Lucky Loyalty: The Effect of Consumer Effort on Predictions of Randomly-Determined
Marketing Outcomes

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Abstract

This research explores how loyal customers, those who have invested relatively high amounts of
effort with a firm in the form of past purchases, respond to randomly-determined marketing
outcomes (e.g., winning a prize in a random drawing). Across five studies, participants exhibit a
"lucky loyalty" effect, in which they believe that greater effort (e.g., dollars spent at a retailer or
number of nights stayed at a hotel) results in greater likelihood of obtaining randomly-
determined promotional outcomes. Loyal customers report these higher subjective likelihoods
for randomly-determined outcomes because they feel they deserve special treatment from the
firm. Theoretically, this work demonstrates that individuals appear to believe that they can earn
"unearnable" outcomes through effort, even when the effort and outcome are unrelated.
Boundary conditions for the lucky loyalty effect are presented, and the implications of the
findings are discussed along with opportunities for future research.

A variety of companies, from hotels and airlines to different types of retailers (e.g., Macy's, CVS, Kroger), have loyalty programs that offer customers discounts and other rewards in exchange for repeat business (Tate 2013). Managers recognize the importance of loyalty; half of the retailers polled in a recent survey by the National Retail Federation cited loyalty programs as a key part of their strategy for 2012 (Grant 2012). Given their ubiquity and perceived importance, it is not surprising that a great deal of both academic research (e.g., Bagchi and Li 2011; Dréze and Nunes 2009; Kivetz 2003, 2005; Kivetz and Simonson 2002, 2003; Kivetz, Urminsky, and Zheng 2006; Lewis 2004) and practitioner interest (e.g., Jargon 2010; Meyer-Waarden and Benavent 2006; Starvish 2011) has focused on understanding the types of rewards and structural features of loyalty programs that are most effective at fostering customer loyalty. Despite the increasing sophistication of many loyalty programs, the key idea behind them remains simple: Reward customers for the effort they have expended in making past purchases with the firm in order to encourage future purchases.

In this research, we conceptualize loyalty as effort in the form of a customer's past purchases with a firm, and we explore how customers who have invested more effort with a given firm (e.g., spent more money on a particular retail outlet's credit card, stayed more nights at a particular hotel chain's properties, etc.) respond differently to that firm's promotions compared to consumers who have invested little or no effort with the firm. Specifically, we address differences with respect to promotions involving a random element (e.g., winning a sweepstakes or other promotional contest or receiving a specific discount from a "scratch and save" card). We propose that customers who have been more loyal to a firm believe they are more likely to receive randomly-determined promotional outcomes from the firm (i.e., that they are "luckier") compared to customers who have put in little to no effort with the firm in the form of past purchases. We capture a sense of feeling "lucky" by assessing subjective probabilities regarding how likely a particular outcome is to occur, and we term this outcome the "lucky loyalty" effect. Across five studies, we find that loyal consumers report higher subjective likelihoods for randomly-determined promotional outcomes because they feel they have earned special treatment from the firm to which they have been loyal. We also present boundary conditions for the lucky loyalty effect, demonstrating that (1) the lucky loyalty effect does not extend to outcomes outside of the firm's control, and (2) loyal consumers do not feel luckier than other consumers who have also invested high amounts of effort with the firm. These boundary conditions highlight the role of deservingness in creating the lucky loyalty effect.

THEORETICAL BACKGROUND

The Lucky Loyalty Effect

Consumers know that there are benefits that come with loyalty. People have experience in the marketplace that firms treat loyal customers (i.e., those who have put in more effort) better than they treat "regular" customers (Kivetz 2003; Kivetz and Simonson 2002). For example, frequent travelers can earn a free night's stay after staying at a hotel chain for a certain number of nights and may receive other benefits, like a free hotel room upgrade or access to exclusive parts of the hotel. Prior research has examined the role of consumer effort (and often the accompanying status associated with high levels of effort) in loyalty programs (Kivetz 2003; Kivetz and Simonson 2002; Nunes and Dréze 2006). For example, Dréze and Nunes (2009) show that hierarchies within a loyalty program enhance consumer satisfaction by distinguishing

customers based upon their prior level of patronage, while Henderson, Beck, and Palmatier (2011) suggest that increased prior effort can lead to enhanced loyalty. Kivetz and Simonson (2002) show that more effort exerted leads to greater preferences for luxury rewards, and Kivetz (2003) empirically demonstrates the effects of higher effort (and of effort vs. no effort) on consumers' expectations of greater rewards.

Consistent with this past research, the association between expending effort with a firm through past purchases and receiving rewards is so strong that consumers' reaction to *unearned* special treatment can be negative (even when they are receiving a desirable perk like a free upgrade; Jiang, Hoegg, and Dahl 2013). It is therefore unsurprising that increased effort with a firm leads to an increased sense that one deserves special treatment from that firm and hence to perceptions that one is more likely than other customers to receive promotional outcomes that are determined by past patronage. In this research, we explore how these perceptions might extend to outcomes that are *not* tied to one's past purchases and are, instead, randomly-determined.

There is considerable evidence that consistency between one's actions and outcomes leads to a sense of deservingness (e.g., Feather, McKee, and Bekker 2011). In other words, experience with being rewarded for prior effort creates an expectation that future efforts should be compensated. This relationship is central to equity theory, which describes the belief that one's inputs should be commensurate with outputs received (Adams 1965). Additionally, a large body of literature based on the notion of dual entitlement and fairness in outcomes (e.g., Haws and Bearden 2006; Van den Bos et al. 1997) suggests that customers have expectations in the marketplace that they are entitled to fair treatment by firms, leading to a feeling of deservingness. Consequently, when consumers are asked to judge how likely they are to receive a reward, it is natural for them to use effort as a judgmental criterion, given that effort would generally impact their expectations of treatment by the firm in keeping with dual entitlement principles; as the amount of effort consumers perceive themselves to have invested increases, so too will their expectations of recompense increase.

