulated the framing of the promotional offer but not the demand itself, which allows us to draw a direct conclusion about the causal role of reactance even as the burden placed on consumers remained constant.

A second concern is that the trigger for the phenomenon is not incongruity between the effort demanded of consumers (which is non-monetary in nature) and the reward (which is monetary), but the demand for effort itself. We tackle this question in Experiment 5, where we contrast a standard discount, a promotional favor, and a purchase requirement—where the last two treatments manipulate incongruity.

EXPERIMENT 1: EVIDENCE FROM THE FIELD

We conducted an experiment in collaboration with a supermarket chain from Central and Eastern Europe to provide evidence in the field of the effect of promotional favors on spending.

At the time of the experiment, this firm generated revenue of approximately €3 billion from more than 1,000 stores. The objective was to test whether a promotional favor, in this case a discount subject to completing a questionnaire, affected the spending behavior of patrons.

Method

The firm helped us identify two stores in the same urban location that are similar in clientele, footprint, annual turnover, product assortment (approximately 20,000 stock-keeping units), number of staff, and physical layout. The experiment took place on a weekday and counted with the help of eight assistants.

The assistants stationed at the entrance of the two stores intercepted 293 customers (49% female, on average 42 years old) and handed them a flyer offering a 5% instant saving on their purchase. The instructions were to shop as normal and then report to a booth located prior to checkout. At this booth, customers exchanged the flyer for a voucher redeemable at the cash register. The flyer served to manipulate one factor, Price Promotion, across three between-subjects conditions. Specifically, patrons assigned to the standard discount (SD) group saw the offer as described. Patrons assigned to the short questionnaire (SQ) or long questionnaire (LQ) groups read instead that the offer was subject to completing a 10-minute or 20-minute market study at the booth, respectively. We ran two promotional favor conditions because we did not have consent from the firm to calibrate the magnitude of the restriction in the field prior to the experiment.²

² At the same time, an online test where we described the setting of the field experiment, presented (at random) one of the two promotional favors, and then asked 38 participants to rate the statements “I am asked to do a lot in exchange for the 5% discount” and “This supermarket's request in exchange of 5% discount imposes significantly on me” separately using the same 1 (“strongly disagree”) to 7 (“strongly agree”) scale indicated that filling out the 20-minute survey is more a demanding request

In reality, the firm surveyed everyone who returned the flyer. Customers in the SD group answered questions on price consciousness (the five-item scale in Lichtenstein, Ridgway, and Netemeyer 1993), shopping habits, and demographic information. Those in the SQ and LQ groups answered the same questions plus others on reasons that influence one's choice of supermarket.

The main dependent variable is the amount spent, which we observed from the receipts issued at the cash register. These receipts included the flyer and voucher codes, which we used to trace patrons back to an experimental group. We also observed the basket size (number of items) and estimated the time spent shopping by taking the difference in minutes between receiving and returning the flyer. A concern is that people tend to allocate a fixed amount of time to shopping, and that the prospect of completing a survey therefore prompted a faster journey across the aisles. The data do not support this claim, as we did not observe a significant difference in time elapsed across conditions: $M_{SD} = 15.48$ vs. $M_{SQ} = 13.87$ vs. $M_{LQ} = 16.13$; $F(2, 233) = 1.75$, $p = .176$.

Results

Table 1 reports the split of the sample across stores and conditions, the number of patrons who opted out upon receiving the flyer or later at the booth, and selected mean scores. It also reports the average expenditure and basket size for a random group of 100 patrons who visited the same stores on the same day but did not take part in the experiment.

than filling out the 10-minute survey: $M_{20} = 5.78$ vs. $M_{10} = 4.04$; $F(1, 36) = 17.05$, $p < .001$, $\eta_p^2 = .321$.

 Insert Table 1 about here

A one-way ANOVA with Spend as the dependent variable, Price Promotion as the independent variable, and Shopping Time and Price Consciousness as covariates indicates a significant effect of Price Promotion: $F(2, 231) = 4.53$, $p = .012$, $\eta_p^2 = .038$.³ Given the difference in the number of patrons who rejected the offer across the three conditions, adding a measure of price consciousness alleviates the problem of selection. (However, the same analysis without covariates yields results that are qualitatively similar.) In addition, we used propensity score matching (PSM) to isolate the effect of the experimental manipulation on Spend from that of shopper heterogeneity (Huang et al. 2012; Rubin 2006). Given the design of the experiment, we conducted two sets of PSM, comparing patrons in the SQ and LQ groups separately to sets of patrons in the SD group, each matched via the observed covariates. The average treatment effects resulting from this analysis are consistent with the result of the ANOVA: both the request to fill the short ($\beta = -.51$, $p < .001$) and long ($\beta = -.60$, $p < .001$) questionnaire had a negative impact on spending.

Next, we conducted several contrasts to explore this finding. First, we compared the mean expenditure in the SD group ($M_{SD} = \text{€}21.01$) to the average expenditure of the two

³ We calculated Spend from regular (undiscounted) prices to avoid the trivial and arbitrary effect of discount percentage on spending: reducing every price by the same proportion impacts (in absolute terms) expensive options more than it does cheap options, thereby making any shift in preference across experimental conditions harder to detect. We also carried out a square root transformation of the values to correct for skewness in the distribution (Hair et al. 2009)—a procedure that we repeated across all the experiments. While we use transformed values in the analyses, for ease of exposition we report means in original values.

promotional favor groups ($M_{AVE} = €18.32$). This contrast is the most appropriate given the nature of the experiment, and we found that the presence of a promotional favor reduced spending: $F(1, 232) = 7.50, p = .005, \eta_p^2 = .033$. (We conducted the same test using basket size as the dependent variable and found only marginal support: $M_{SD} = 11.18$ vs. $M_{AVE} = 10.04$; $F(1, 232) = 2.76, p = .098, \eta_p^2 = .012$.) Second, we compared the SD group separately to the SQ ($M_{SQ} = €19.28$) and LQ ($M_{LQ} = €17.36$) groups. The contrast is marginally significant in the first case ($t(233) = 1.72, p = .087$) and significant in the second ($t(233) = 2.94, p = .004$). Third, we used a polynomial contrast to check for a linear relationship between Spend and Price Promotion. The data reveal a significant linear trend ($F(1, 233) = 9.18, p = .003$), which is consistent with the argument in the literature that the greater the magnitude of a request, the higher the likelihood of experiencing reactance and, therefore, also the intent to restore agency (Rains and Turner 2007). This last result is early indication that the effect of promotional favors on spending can be traced to reactance.

EXPERIMENT 2: THREAT-TO-FREEDOM AND HOSTILE FEELINGS

Experiment 2 replicates the effect of promotional favors on spending shown in the field and, importantly, provides direct evidence of the causal role of reactance. Specifically, we measured threat-to-freedom and hostile feelings and then tested a serial mediation model in which these constructs purportedly explain the phenomenon.

Method

The scenario describes the rental of a car. In particular, 124 MTurk workers (56% female, on average 37 years old) read that the rental agency at destination offers a choice of three types

of car (compact, regular, and premium) and up to eight accessories. The types of car differ on familiar features (e.g., maximum number of passengers, transmission, and navigation system) and price, and the accessories include differently priced options such as 24-hour roadside assistance and a high-speed multi-charger (see Table 2). Following this information, we manipulated one factor, Price Promotion, such that one group faced a standard discount of 40% and the other a promotional favor of 40% "...subject to clients picking up the vehicle from a different location in the city."

Participants indicated their choice of car and accessories, which we then converted into an amount of Spend. They also answered questions addressing threat-to-freedom and hostile feelings. Specifically, participants first rated the extent to which the deal made them feel "like their choices were being taken away," "like they didn't have any freedom," and "trapped" on a 0 ("not at all") to 100 ("a lot") sliding scale (Rains and Turner 2007; Cronbach's $\alpha = .918$). They then responded to two questions assessing feelings of anger and frustration (1 = "not at all" to 7 = "a lot") ($r = .885$), which we also adapted from Rains and Turner (2007).

Lastly, participants evaluated the fairness of the offer (1 = "unfair" to 7 = "fair"). The literature claims that people go to great lengths to obtain and reestablish fairness, especially in the context of pricing decisions (Xia, Monroe, and Cox 2004). Albeit the notions of threat to freedom and fairness are related (Buboltz Jr et al. 2003), we wanted to account for possible differences. In the data, participants in the promotional favor (PF) group rated the offer as less fair than participants in the standard discount (SD) group ($M_{PF} = 5.38$ vs. $M_{SD} = 5.97$; $F(1, 122) = 5.71$, $p = .018$, $\eta_p^2 = .045$), but the results below hold when we controlled for this effect.

Insert Table 2 about here

Results

Table 3 reports summary statistics. Participants in the PF group planned to spend less overall than participants in the SD group: $M_{PF} = \$63.86$ vs. $M_{SD} = \$75.23$; $F(1, 122) = 3.86$, $p = .052$, $\eta_p^2 = .031$. At a more granular level, we observed a marginal effect for the choice of vehicle: $\chi^2(2) = 5.79$, $p = .061$, $V = .213$. For example, a multinomial logistic regression shows that the presence of the promotional favor had a marginal positive impact on the choice of the inexpensive compact car (Wald $\chi^2(1) = 3.60$, $p = .058$), and a significant positive impact on the choice of the middling standard car (Wald $\chi^2(1) = 5.01$, $p = .025$)—both relative to the expensive premium car. In addition, while participants in the PF group selected cheaper accessories than their counterparts in the SD group ($M_{SD} = \$12.28$ vs. $M_{PF} = \$9.25$; $F(1, 122) = 4.07$, $p = .046$, $\eta_p^2 = .032$), we did not find a significant difference in the number chosen ($F(1, 122) = 1.66$, $p = .200$).

 Insert Table 3 about here

Next, a one-way ANOVA reveals a significant effect of Price Promotion on Threat-to-Freedom ($F(1, 121) = 4.41$, $p = .038$, $\eta_p^2 = .035$) and Hostile Feelings ($F(1, 122) = 3.93$, $p = .050$, $\eta_p^2 = .031$). Specifically, participants exposed to the promotional favor perceived the offer as a greater threat to their freedom ($M_{PF} = 18.94$) and experienced more anger and frustration ($M_{PF} = 1.68$) than participants exposed to the standard discount ($M_{SD} = 11.80$ and $M_{SD} = 1.32$, respectively).

Accordingly, we used a serial mediation model (Model 6 of the PROCESS macro; Hayes 2018) to test the causal path: Price Promotion \rightarrow Threat to Freedom \rightarrow Hostile Feelings \rightarrow Spend. This specification follows from the structural models developed by Dillard and Shen

(2005) and Rains and Turner (2007). A bootstrap analysis with 5,000 samples indicates that the full model is significant (indirect effect = $-.044$, $SE = .03$, 95% CI = $-.142$ to $-.007$; Figure 1), while the indirect paths involving only threat to freedom or hostile feelings yield confidence intervals that include zero. At the same time, the opposite path Price Promotion \rightarrow Hostile Feelings \rightarrow Threat to Freedom \rightarrow Spend is not statistically significant (indirect effect = $.005$, $SE = .02$, 95% CI = $-.030$ to $.067$). These results provide the first direct evidence that reactance explains the effect of promotional favors on spending.

 Insert Figure 1 about here

EXPERIMENT 3: FRAMING THE EFFORT DEMANDED OF CONSUMERS

To further test our theory, Experiment 3 employs a manipulation intended to vary the experience of reactance and examines its effect on the link between promotional favors and spending. Specifically, we leveraged an insight expressed by Brehm (1966)—and previously applied by Kivetz (2005), who suggests that a threat to freedom is less aggravating when justified or made legitimate. If promotional favors do provoke reactance, then framing the effort demanded of consumers as more or less legitimate should moderate the downstream effect on spending. Importantly, this manipulation does not affect the actual demand itself, which allows us to draw conclusions about the causal role of reactance independent of the burden placed on consumers.