Accordingly, we propose that greater feelings of deservingness (as a result of effort) should translate into a belief on the part of loyal customers that they are more likely to receive rewards than other customers, independent of how the recipients of said rewards are determined (i.e., randomly or based on past effort). For example, we would predict that a customer who has invested a high level of effort with a particular hotel chain through her past purchases might judge correctly that she is more likely than other customers to be upgraded to a nicer room when she checks in, but might incorrectly judge that she is also more likely to win a drawing for a free gift basket from the hotel that is open to all hotel guests regardless of their past loyalty to the firm. In other words, our central prediction is that loyal customers who have invested effort with a firm feel that they deserve a reward and therefore believe they are more likely to receive rewards from the firm, even when the rewards in question are actually randomly-determined and not tied to effort.

Boundary Conditions for the Lucky Loyalty Effect

Given that we have proposed that the lucky loyalty effect is driven by a firm's loyal customers feeling that they deserve special treatment from the firm with which they have invested effort, this causal linkage suggests two key boundary conditions for the effect. First, the lucky loyalty effect should not obtain for random events with no connection to the firm with which loyal customers have invested effort because consumers would not feel deserving of

special treatment from entities with which they have not invested prior effort, consistent with research on the antecedents of deservingness (Feather et al. 2011). As such, we predict that rather than a general feeling of luckiness that might be associated with, for example, lucky numbers or possessions (e.g., Darke and Freedman 1997; DeMarree, Wheeler, and Petty 2005; Goodman and Irwin 2006; Hamerman and Johar 2013; Jiang, Cho, and Adaval 2009; Kramer and Block 2008), the lucky loyalty effect is restricted to random outcomes offered by the company with which the consumer has put in effort.

Second, the lucky loyalty effect is contingent on the group to which a high-effort consumer compares his or her self. Consumers who have invested a significant amount of effort with a given firm will expect greater perks than the "average" consumer but not relative to other consumers who have also invested a similarly high level of effort to their own. Therefore, while we predict that high-effort consumers will report subjective likelihoods consistent with a lucky loyalty effect relative to other customers in general, the effect should be attenuated when consumers are asked to explicitly compare their subjective likelihoods to others who have invested the same amount of (high) effort and who would therefore be deserving of the same special treatment they are.

OVERVIEW OF STUDIES

We test our predictions across five studies that explore different types of effort and different types of randomly-determined outcomes. Study 1 tests the basic lucky loyalty effect in the context of a hotel stay by manipulating whether participants are elite members of the hotel's loyalty program versus non-members of the loyalty program and eliciting subjective likelihoods of winning a gift basket in a random drawing. Study 1 thus provides evidence that (1) loyalty program members who have invested substantial amounts of effort with the firm think they are more likely to receive randomly-determined promotional outcomes than non-loyalty program members who have not invested effort with the firm and (2) that this "lucky loyalty" effect is mediated by a sense of having earned special treatment from the firm.

Study 2 uses the context of dollars spent at a retail clothing store and provides evidence for the critical role of effort in the lucky loyalty effect by manipulating whether the consumer had to exert effort (by making purchases with the firm) in order to obtain elite status within a loyalty program. The results demonstrated that the lucky loyalty effect does not obtain when status is endowed (versus earned). Study 2 also tests alternative psychological mechanisms for why consumers who have invested effort with a firm feel that they are more likely to obtain random promotional outcomes, including loyal customers: (1) experiencing an increased sense of generalized luck unconnected to the firm with which they have invested effort, (2) believing that they can somehow control random outcomes (as illusory control accounts might suggest; Langer 1975, 1977), and (3) having an enhanced belief in a just world (not focused specifically on inputs and outputs related to the firm offering the random outcome; Lipkus 1991; Olson et al.2006; Wilson and Darke 2012).

Next, a field study (study 3) demonstrates the robustness of the lucky loyalty effect beyond the lab and extends study 2 by distinguishing between the causal role of objective effort and perceived, subjective effort. Finally, in studies 4 and 5, we demonstrate boundary conditions to the lucky loyalty effect. Specifically, in study 4, we show that the lucky loyalty effect does not extend to randomly-determined outcomes unconnected to the firm with which a loyal consumer has invested effort, and we provide additional evidence that loyalty does not result in a

generalized sense of luck. Study 5 demonstrates that the lucky loyalty effect does not obtain when participants are asked how likely they are to obtain random promotional outcomes relative to other customers who have also invested high amounts of effort with the firm.

STUDY 1

The primary purpose of study 1 is to establish the lucky loyalty effect by assessing whether consumers who have frequently stayed at a hotel chain in the past feel they are more likely to win a random drawing than those who have not invested such past effort. We use the context of a loyalty program and the designation of "elite status" to indicate significant previous patronage and distinguish high effort consumers from non-members of the loyalty program who have not invested prior effort with the firm.

Participants and Procedure

A total of 197 undergraduate students participated in this study for course credit. All participants were asked to imagine checking into a 500-room hotel for a two night stay. Participants in the high effort condition were asked to imagine that they "frequently stay at this chain of hotels while traveling and are an elite member of their loyalty club. However, this is the first time you have ever stayed at this particular hotel." Participants in the no effort condition were instead asked to imagine that "this is the first time that you have ever stayed in this particular chain of hotels." All participants then read the following statement: "Upon arrival, you see a notice posted that there is a daily random drawing for one guest room to receive a special gift basket containing cheese, crackers, fruit, wine, and other gourmet foods. Each guest is automatically entered into the random drawing for this prize." Note that the drawing was open to all guests.

Participants were then asked to indicate how likely they thought they were to win the gift basket on a one ("strongly disagree") to seven ("strongly agree") scale: "I am more likely to win the gift basket than other guests." Given our prediction that loyalty program members who have put in significant amount of effort with the hotel chain in the form of past purchases think they are luckier than others because they deserve special treatment, we also asked participants to respond to the following statement on the same seven-point scale: "I have earned special treatment from this hotel." Finally, as a manipulation check, all participants rated their loyalty to the hotel chain: "I am loyal to this hotel company."

Results and Discussion

Manipulation Check. We conducted a 2 (prior effort: yes vs. no) between-subjects ANOVA with participants' rating of their loyalty to the hotel chain as the dependent variable. Participants reported that they were more loyal to the hotel company in the high effort condition ($M = 4.76$) than in the no effort condition ($M = 3.70$; $F(1, 194) = 35.54$, $p < .001$).

Perceptions of Luck. We conducted the same ANOVA with predicted likelihood of winning the random drawing as the dependent variable. The results revealed that high effort consumers (with elite loyalty status) thought they were more likely than other guests to win the

drawing compared to no effort consumers (2.91 vs. 2.39; $F(1, 196) = 7.27$, $p < .01$, $d = .38$), supporting our prediction of a lucky loyalty effect.

We next subjected participants' ratings of the extent to which they felt that they had earned special treatment from the hotel to the same analysis and found that high effort consumers ($M = 4.34$) felt that they had earned special treatment to a greater extent than did no effort consumers ($M = 3.96$; $F(1, 196) = 4.78$, $p < .05$, $d = .31$). Next, to determine whether the perception that one has earned special treatment from the firm mediated the effect of effort on predicted likelihood of winning the gift basket, we conducted a bias-corrected mediation analysis (Zhao, Lynch, and Chen 2010) using PROCESS Model 4 (Hayes 2012). The mean indirect effect was positive (a x $b = .0522$) with a 95% confidence interval excluding zero (.0069 to .1172), indicating significant mediation.

Discussion. Study 1 provides preliminary evidence in support of the lucky loyalty effect and the underlying deservingness mechanism. However, although we manipulated effort using an externally valid context, we note that loyalty program status and prior effort were confounded in this study (as is typically the case in the real world). Because status is primarily an indicator of effort within a loyalty program, we do not expect status alone to influence participants' subjective likelihoods of receiving randomly-determined promotional outcomes from a firm. Although endowed progress has been shown to impact behaviors in the context of loyalty programs, such as the rate of consumption (Kivetz, Urminsky, and Zheng 2006; Nunes and Dréze 2006; Zhang and Huang 2010), we propose that past effort (and not status endowed without effort) is required to produce the effect. Thus, we predict that endowed status will not result in the lucky loyalty effect. Effort, on the other hand, should result in a lucky loyalty effect even without a designation of elite status, since it is loyalty (i.e., effort in the form of past patronage) that customers link with special treatment. We test these predictions in study 2.

STUDY 2

In addition to testing for the lucky loyalty effect, study 2 manipulates both status and effort, resulting in a 2 (elite status: yes vs. no) x 2 (effort investment: yes vs. no) between-subjects design.

Participants and Procedure

A total of 222 undergraduate students participated in this study for course credit. All participants were asked to imagine that a clothing retailer with which they held a store credit card sends out discount coupons to cardholders once every six months. Specifically, all participants read the following:

> "At the end of each six month period the company sends out a special discount card to all holders of its credit cards. (Everyone with a credit card receives a discount card whether they have used their credit card during that period or not.) These cards provide additional discounts off any purchase for anywhere from 5% to 30%, in each 5% increment (that is, 5, 10, 15, 20, 25, and 30% discounts). As you might expect, many more discount cards are sent out for the lower levels of discounts than for the higher ones. In other words, the store sends out a lot more

discounts for 5% off you total purchase than they do for 30% off your total purchase.

While all credit card holders receive a discount card, the amount of the discount you receive is randomly determined."

In addition, in the effort with elite status condition, participants were told "Because you have spent at least $1,000 at the store in the last six months, you have been awarded 'Most Valuable Customer' Status." Participants in the elite status without effort condition (i.e., the endowed status condition) were told "Because of a company promotion, you have been awarded 'Most Valuable Customer' status. This status was automatically granted to you even though you haven't shopped at the store in the past six months." Participants in the no status and no effort condition were told that they were credit card holders and that they "haven't shopped at the store in the past six months." Participants in the effort without status condition were told that they were credit card holders and that they had "spent at least $1000 at the store in the past six months."

After reading the scenario, each participant indicated the extent to which they agreed with the following statements on a one ("strongly disagree") to seven ("strongly agree") scale: "I am more likely to receive a 30% discount card than the other customers who have a credit card with this store" and "I am likely to receive a higher level of discount than other customers who have a credit card with this store." These items were highly correlated and were collapsed into a single measure of subjective likelihood ($r = .83$, $M = 2.98$, SD = 1.86). In order to assess the extent to which consumers believe they deserve special treatment from the firm, respondents were also asked to indicate their agreement with the following statements using a seven-point scale anchored by "strongly disagree" and "strongly agree:" "I have earned special treatment from this store," "I feel like I deserve special treatment from this store," "I am entitled to preferential treatment from this store," and "I deserve preferential treatment from this store." These four items were highly correlated and were averaged to form a deservingness index ($\alpha = .92$, $M = 3.66$, SD = 1.75).