Method

The scenario describes the purchase of cell phone service. Two hundred and ninety eight participants registered on Prolific (65% female, on average 36 years old) were asked to imagine the purchase of a SIM Only cell phone subscription from a fictitious firm called TTCELL. They were presented with information on three unlimited plans (essential, magenta, and magenta plus), each available on a 12-month contract. Table 4 summarizes this information and the respective prices.

Insert Table 4 about here

The experimental manipulation of Price Promotion comprised a standard discount (SD) group and two promotional favor groups. While all participants learned that TTCELL currently offers a 20% discount on the regular monthly price of any plan, only those in the promotional favor groups further read “All you have to do is, after purchasing your plan and using it for a month, post a review on the broadband consumer review website. Only then will the discount appear on your monthly bill” (adapted from Blanchard et al. 2016).

Importantly, participants exposed to the promotional favor received different explanations for this request. Those in the high-reactance (HR) promotional favor group were told that they recently read an article about discounts offered in exchange for reviews explaining that companies do this “... to drive sales and improve their bottom line. That is, their aim is to profit off their customers.” Conversely, participants in the low-reactance (LR) promotional favor group read that companies offer discounts in exchange for reviews “... to provide customers with as much information, good or bad, from their peers as possible so that they make wise decisions. That is, their aim is to help their customers.” Similar to Kivetz (2005), we reasoned that the

second description frames the promotional favor as more legitimate than does the first description because it portrays TTCELL as more benevolent.

Participants indicated their preferred cell phone plan. They were also asked whether, at the end of the first contract, they would renew the service for a further 12 months. Finally, participants answered the same three questions on threat-to-freedom (Cronbach's $\alpha = .943$) and two questions on hostile feelings ($r = .808$) that we first reported in Experiment 2.

Results

We computed Spend by multiplying the monthly cost of the chosen plan by the number of months under subscriptions (12 or 24, depending on contract renewal). A one-way ANOVA shows a significant effect of Price Promotion on Spend: $F(2, 295) = 4.75, p = .009, \eta_p^2 = .031$ (see Table 5). As expected, spending was significantly lower in the high-reactance promotional favor group ($M_{HR} = \text{£}507.33$) than in the standard discount ($M_{SD} = \text{£}587.27; t(295) = 2.85, p = .005$) and low-reactance promotional favor ($M_{LR} = \text{£}575.51; t(295) = 2.43, p = .016$) groups. Importantly, we did not observe a significant effect between the SD and LR groups ($t(295) = .42, p = .677$). This pattern of results is primarily driven by the likelihood of contract renewal, with shares dropping from 36.7% in the SD group to 26.7% in the HR group (Wald $\chi^2(1) = 5.74, p = .017$). Participants in the LR group reported a similar likelihood (36.7%) than those in the SD group (Wald $\chi^2(1) = .008, p = .931$).

 Insert Table 5 about here

Next, a one-way ANOVA shows a significant effect of Price Promotion on Threat-to-Freedom ($F(2, 295) = 33.53, p < .001, \eta_p^2 = .185$) and Hostile Feelings ($F(2, 295) = 44.18, p < .001, \eta_p^2 = .230$). Specifically, participants in the HR group perceived the offer as a greater threat

to their freedom ($M_{HR} = 41.35$) and experienced more anger and frustration ($M_{HR} = 3.39$) than participants in the SD ($M_{SD} = 13.56$; $t(295) = 7.99$, $p < .001$ and $M_{SD} = 1.63$; $t(295) = 9.25$, $p < .001$, respectively) and LR ($M_{LR} = 22.28$; $t(295) = 5.47$, $p < .001$ and $M_{LR} = 2.24$; $t(295) = 6.03$, $p < .001$, respectively) groups.

We again used Model 6 of the PROCESS macro (Hayes 2018) to test the serial mediation Price Promotion \rightarrow Threat to Freedom \rightarrow Hostile Feelings \rightarrow Spend. Since Price Promotion is a three-level independent variable, PROCESS created two dummy variables: high-reactance promotional favor vs. standard discount (D1) and low-reactance promotional favor vs. standard discount (D2)—where the SD group served as the reference. A bootstrap analysis with 5,000 samples indicates that the relative indirect effect of the high-reactance promotional favor on spending via the mediators is significant (D1 = -49.38, SE = 13.36, 95% CI = -77.519 to -25.699), as is the relative indirect effect of the low-reactance promotional favor (D2 = -15.50, SE = 6.37, 95% CI = -29.365 to -4.725) (see Figure 2). At the same time, the opposite path Price Promotion \rightarrow Hostile Feelings \rightarrow Threat to Freedom \rightarrow Spend is not statistically significant for either dummy variable: D1 relative indirect effect = -10.57, SE = 13.49, 95% CI = -37.170 to 15.943; D2 relative indirect effect = -3.65, SE = 4.93, 95% CI = -14.172 to 5.407. Taken together, these results provide additional evidence that reactance is a plausible explanation for the effect of promotional favors on spending.

 Insert Figure 2 about here

EXPERIMENT 4: TRAIT REACTANCE

Prior research shows that the manifestation of reactance is susceptible to individual differences in the tendency to react. In fact, several scholars claim that exploiting chronic reactance trumps all other means to establish causality (Briley et al. 2018; Chartrand et al. 2007; Fitzsimons and Lehmann 2004). Logically, in our context the expectation is that the effect of promotional favors on spending is stronger (weaker) for consumers with a relatively high (low) propensity to react. This prediction was the focus of Experiment 4.

Method

The scenario describes the decision to join a health club. The sample comprised 73 members (58% female, 87% completed undergraduate education, and on average 26 years old) of a subject pool managed by a business school in the United States. They read that the club offers three memberships (express, lifestyle, and gold) and seven services (e.g., personal training, sauna, and locker rental). The memberships differ in the number of gyms accessible across the network and the blackout periods in a given week. For example, while the express option grants entry only to the home gym and only during off-peak hours and weekends, the gold option is unrestricted. Moreover, each membership can be contracted for one, four, or 12 months at a time. Table 6 summarizes this information and the respective prices.