We also collected measures to test several alternatives to deservingness as the psychological mechanism behind the lucky loyalty effect. To test for the possibility that individuals may report higher subjective likelihoods because they experience an unequal sense of generalized luck across the effort and status conditions, participants were asked to rate their level of agreement with the following statement on a seven-point scale: "Luck will determine what discount I get." We also measured participants' belief about whether they have direct control over the outcome to test the illusion of control (Langer 1975, 1977) as a possible explanation for the lucky loyalty effect. To do so, we asked participants to respond to the following item on a seven-point scale: "I feel like I have some control over the discount I will receive." We also wished to examine individual differences in belief in a just world (Lipkus 1991; Olson et al. 2006; Wilson and Darke 2012) in order to test a broader belief in justice or fairness as an alternate account to our specific explanation about the relationship between loyalty to a firm and deserving special treatment from that firm, as well as to ensure that it is not only individuals who have a strong belief in a just world who exhibit the lucky loyalty effect. We therefore asked participants to complete a seven-item version of the Belief in a Just World Scale (Lipkus 1991; these items were averaged; $\alpha = .82$, $M = 3.72$, SD = .89). Sample items include: "I feel that a

person earns the rewards and punishments they get," and "I feel that people get what they are entitled to have."

Finally, to verify that the manipulations worked as intended, participants used a seven-point scale to indicate their agreement with the following statements: "I invested effort with this store," and "I am loyal to this store."

Results and Discussion

Manipulation Checks. We conducted a 2 (elite status: yes vs. no) x 2 (effort investment: yes vs. no) between-subjects ANOVA with participants' perceptions of effort as the dependent variable. Participants in the effort invested conditions reported that they had invested more effort with the store than those in the no effort conditions (M_{effort} = 5.50 vs. $M_{no\ effort}$ = 2.75; $F(1, 218)$ = 164.09, $p < .0001$). There were no other main or interactive effects for this analysis (both ps > .21). We then entered loyalty to the retailer as the dependent variable in a separate ANOVA, and results revealed that participants who had invested effort (vs. not) reported greater loyalty (M_{effort} = 5.61 vs. $M_{no\ effort}$ = 2.99; $F(1, 218)$ = 152.55, $p < .0001$). There was a marginal main effect of status (M_{status} = 4.12 vs. $M_{no\ status}$ = 4.47; $F(1, 218)$ = 2.76, $p = .10$), and no interaction ($F(1, 218)$ = .02, NS). Thus, both manipulations were successful.

Perceptions of Luck. To test for the lucky loyalty effect, we conducted the same ANOVA with the subjective likelihood measure as the dependednet variable. Results revealed a main effect of effort ($F(1, 218)$ = 6.37, $p < .05$, $d = .34$), such that those in the effort conditions (M_{effort} = 3.29) reported that they were more likely to receive a larger discount than those in the no effort conditions ($M_{no\ effort}$ = 2.66). There was neither a main effect of status ($F(1, 218)$ = 0.00, NS) nor a significant interactive effect of effort and status on the subjective likelihood measure ($F(1, 218)$ = 0.21, NS).

A similar pattern of results emerged when Belief in a Just World (BJW) was included in the model as a potential moderator. No significant three-way interaction emerged ($F < 1$) and, more crucially, the two-way interaction between effort and BJW was not significant ($F(1, 214)$ = 1.51, NS). These results suggest that the effect of effort is generalizable across consumers with different levels of this individual difference. Additionally, entering BJW as a covariate yields the same pattern of results as the analysis without the covariate.

Consistent with our theorizing that a sense of deservingness results from prior effort with the firm, conducting the same ANOVA with the index of deservingness as the dependent variable revealed a significant main effect of effort, such that participants in the effort invested conditions reported a larger deservingness index (M_{effort} = 4.30) than those in the no effort conditions ($M_{no\ effort}$ = 3.01; $F(1, 218)$ = 34.31, $p < .0001$, $d = .79$). There was neither a main effect of status ($F(1, 218)$ = 0.00, NS) nor an interactive effect of effort and status ($F(1, 218)$ = 0.06, NS). The same analysis revealed no effect of effort or status on participants' generalized sense of feeling lucky (all ps > .20) or perceptions of control (all ps > .31). There was a marginal effect of effort ($p = .07$) on BJW, such that higher effort lead to a greater belief in a just world, and no significant effect of status nor an interactive effect of effort and status on BJW (both ps > .46). Taken tougher, these results support the notion that it is deservingness, not a generalized sense of luck or the perceived ability to control random outcomes or a broader belief in a just world that results from prior effort invested with a firm.

Next, to determine if deservingness mediated the effect of effort on perceptions of receiving a larger discount, we conducted a bias-corrected mediation analysis using PROCESS Model 4 (Hayes 2012) with status and its interaction with effort entered as covariates. The mean indirect effect was positive (a x b = .2619), with a 95% confidence interval excluding zero (.1509 to .4127), indicating significant mediation by deservingness, as predicted. The relationship between effort and likelihood perceptions was not significantly mediated by perceptions of control (95% CI: -.0902 to .0891), generalized luck (95% CI: -.0746 to .0811), or a broader belief in a just world (95% CI: -.0084 to .0855), providing additional support for our prediction that deservingness is the mediating mechanism beween effort and subjective likelihood predictions.

Discussion. The results of study 2 distinguish between the role of effort and status in the lucky loyalty effect. First, the results demonstrate the importance of effort (i.e., loyalty), as status alone does not produce the lucky loyalty effect but effort alone does. Study 2 also replicates the findings of study 1 by demonstrating that it is the belief that a customer who has put in more effort with a company deserves special treatment that produces the lucky loyalty effect. Study 2 also provides empirical evidence against potential alternative explanations. The results indicate that the lucky loyalty effect is not driven by a more generalized sense of luck among loyal customers, a sense that loyal customers have agency in causing randomly-determined outcomes, or a greater belief in a just world.

Having established the lucky loyalty effect in two different contexts and demonstrated the importance of effort and the accompanying sense of deservingness that results, in study 3 we seek to provide evidence of the operation of the lucky loyalty effect in the field.

STUDY 3

Study 3 tests the robustness of the lucky loyalty effect in an online field study by leveraging naturally occurring effort differences among workers on Amazon's Mechanical Turk platform and utilizing an actual randomly-determined promotional outcome.

Participants and Procedure

Ninety-six adults recruited from Amazon Mechanical Turk completed the study for a small cash payment (see Goodman, Cryder, and Cheema 2013 for a discussion of data collection via Mechanical Turk). Half of the participant sample was composed of Mechanical Turk "Master Workers" — individuals who earned this designation for completing a specified number of HITs (i.e., tasks) with an approval rating of 95% or greater—and the other half was composed of non-Masters. According to Amazon, "Master Workers are Workers who have demonstrated the ability to provide successful results for specific types of tasks across multiple requesters on the Mechanical Turk Marketplace" (Amazon Mechanical Turk 2014). We recruited participants from the Masters and non-Masters groups to ensure a wide range of previous effort exerted (i.e., completed tasks or HITs). This study therefore employs participants' actual past effort with Mechanical Turk (vs. an imagined scenario involving hypothetical effort).

In addition to providing a real-world demonstration of the lucky loyalty effect, in this study we also measure perceived effort (rather than manipulating it). In doing so, we distinguish subjective effort perceptions from objective effort (i.e., number of HITs completed; notably,

perception of effort expended was not significantly correlated with number of previous HITs completed, $r = .14$, NS) and predict that the lucky loyalty effect is primarily driven by individuals' perceptions that they have exerted more effort in completing HITs relative to other workers on Amazon Mechanical Turk. Unlike a night spent at a hotel or a dollar spent at a retailer, the investment required to complete a given HIT may vary substantially. This implies that differences in total completed HITs, or between Master and Non-master designations, may not fully capture differences in the amount of effort MTurk workers feel they have invested with MTurk, as people who have completed the same total number of HITs may have invested very different levels of effort. Therefore, this context is well-structured for comparing the role of objective versus subjective effort in producing the lucky loyalty effect.

In order to test our predictions, all participants first completed an unrelated study and were then directed to a screen stating that "All participants who completed this Amazon Mechanical Turk HIT are automatically entered into a random drawing for a $50 Amazon.com gift card." We used an Amazon gift card as the prize to ensure the link between effort on Amazon.com's Mechanical Turk site and the drawing. The dependent variable was the extent to which individuals agreed with the following statement on a scale from one ("strongly disagree") to seven ("strongly agree"): "I am more likely to win the gift card than other participants who completed this HIT."

Next, participants were asked to respond to three measures to assess perceptions of deserving special treatment from Amazon Mechanical Turk. Specifically, using a seven-point scale anchored by "strongly disagree" and "strongly agree," participants indicated their agreement with the following statements: "I feel like I deserve special treatment from Amazon Mechanical Turk," "I am entitled to preferential treatment from Amazon Mechanical Turk," and "I deserve preferential treatment from Amazon Mechanical Turk." These three items were highly correlated and were averaged to form a deservingness index ($\alpha = .96$, $M = 2.58$, SD = 1.77).

To assess subjective perceptions of effort, participants were also asked to indicate their agreement with the following statement on a one ("Much Less") to seven ("Much More") scale: "Compared to other individuals with an MTurk worker account, how much effort have you invested in completing HITs?" Finally, as a more objective measure of effort, participants were asked to indicate "Approximately how many HITs have you completed on Mechanical Turk?" We then randomly selected a winner to whom the gift card was awarded via e-mail.

Results and Discussion

To analyze this data, we first ran a linear regression on participants' predictions of their relative likelihood of receiving the $50 gift card with subjective effort as the only predictor variable; the analysis yielded a marginally significant main effect of subjective effort, such that greater perceived effort was associated with a greater subjective likelihood of winning ($b = .28$, $t = 1.76$, $p = .08$). We then ran a second regression with objective effort (i.e., total number of HITs completed) as the sole predictor variable and subjective likelihood of winng as the dependent variable. The results of this analysis revealed no significant effect on subjective likelihood ($b = -.0000023$, $t = -1.55$, NS). Third, we ran a regression with group designation (i.e., Master vs. non-Master) as the sole predictor of winning. Results revealed no significant effect of group designation on subjective likelihood ($b = .083$, $t = .48$, NS). Finally, we ran a linear regression with subjective effort as the predictor variable, objective effort as a covariate (based on the conceptual distinction between perceived effort and total HITs completed), and subjective

likelihood as the dependent variable. The results of this analysis revealed a significant main effect of subjective effort ($b = .34$, $t = 2.09$, $p < .05$) and a marginally significant main effect of objective effort ($b = -.0000029$, $t = -1.91$, $p = .06$).

Results of a regression analysis on the deservingness index with subjective effort as the predictor variable indicated a significant main effect of subjective effort ($b = .40$, $t = 2.46$, $p < .05$). The same analysis with objective effort as the predictor yielded no significant effect on deservingness ($b = -.0000014$, $t = -.90$, NS). Results of the same analysis with group designation (Master Workers vs. non-Masters) as the predictor yielded a a marginal effect on deservingness ($b = .33$, $t = 1.87$, $p = .07$). Entering subjective effort as the predictor variable and objective effort as a covariate in a new regression revealed a main effect of subjective effort ($b = .44$, $t = 2.68$, $p < .01$) and no significant main effect of objective effort ($b = -.0000021$, $t = -1.38$, NS) on deservingness.

To determine if the perception that one has earned special treatment from Amazon Mechanical Turk mediated the effect of subjective effort on predicted likelihood of winning the gift card, we conducted a bias-corrected mediation analysis using PROCESS Model 4 (Hayes 2012) with objective effort entered as a covariate. The mean indirect effect was positive (a x b = .22) with a 95% confidence interval excluding zero (.0733 to .4440), indicating significant mediation.