 Insert Table 6 about here

The experimental manipulation of Price Promotion comprised a standard discount (SD) group, in which participants learned that the club currently advertises new memberships at a 50% discount, and a promotional favor (PF) group, in which participants learned that the same offer is

“...conditional on joining with a second person.” All participants indicated their preferred membership type and duration, and then selected the services and estimated the quantities consumed in a typical month. They also completed the 11-item Hong reactance scale (Hong and Faedda 1996), which uses statements such as “I consider advice from others to be intrusion,” “I resist attempts of others to influence me,” and “I become frustrated when I am unable to make free and independent decision” to measure the degree to which an individual is likely to experience reactance (each captured on a five-point “completely disagree” to “completely agree” scale; Cronbach’s $\alpha = .872$).

Results

Table 7 reports mean scores for the main dependent measures. We computed Spend by summing the expenditures of participants on membership (determined by type and duration) and services (determined by type, quantity, and duration of the membership). An initial ANOVA shows that participants in the PF group intended to spend less overall than participants in the SD group: $M_{PF} = \$648.15$ vs. $M_{SD} = \$1,474.21$; $F(1, 71) = 6.62$, $p = .012$, $\eta_p^2 = .085$.

This result is driven primarily by the (average) duration of the membership, which dropped from 9.05 months among participants in the SD group to 5.74 months among those in the PF group ($F(1, 71) = 11.39$, $p = .001$, $\eta_p^2 = .138$). For example, a multinomial logistic regression shows that tying the demand to the discount had a significant impact on the choice of the single-month contract relative to the yearlong contract, with the corresponding shares shifting from 0.0% and 63.2% in the SD group to 25.7% and 31.4% in the PF group. At the same time, a second regression shows that the promotional favor had a marginally-significant impact on the choice of the inexpensive express membership relative to the expensive gold membership (Wald $\chi^2(1) = 3.10$, $p = .078$), with the corresponding shares shifting from 23.7% and 26.3% in the SD

group to 31.4% and 8.6% in the PF group. Finally, we did not observe a significant difference in the average price ($F(1, 71) = .07, p = .787$) or number ($F(1, 71) = 2.04, p = .157$) of the services chosen in a given month.

 Insert Table 7 about here

Next, we predicted that the negative effect of the promotional favor on spending is moderated by chronic reactance. Accordingly, we regressed Spend on Trait Reactance, Price Promotion, and the corresponding interaction term. Spend comprises membership and services, as explained. Trait Reactance is the mean-centered composite scores from the five-item scale. In the data, the variable ranges from 1 and 4.20, with higher values indicating a greater propensity to react. The raw mean is 2.98. Finally, Price Promotion is the contrast-coded indicator of promotional favor (-1) or standard discount (1).

The regression shows a negative effect of Price Promotion ($\beta = -.31, p = .008$) and a marginally significant interaction ($\beta = -.22, p = .054$). The slope of Trait Reactance is significant and negative among participants in the PF group ($\beta = -.41, p = .014$), but not significant among participants in the SD group ($\beta = .12, p = .469$). Importantly, we conducted a spotlight analysis of the effect of Price Promotion at one standard deviation below and above the mean level of Trait Reactance. While the data show no significant simple effect of Price Promotion among participants with low (one standard deviation below the mean) trait reactance ($\beta = -.09, p = .595$), the effect is significant and negative among participants with high (one standard deviation above the mean) trait reactance ($\beta = -.54, p = .002$). This is consistent with our prediction. Moreover, we used the Johnson-Neyman technique to identify the range of values of Trait Reactance for which the simple effect of Price Promotion is statistically significant (Spiller et al.

2013). We observed that 2.75 (-.24 mean centered) is the point beyond which the inclusion of the promotional favor reduced spending.

EXPERIMENT 5: PROMOTIONAL FAVORS VS. PURCHASE REQUIREMENTS

We argued that the effect of promotional favors on spending traces back to the incongruity between the (non-monetary) effort demanded of consumers and the (monetary) reward for that effort. This characteristic matters in light of prior research indicating that perceptions of incongruity between effort and reward prime external attributions for one's behavior, which in turn threaten one's sense of freedom (Kivetz 2005). Accordingly, this experiment contrasts a standard discount, a promotional favor, and a purchase requirement—where the two conditional discounts serve as the manipulation of incongruity. We predict that a promotional favor provokes greater reactance and, consequently, has a greater negative impact on consumers than does a purchase requirement, as the latter is expressed in the same resource as the discount (i.e., money).

Method

The scenario describes a purchase at the local grocery store. We asked 300 MTurk workers (55% female, on average 38 years old) to consider a specific brand of chips subject to one of three Price Promotion conditions. Participants assigned to the standard discount (SD) group read that the chips are currently 25% off the regular price. Meanwhile, participants in the purchase requirement (PR) and promotional favor (PF) groups read that the chips are currently 25% off the regular price only if you “buy two or more cans” or “complete a market survey before checkout,” respectively.

Following this information, participants indicated their attitude toward the grocery store on four seven-point scales (1 = “dislike/negative/unfavorable/bad” to 7 = “like/positive/favorable/good;” Cronbach’s $\alpha = .961$), and answered the question “How much do you want to visit this grocery store for your next grocery shopping?” (1 = “not at all” to 7 = “very much”). Note that we did not measure spending on this occasion because the purchase requirement demands a larger purchase in exchange for the discount. Clearly this is not the case for the promotional favor, and therefore any comparison between the PR and PF groups on the basis of spending is skewed.

Participants also reported the extent to which “completing a market survey consistent (i.e., congruent) with receiving a discount in return” (1 = “not at all” to 7 = “extremely”). This is the manipulation check for perceived incongruity. Finally, we asked participants to answer the question “Sometimes offers have additional costs, requiring consumers to hand over something of value in order to avail themselves of the discount. How costly is the offer by this grocer?” (1 = “not at all costly” to 7 = “extremely costly”) to gauge the underlying effort associated with each offer. If we find that participants reacted differently to the promotional favor and the purchase requirement, yet the two requests appear equally costly, then the experiment provides additional evidence that the effect is due to the nature of promotion favors, not the mere presence of a demand.