These results provide support for the lucky loyalty effect using a real context in which we were able to assess previous effort and subjective perceptions of such effort, as well as provide a real randomly-determined outcome (i.e., a drawing for a gift card). The results are consistent with previous studies and reveal that it is consumers' perceptions of their prior effort that influence deservingness, which in turn impacts their judgments of the likelihood of receiving randomly-determined promotional outcomes from the firm. We next turn to identifying boundary conditions for the lucky loyalty effect in studies 4 and 5.

STUDY 4

Study 4 is designed to demonstrate that the lucky loyalty effect does not extend to randomly-determined outcomes unrelated to the firm with which a loyal consumer has invested past effort.

Participants and Procedure

A total of 99 undergraduate students participated in this study for course credit. The procedure was similar to that used in study 2 with two key exceptions. First, the promotion offered by the clothing retailer involved an online shopping context, so the discounts were described as being emailed to participants in the form of "codes" (vs. mailed as cards). Second, we manipulated the level of effort to be high versus low (as opposed to high vs. none, as in prior studies) to increase the generalizability of our results. Specifically, participants in the high effort condition were asked to imagine that "you have spent at least $1,000 at the store in the past six months," while participants in the low effort condition were asked to imagine "you have only spent $20 at the store in the past six months." We also did not include the explicit statement that distribution of the codes is random in order to demonstrate that the lucky loyalty effect holds without such reassurances.

After reading the scenario, participants then indicated their agreement with the following statements on a one ("strongly disagree") to seven ("strongly agree") scale: "I am more likely to receive a 30% discount code than other customers who have a credit card with this store," and "I am likely to receive a higher level of discount than other customers who have a credit card with this store." These are the same two dependent variables used in study 2, modified slightly to reflect the online context. As in study 2, these measures were highly correlated and were collapsed into a single subjective likelihood item ($r = .91$, $M = 3.55$, SD = 1.85). Participants also completed the same four measures of deservingness used in study 2 ($\alpha = .88$, $M = 3.97$, SD = 1.54) and the same manipulation checks for effort and loyalty.

After completing these measures, participants were asked to think about other events that might occur "later in the day after you receive your discount code from the retailer." Two of these events took place within an online context but were unrelated to the retailer administering the discount code program and one of them involved a contest from another firm with online and offline components. These measures were collected to test our contention that high prior effort would only lead to higher subjective likelihoods of obtaining random outcomes when the random outcomes are tied to the firm with which the consumer has invested effort (see table 1 for exact measures). These three events represent different random outcomes unrelated to the clothing retailer issuing the discount codes, including outcomes related to other firms (i.e., winning a prize by entering an online code found on a soda cap, winning a Facebook "like" promotion) and outcomes not related to a specific firm (i.e., receiving a good hand – full house or better – in a game of legal online poker). We expect the lucky loyalty effect to obtain only for beliefs about participants' relative likelihood of getting a higher valued discount code but not for these other randomly-determined outcomes taking place the same day in the same (online) context.

Results and Discussion

Manipulation Checks. We conducted a 2 (effort: high vs. low) between-subjects ANOVA with participants' perceptions of effort as the dependent variable. As expected, participants in the high effort conditions reported that they had invested more effort with the store than those in the low effort conditions ($M_{High\ effort} = 5.37$ vs. $M_{Low\ effort} = 2.88$; $F(1, 95) = 66.05$, $p < .0001$). The same ANOVA with loyalty to the retailer as the dependent variable revealed that participants in the high effort condition reported being more loyal to the firm ($M_{High\ effort} = 5.41$ vs. $M_{Low\ effort} = 3.48$; $F(1, 95) = 40.09$, $p < .0001$).

Perceptions of Luck. We conducted a series of 2 (effort: high vs. low) between-subjects ANOVAs with predicted likelihood of receiving a larger discount code relative to other consumers, as well as perceptions of having earned special treatment from the firm, as the dependent variables. The results revealed that participants who had invested high (vs. low) effort (1) thought they were more likely to receive a larger discount code ($M_{High\ effort} = 4.42$ vs. $M_{Low\ effort} = 2.66$; $F(1, 95) = 27.68$, $p < .0001$, $d = 1.07$) and (2) felt more strongly that they had earned special treatment from the retailer ($M = 4.57$ vs. 3.36; $F(1, 95) = 17.28$, $p < .0001$, $d = .85$). To determine whether the perception that one had earned special treatment from the firm mediated the effect of prior effort on subjective likelihood, we conducted a bias-corrected mediation analysis using PROCESS Model 4 (Hayes 2014). The mean indirect effect was positive (a x $b = .3648$) with a 95% confidence interval excluding zero (.1885 to .5866), indicating significant mediation.

Next we examined participants' subjective likelihoods of experiencing the randomly-determined non-firm related outcomes. As predicted, there was no difference in participants' judgments of how likely they were to obtain these other outcomes across the two effort conditions (all $ps > .17$).

Discussion. Study 4 demonstrates that the lucky loyalty effect only obtains for random outcomes directly related to the firm with which a consumer has invested past effort, thus demonstrating a boundary condition of the lucky loyalty effect and further enhancing our support for deservingness in creating the effect. When consumers have not put in effort with the entity controlling the outcome, they do not feel they have a higher chance of obtaining the random outcome because they do not feel that they deserve special treatment .

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STUDY 5

The primary purpose of study 5 is to show that the lucky loyalty effect will only obtain when the group to which high effort consumers compare themselves includes consumers who have put in low effort (vs. comparing themselves only to other consumers who have put in similarly high levels of effort with the firm). To do so, we manipulate the comparison group to be either high effort consumers or low effort consumers rather than a general group of "other consumers" as in previous studies. The study employs a 2 (effort: high vs. low) x 2 (comparison group: high effort customers vs. low effort customers) between-subjects design.