Results

Consistent with our intent, we found that the promotional favor appeared less consistent (i.e., more incongruent) with a discount offer than the purchase requirement: $M_{PF} = 4.78$ vs. $M_{PR} = 5.38$; $F(1, 199) = 6.98$, $p = .009$, $\eta_p^2 = .034$. At the same time, a one-way ANOVA with Perceived Cost as the dependent variable shows a significant effect of Price Promotion: $F(2, 297)$

= 10.55, $p < .001$, $\eta_p^2 = .066$. As expected, participants in the SD group perceived the offer to be less costly ($M_{SD} = 2.43$) than their counterparts in the PR ($M_{PR} = 3.27$; $t(297) = -3.71$, $p < .001$) and PF ($M_{SD} = 3.39$; $t(297) = -4.21$, $p < .001$) groups. Importantly, we did not observe a significant difference between the responses of participants in the PR and PF groups ($t(297) = -.528$, $p = .598$), which suggests that any eventual effect of the promotional favor on store attitude or repeat visit cannot be traced to the mere presence of a (costly) demand.

Next, a one-way ANOVA with Store Attitude as the dependent variable and Price Promotion as the independent variable shows a significant effect: $F(2, 297) = 5.36$, $p = .005$, $\eta_p^2 = .035$. As expected, participants in the PF group ($M_{PF} = 5.19$) rated the grocery store more poorly than their counterparts in the PR ($M_{PR} = 5.57$; $t(297) = 2.17$, $p = .031$) or SD ($M_{SD} = 5.75$; $t(297) = 3.21$, $p = .001$) group. However, we did not observe a significant difference in the responses of participants in the PR and SD groups ($t(297) = 1.06$, $p = .290$).

Similarly, a one-way ANOVA with Repeat Visit as the dependent variable shows a significant effect of Price Promotion: $F(2, 297) = 6.98$, $p = .001$, $\eta_p^2 = .045$. While participants were less likely to return to the store when presented with a promotional favor ($M_{PF} = 5.73$) than a purchase requirement ($M_{PR} = 6.12$; $t(297) = 2.16$, $p = .031$) or standard discount ($M_{SD} = 6.40$; $t(297) = 3.72$, $p < .001$), there is no significant difference between the last two groups ($t(297) = 1.59$, $p = .114$).⁴

⁴ We ran separate ANCOVAs on Store Attitude and Repeat Visit with Perceived Cost as a covariate and found that the effect of Price Promotion is still significant in the first ($F(2, 296) = 3.22$, $p = .041$, $\eta_p^2 = .021$) and second ($F(2, 296) = 4.53$, $p = .012$, $\eta_p^2 = .030$) case.

DISCUSSION

A common ploy among firms that use price promotions is to tie the receipt of the saving by consumers to some action on their part that is non-monetary in nature. While most prior research indicates that any type of conditional discount, including promotional favors, helps businesses separate those in the market who are motivated by low prices from those who are not, the broad message in this paper is different: promotional favors also aggravate consumers and, therefore, they can create the motivation to spend less.

The basis for this idea is a theory of reactance. Across five experiments, we found consistent evidence that consumers choose cheaper or fewer options in response to a promotional favor than they do in response to a standard discount. We also used different means to demonstrate the causal role of reactance, addressed the possibility that promotional favors are simply less desirable than standard discounts, and drew a comparison between a promotional favor and conventional, monetary purchase requirement.

Overall, these findings make at least three contributions to marketing research. First, we help to bridge the gap between the frequent use of promotional favors among firms and the limited interest in the topic among academics. To our knowledge, our work is only the third effort after Blanchard et al. (2016) and Dallas and Morwitz (2018) to discuss promotional favors, and indeed the first to show that the tactic (a) impacts behavior beyond purchase incidence, and (b) does so to the detriment of the firm. More broadly, our research is only the second after that by Kristofferson et al. (2016) to consider the downside of conditional discounts in general.

Second and third, we add to a growing body of work that studies cases of behavioral backlash and, in particular, to research that promotes reactance as the underlying mechanism.

The motivation to study promotional favors from this perspective came from two sources. Inman et al. (1997) suggested that price promotions can curtail the freedom of consumers to attain market offerings, yet pursued a different theoretical approach. At the same time, businesses are turning to promotional favors in response to the rise of digitalization in marketing. They are also turning to promotional favors because they appear more discreet than, say, demanding that consumers purchase a minimum quantity. We found this contrast interesting and worth exploring.

In terms of contributions to marketing practice, the first point to stress is that behaviors stemming from reactance arousal are generally not conservative, in the sense that individuals often over-react in their effort to redeem control (Clee and Wicklund 1980). The results of our experiments merit attention for this reason and, in particular, if we believe that a business may not sense that promotional favors lead to episodes of reactance or carry consequences beyond a consumer's initial decision to accept or reject the offer.

The second point is that a firm is likely to judge promotional favors, or any sales promotion for that matter, by weighing the benefit of imposing a demand on consumers against the loss from those who decide not to bother and opt out. It turns out that the impact of the tactic is more nuanced than calibrating how much to squeeze consumers before losing their interest. Depending on the specific case and context, the effect that we report may or may not be sufficient to tip the scale against the use of promotional favors. Irrespective, the message is that businesses should exercise care.

The third point to stress is that businesses can take steps to benefit from promotional favors while minimizing the downside. In Experiment 3, we manipulated one factor, the framing of the effort demanded of consumers, that mitigates the subjective experience of reactance. Two

alternatives may be to vary the magnitude of the restriction or, conversely, the saving offered to consumers (while holding the other variable constant). Future research could test these interventions. It could also test whether giving consumers a choice between a standard discount and a promotional favor of equal worth alleviates the sensation that freedom is threatened.

Still on the subject of future research, a different direction is to take a step back and check the theoretical principles of reactance. For example, there is disagreement in the literature as to whether reactance relates to conscious awareness that someone or something restricts a personal freedom (Brehm and Brehm 1981; Laurin et al. 2013), or it arises in subtle ways and acts automatically (Chartrand et al. 2007; Wellman and Geers 2009). When asked, the participants in our experiments acknowledged that their freedom was threatened. However, we are not clear that they were wilfully acting out against the firm. Our view is that these two statements are compatible, especially in a context such as ours where the restoration of freedom is indirect: it is possible for consumers to recognize the presence of a threat but not be mindful that it provokes a response later in the purchase process. Nonetheless, future research could address this debate and clarify whether it actually matters for the relationship between promotional favors and spending behavior.

Similarly, scholars argue that reactance is possible only if individuals expect a certain freedom to begin with (Miron and Brehm 2006). We have not tackled this question. There are likely to be situations where the reputation of a firm, or the general practice in an industry, sets expectations for a freedom (or lack thereof). First, a business known for competing on price and tight operating margins may elicit less reactance from promotional favors than a business known for its quality and profits. Second, the fact that most firms in a sector already use promotional favors, and perhaps have for some time, may make consumers more tolerant. That is, it is

possible that norms establish over time and what appeared restrictive in the past is now entirely acceptable.

Finally, a third approach to future research is to explore other meaningful manifestations of reactance. We focused on spending behavior because of its significance to practice, but in Experiment 5 we also observed an effect on store attitude and loyalty. As such, it may well be that promotional favors also sway brand perceptions, recommendations, word of mouth, and other desirable outcomes. Thus, it seems appropriate to gain a richer understanding of the breadth of the phenomenon, and whether it is something likely to persist over time.

REFERENCES

- Ailawadi, Kusum L., Karen Gedenk, Tobias Langer, Yu Ma, and Scott A. Neslin (2014), "Consumer Response to Uncertain Promotions: An Empirical Analysis of Conditional Rebates," *International Journal of Research in Marketing*, 31 (1), 94–106.
- Blanchard, Simon J., Kurt A. Carlson, and Jamie D. Hyodo (2016), "The Favor Request Effect: Requesting a Favor from Consumers to Seal the Deal," *Journal of Consumer Research*, 42 (6), 985–1001.
- Brehm, Jack W. (1966), *A Theory of Psychological Reactance*, New York: Academic Press.
- Brehm, Sharon S. and Jack W. Brehm (1981), *Psychological Reactance: A Theory of Freedom and Control*, New York: Academic Press.
- Briley, Donnel A., Shai Danziger, and En Li (2018), "Promotional Games: Trick or Treat?" *Journal of Consumer Psychology*, 28 (1), 99–114.
- Buboltz Jr, Walter, David J. Williams, Adrian Thomas, Eric A. Seemann, Barlow Soper, and Kevin Woller (2003), "Psychological Reactance: Expanding the Nomological Net," *Personality and Individual Differences*, 34 (7), 1167–77.
- Bushman, Brad J. and Angela D. Stack (1996), "Forbidden Fruit versus Tainted Fruit: Effects of Warning Labels on Attraction to Television Violence," *Journal of Experimental Psychology: Applied*, 2 (3), 207–26.
- Chartrand, Tanya L., Amy N. Dalton, and Gavan J. Fitzsimons (2007), "Nonconscious Relationship Reactance: When Significant Others Prime Opposing Goals," *Journal of Experimental Social Psychology*, 43 (5), 719–26.
- Chen, Yuxin, Sridhar Moorthy, and Z. John Zhang (2005), "Price Discrimination after the

- Purchase: Rebates as State-Dependent Discounts,” *Management Science*, 51 (7), 1131–40.
- Clee, Mona A. and Robert A. Wicklund (1980), “Consumer Behavior and Psychological Reactance,” *Journal of Consumer Research*, 6 (4), 389–405.
- Dallas, Steven K. and Vicki G. Morwitz (2018), “There Ain’t No Such Thing as a Free Lunch: Coconsumers’ Reactions to Pseudo-Free Offers,” *Journal of Marketing Research*, 55 (6), 900–15.
- Dholakia, Utpal M. (2006), “How Customer Self-Determination Influences Relational Marketing Outcomes: Evidence from Longitudinal Experiments,” *Journal of Marketing Research*, 43 (1), 109–20.
- Dillard, James P. and Eugenia Peck (2001), “Persuasion and the Structure of Affect: Dual Systems and Discrete Emotions as Complementary Models,” *Human Communication Research*, 27 (1), 38–68.
- _____ and Lijiang Shen (2005), “On the Nature of Reactance and Its Role in Persuasive Health Communication,” *Communication Monographs*, 72 (2), 144–68.
- Fitzsimons, Gavan J. (2000), “Consumer Response to Stockouts,” *Journal of Consumer Research*, 27 (2), 249–66.
- _____ and Donald R. Lehmann (2004), “Reactance to Recommendations: When Unsolicited Advice Yields Contrary Responses,” *Marketing Science* 23 (1), 82–94.
- Goldsmith, Kelly and On Amir (2010), “Can Uncertainty Improve Promotions?” *Journal of Marketing Research*, 47 (6), 1070–7.
- Grewal, Dhruv, Kusum L. Ailawadi, Dinesh Gauri, Kevin Hall, Praveen Kopalle, Jane R. Robertson (2011), “Innovations in Retail Pricing and Promotions,” *Journal of Retailing*,

87S (1), S43–52.

- Hair, Jr., Joseph F., William C. Black, Barry J. Babin, and Rolph E. Anderson (2009), *Multivariate Data Analysis*, 7th edition, Harlow: Pearson.
- Hayes, Andrew F. (2018), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, 2nd edition, New York: Guilford Press.
- Hong, Sung-Mook and Salvatora Faedda (1996), “Refinement of the Hong Psychological Reactance Scale,” *Educational and Psychological Measurement*, 56 (1), 173–82.
- Huang Qingyi, Vincent R. Nijs, Karsten Hansen, and Eric T. Anderson (2012), “Wal-Mart’s Impact on Supplier Profits,” *Journal of Marketing Research*, 49 (2), 131–43.
- Inman, J. Jeffrey, Anil C. Peter, and Priya Raghuram (1997), “Framing the Deal: The Role of Restrictions in Accentuating Deal Value,” *Journal of Consumer Research*, 24 (1), 68–79.
- Kivetz, Ran (2005), “Promotion Reactance: The Role of Effort-Reward Congruity,” *Journal of Consumer Research*, 31 (4), 725–36.
- Kristofferson, Kirk, Brent McFerran, Andrea C. Morales, and Darren W. Dahl (2016), “The Dark Side of Scarcity Promotions: How Exposure to Limited-Quantity Promotions Can Induce Aggression,” *Journal of Consumer Research*, 43 (5), 683–706.
- Laran, Juliano, Amy N. Dalton, and Eduardo B. Andrade (2011), “The Curious Case of Behavioral Backlash: Why Brands Produce Priming Effects and Slogans Produce Reverse Priming Effects,” *Journal of Consumer Research*, 37 (6), 999–1014.
- Laurin, Kristin, Aaron C. Kay, Devon Proudfoot, and Gavan J. Fitzsimons (2013), “Response to Restrictive Policies: Reconciling System Justification and Psychological Reactance,” *Organizational Behavior and Human Decision Processes*, 122 (2), 152–62.
- Lee, Leonard and Dan Ariely (2006), “Shopping Goals, Goal Concreteness, and Conditional