Participants and Procedure

A total of 232 undergraduates completed the study for course credit. All participants read the same scenario about a retailer emailing discount codes to all cardholders used in study 4, and high and low effort were manipulated in the same manner. After reading the scenario, participants were asked to indicate the extent to which they agreed with the following statement, manipulated between-subjects to reflect a comparison group who had invested low or high effort respectively, on a one ("strongly disagree") to seven ("strongly agree") scale: "I am more likely to receive a 30% discount code than other credit card holders who have spent [$20 or less/$1000 or more] in the last six months." All participants then completed the same manipulation check items used in previous studies.

Results and Discussion

Manipulation Checks. We conducted a 2 (effort: high vs. low) x 2 (effort of comparative group: high vs. low) between-subjects ANOVA with participants' perceptions of their own effort as the dependent variable. As expected, participants in the high effort conditions reported that they had invested more effort with the store than those in the low effort conditions ($M_{High\ effort} = 5.75$ vs. $M_{Low\ effort} = 3.20$; $F(1, 228) = 219.00$, $p < .0001$). There were no other main or interactive effects (both $Fs < 1$). The same ANOVA with loyalty to the retailer as the dependent variable

revealed that participants in the high effort condition reported being more loyal to the firm ($M_{High\ effort}$ = 5.83 vs. $M_{Low\ effort}$ = 3.72; $F(1, 228) = 157.44$, $p < .0001$). There were no other main or interactive effects (both Fs < 1).

Perceptions of Luck. The same between-subjects ANOVA with the likelihood of receiving a 30% discount code as the dependent variable revealed a significant main effect of effort ($M_{High\ effort}$ = 4.38 vs. $M_{Low\ effort}$ = 3.17; $F(1, 228) = 26.72$, $p < .0001$, $d = .59$), such that those in the high (vs. low) effort condition indicated higher subjective likelihoods. There was also a main effect of comparison group ($M_{Compare\ High}$ = 3.23 vs. $M_{Compare\ Low}$ = 4.33; $F(1, 228) = 21.98$, $p < .0001$, $d = -.53$), such that comparing likelihoods to those of other card holders who had invested low effort (i.e., $20 or less) led participants to report significantly higher likelihoods of receiving the 30% discount code themselves compared to when they were comparing their chances against those who had invested high effort (i.e., $1000 or more). Importantly, however, these results were qualified by an interaction ($F(1, 228) = 11.52$, $p < .001$, $d = -.45$). As shown in figure 1, when participants were asked to indicate how likely they would be to receive the 30% discount code relative to others who had invested low effort, effort significantly and positively predicted subjective likelihoods ($F(1, 114) = 39.65$, $p < .0001$, $d = 1.18$). However, when participants compared their own chances with those who had invested high effort, participants reported equal subjective likelihoods regardless of their prior effort ($F(1, 114) = 1.47$, NS).

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Insert figure 1 about here

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Discussion. These results demonstrate that the lucky loyalty effect only obtains when the group to which high effort consumers compare themselves includes consumers who have invested low effort (vs. other consumers who have invested similarly high levels of effort) with the firm. When consumers do not perceive that they have invested more effort than other consumers, they do not feel they have an advantage over these consumers in winning random outcomes because they are no more deserving in terms of past effort than the others to whom they must compare themselves. These findings are also consistent with the findings of the field study (study 3) that highlight the importance of subjective effort in driving the lucky loyalty effect.

GENERAL DISCUSSION

In this research, we explore how loyal customers (who have put in relatively high amounts of effort with a firm in the form of past purchases) respond to randomly-determined marketing outcomes (e.g., obtaining the highest discount in a promotional give-away, winning a prize in a random drawing). In doing so, we document a previously unexplored psychological consequence of loyalty. Specifically, we find evidence for a "lucky loyalty" effect in which participants believe that greater effort (e.g., dollars spent at a retailer, nights spent at a hotel) results in greater likelihood of obtaining randomly-determined promotional outcomes. We also provide evidence that this effect is due to deservingness felt by the loyal consumer. Specifically, consumers who have put in high (vs. low or no) effort with a firm report higher subjective likelihoods for receiving randomly-determined outcomes from that firm because they feel they

deserve special treatment due to their past purchases. In other words, people feel that their expenditures with a firm have earned them better treatment. Although this is rational for purchase-related rewards, it becomes irrational when it is generalized to outcomes that are randomly-determined. We also document two boundary conditions for the lucky loyalty effect, demonstrating that high-effort consumers' subjective likelihoods for random outcomes are not subject to the lucky loyalty effect when the outcome is unconnected to the firm with which they have invested effort and when they are reporting likelihoods relative to other consumers who have also invested high levels of effort with the firm.

Contributions and Implications

Our work contibutes to the loyalty literature (e.g., Bagchi and Li 2011; Dréze and Nunes 2009; Kivetz 2003, 2005; Kivetz and Simonson 2002, 2003; Kivetz, Urminsky, and Zheng 2006; Lewis 2004) by demonstrating the surprising strength of the expectations loyal customers have for preferential treatment. Although it is unsurprising that a firm's loyal customers expect special treatment (Kivetz 2003; Kivetz and Simonson 2002), our research shows that these expectations carry over to outcomes that should not be influenced by one's past purchases because they are truly random. Thus, we add to the literature on consumer loyalty by examining novel effects of loyalty and providing evidence for the psychological mechanism that drives the lucky loyalty effect: the sense of entitlement that loyal customers feel when they believe that they are deserving of special treatment due to their past patronage. Interestingly, the boundary condition tested in study 5 highlights the fact that those who have exerted prior effort tend to automatically compare themselves to others who have invested less effort, suggesting that the effort exerted leads to expectations that they are a "special" customer.