- Promotions,” *Journal of Consumer Research*, 33 (1), 60–70.
- Lichtenstein, Donald R., Nancy M. Ridgway, and Richard G. Netemeyer (1993), “Price Perceptions and Consumer Shopping Behavior: A Field Experiment,” *Journal of Marketing Research*, 30 (2), 234–45.
- Lu, Qiang and Sridhar Moorthy (2007), “Coupons versus Rebates,” *Marketing Science*, 26 (1), 67–82.
- Miron, Anca M. and Jack W. Brehm (2006), “Reactance Theory—40 Years Later,” *Zeitschrift für Sozialpsychologie*, 37 (1), 9–18.
- Rains, Stephen A. and Monique Mitchell Turner (2007), “Psychological Reactance and Persuasive Health Communication: A Test and Extension of the Intertwined Model,” *Human Communication Research*, 33 (2), 241–69.
- Rubin, Donald B. (2006), *Matched Sampling for Causal Effects*, New York: Cambridge University Press.
- Rubin, Jeffrey (1986), “The Emotion of Anger: Some Conceptual and Theoretical Issues,” *Professional Psychology: Research and Practice*, 17 (2), 115–24.
- Spiller, Stephen A., Gavan J. Fitzsimons, John G. Lynch Jr, and Gary McClelland (2013), “Spotlights, Floodlights, and the Magic Number Zero: Simple Effects Tests in Moderated Regression,” *Journal of Marketing Research*, 50 (2), 277–88.
- Wansink, Brian, Robert J. Kent, and Stephen J. Hoch (1998), “An Anchoring and Adjustment Model of Purchase Quantity Decisions,” *Journal of Marketing Research*, 35 (1), 71–81.
- Wellman, Justin A., and Andrew L. Geers (2009), “Rebel Without a (Conscious) Cause: Priming a Nonconscious Goal for Psychological Reactance,” *Basic and Applied Social Psychology*, 31 (1), 9–16.

Wicklund, Robert A., Valerie Slattum, and Ellen Solomon (1970), "Effects of Implied Pressure toward Commitment on Ratings of Choice Alternatives," *Journal of Experimental Social Psychology*, 6 (4), 449–57.

Xia, Lan, Kent B. Monroe, Jennifer L. Cox. (2004), "The Price Is Unfair! A Conceptual Framework of Price Fairness Perceptions," *Journal of Marketing*, 68 (4), 1–15.

TABLE 1

Experiment 1: Participation and Mean Scores for Selected Measures.

	Price Promotion			
	Regular Prices	Standard Discount	Short Questionnaire	Long Questionnaire
Patrons, Store 1	50	49	47	50
Patrons, Store 2	50	50	48	49
Opted Out, Flyer		2	4	4
Opted Out, Booth		9	15	23
Spend (€)	16.28	21.01	19.28	17.36
Products (Units)	8.95	11.18	10.37	9.71
Time (Minutes)		15.48	13.87	16.13

TABLE 2

Experiment 2: Types of Car and Extras.

	Type of Car		
	Compact	Standard	Premium
Price (Day)	\$35.69	\$46.18	\$53.20
Air Conditioning	Yes	Yes	Yes
Number of Adult Passengers	4	5	5
Transmission	Manual	Manual, Automatic	Manual, Automatic
AM/FM stereo	Yes	Yes	Yes
CD Player		Yes	Yes
Electric Windows		Yes	Yes
Navigation System			Yes
Premium Audio System			Yes
Extras:			
High-Speed Multi-Charger		\$4.00	
Radar Detector		\$8.00	
GPS Audio Tour		\$10.00	
24-Roadside Assistance		\$12.50	
Advanced First Aid Kit		\$17.00	
7-Inch Portable DVD Player		\$34.99	
Mobile Hotspot (5GB)		\$59.00	
Roof Rack		\$70.00	

TABLE 3

Experiment 2: Mean Scores for Selected Measures.

	Price Promotion	
	Standard Discount	Promotional Favor
Spend (\$)	75.23	63.86
Spend on Rental (\$)	44.94	43.71
Choice of Compact Car (%)	25.40	27.70
Choice of Standard Car (%)	54.20	66.20
Choice of Premium Car (%)	20.30	6.20
Extras (\$/Unit)	12.28	9.25
Extras (Units)	1.90	1.63

TABLE 4

Experiment 3: Cell Phone Plans.

	Type of Plan		
	Essential	Magenta	Magenta Plus
Price (Month)	£25	£30	£35
Unlimited Talk, Text, and Data	Yes	Yes	Yes
4G LTE Speeds	Yes	Yes	Yes
Mobile Hotspot Data	No	Yes	Yes
Netflix Subscription	No	Yes	Yes
HD Video Streaming	No	No	Yes
Unlimited International Data and Text	Text Only	Yes	Yes
In-flight Wi-Fi	No	No	Yes
Voicemail to Text	No	No	Yes

TABLE 5

Experiment 3: Mean Scores for Selected Measures.

	Price Promotion		
	Standard Discount	High-Reactance Promotional Favor	Low-Reactance Promotional Favor
Spend (£)	587.27	507.33	575.51
Choice of Essential Plan (%)	23.08	37.18	39.74
Choice of Magenta Plan (%)	33.79	37.24	28.97
Choice of Magenta Plus Plan (%)	42.67	24.00	33.33
Renewal (%)	36.65	26.70	36.65

TABLE 6

Experiment 4: Health Club Memberships and Services.

	Membership		
	Express	Lifestyle	Gold
Price (Month), Monthly Contract	\$37.99	\$47.99	\$57.99
Price (Month), Four-Month Contract	\$32.99	\$42.99	\$52.99
Price (Month), Yearly Contract	\$27.99	\$37.99	\$47.99
Services:			
Personal Training	\$50.00/Session		
Advanced Fitness Class	\$10.00/Class		
Massage	\$24.99/Half Hour		
Sauna	\$9.99/Day		
Indoor Squash	\$15.00/Half Hour		
Wireless Internet	\$7.00/Day		
Locker Rental	\$12.99/Month		

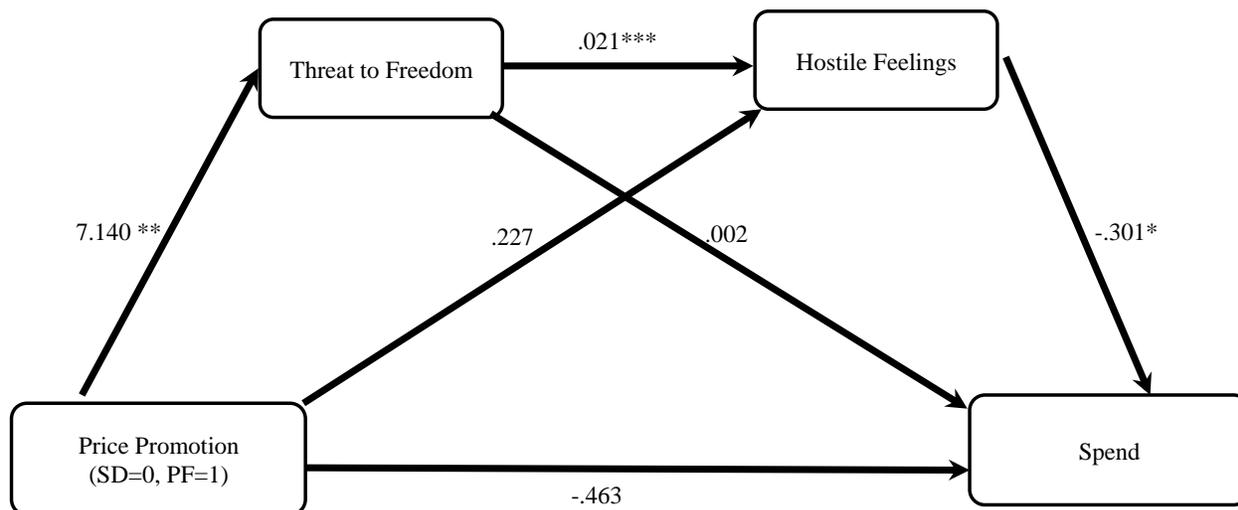
TABLE 7

Experiment 4: Mean Scores for Selected Measures.

	Price Promotion	
	Standard Discount	Promotional Favor
Spend (\$)	1,474.21	648.15
Spend on Membership (\$)	358.65	219.03
Choice of Express Membership (%)	23.68	31.43
Choice of Lifestyle Membership (%)	50.00	60.00
Choice of Gold Membership (%)	26.32	8.57
Contract Length (Months)	9.05	5.74
Services (\$/Unit)	14.83	14.06
Services (Units)	7.84	4.09

FIGURE 1

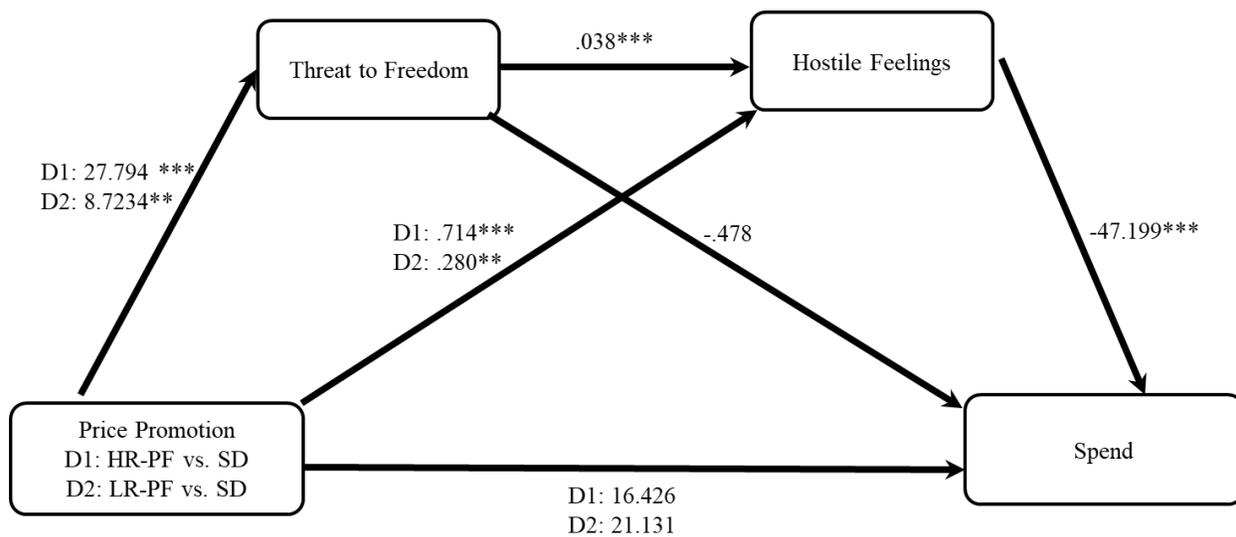
Experiment 2: The Mediating Effect of Threat-to-Freedom and Hostile Feelings.



*** $p < .01$; ** $p < .05$; * $p < .10$

FIGURE 2

Experiment 3: The Mediating Effect of Threat-to-Freedom and Hostile Feelings.



*** $p < .01$; ** $p < .05$; * $p < .10$