Our work also has implications for the literature linking customer effort in loyalty programs with preferences for reward type (Kivetz 2003; Kivetz and Simonson 2002). Kivetz's (2003) finding that risky but larger rewards are preferred by those at both tails of the effort-invested spectrum (i.e., those who have exerted either little effort or significant effort) suggests that loyal consumers who have exerted substantial effort may find the types of promotional offers examined in our research especially appealing, particularly since these loyal consumers are likely to think their chances of winning are higher. Further, despite the fact that much of the past work on customer loyalty has focused on the effects of different tiers of status within loyalty programs (Dréze and Nunes 2009; Henderson et al. 2011; Kivetz and Simonson 2003; Kumar and Shah 2004), our work demonstrates that it is effort (in the form of past purchases) and not a status designation alone that impacts perceptions of luck. Therefore, we add to the literature on endowed versus earned progress (Kivetz, Urminsky, and Zheng 2006; Nunes and Dréze 2006; Zhang and Huang 2010) by demonstrating differential outcomes for endowed versus earned status.

Next, our research contributes to the literature on promotional games. Promotional games have been classified into those involving luck and those involving some element of skill (Laporte 2009), and we focus on consumer responses to promotional games involving pure luck (Kalra and Shi 2002; Prendergast and Thompson 2008). In addition to the examples we have used in the current studies, other recent luck-based examples (e.g., Kohl's Dream Receipt Sweepstakes, in which one customer per store, per day during a recent holiday shopping season received their entire purchase for free, or HGTV's Dream Home Giveaway) suggest that such offers continue to be used in the marketplace. Despite their popularity (Johannes 2008), promotional games have

received very little empirical attention. As such, we provide new insights into the use of promotional games by addressing the potential for interactions between promotional strategies and loyalty.

Finally, we contribute to an understanding of luckiness in the marketplace. Research in psychology typically views luck as an external and unstable factor in explaining events, meaning that the person cannot claim credit or responsibility for the outcome and that the outcome will have no impact on similar future outcomes (Weiner 1972). Prior research on luck in the marketplace has typically examined the consequences of feeling lucky (Darke 1997; Darke and Freedman 1997; Jiang et al. 2009) or the presence of lucky objects or numbers (e.g., Goodman and Irwin 2006; Hamerman and Johar 2013) in decision making. Similarly, other work on superstitious beliefs examines how such beliefs impact behavior, rather than how a firm's actions can influence perceptions of luck (DeMarree et al. 2005; Kramer and Block 2008). We instead show a new antecedent to consumer "luckiness:" Consumers report higher subjective likelihoods of receiving randomly-determined outcomes as a result of effort invested with a company in the form of past purchases.

Future Research and Conclusion

Although our studies provide consistent support for the role of deservingness in driving the lucky loyalty effect (i.e., that higher effort leads to greater perceptions of deservingness, which in turn leads to higher subjective likelihoods of obtaining random promotional outcomes), there is more to be learned about this process. While the link between effort and deservingness is supported by prior literature (Adams 1965; Feather et al. 2011, Kivetz 2003; Kivetz et al. 2006), the path from deservingness to higher subjective likelihoods warrants further exploration. Specifically, we do not yet know the psychological driver of the unjustified belief that deservingness leads to luckiness in obtaining non-random rewards. Our empirical results suggest that a general belief in a just world or generalized feeling of luck do not explain this effect, nor does the illusion of control. To complement the analysis reported in study 2, we also tested three additional models exploring whether any of these candidate factors for causality mediated the link between deservingness and luckiness. Each of these serial mediation tests, conducted using PROCESS model 6 (Hayes 2012), examined the significance of three different causal chains: (A) effort to deservingness to luckiness, (B) effort to deservingness to {candidate causal factor} to luckiness, and (C) effort to {candidate causal variable} to luckiness. In all cases, the A causal chain contained a bias-corrected 95% confidence interval excluding zero, indicating significant mediation, whereas the intervals for both the B and C chains contained zero, indicating that none of them were significant indirect pathways. These data suggest that deservingness does not lead to luckiness *because of* a belief in a just world, a general feeling of luck, or an illusion of control. However, the heuristic or intuition that drives the link between deservingness and luckiness is not yet fully understood. We leave this question for future research.

One potentially fruitful avenue we suggest for this future research is the representativeness heuristic (Kahneman and Frederick 2002; Kahneman and Tversky 1972). According to Kahneman and Frederick (2002), when an individual is asked to judge a target attribute value that cannot be simply retrieved from memory (e.g., "how tall are you?") or judged based on current experience (e.g., "how much do you like the cake you are consuming right now?"), the search for an appropriate value activates other attributes that are conceptually related. It may be that consumers are so accustomed to receiving better outcomes when they

invest more effort that they translate such experiences to circumstances under which the logic does not apply. As such, they may substitute these more familiar judgments, thereby inflating expectations about receiving random outcomes following increased exertion of effort. If this is indeed the case, interventions that reduce the use of heuristics (e.g., the activation of a more cognitive mindset; Epstein and Pacini 1999) may effectively eliminate the lucky loyalty effect.

Future research on the lucky loyalty effect could also identify the effect of effort on different promotional program structures. In the present research, the number of entries into the random drawings in studies 1 and 3 was held constant (i.e., everyone automatically received one entry). However, if the promotion allowed for unlimited entries, higher effort consumers may submit fewer entries because they do not feel the need to submit multiple entries in order to maximize their chance of winning (i.e., they already feel likely to receive the random outcome). Relatedly, low effort consumers (in terms of prior patronage) who invest significant effort in the promotion itself (e.g., by submitting multiple entries) may feel deserving of special treatment. Future research could also explore whether high effort consumers are more willing to incur a cost (e.g., in time or money) in order to participate in a randomly-determined promotion given their perceptions of a higher subjective likelihood of winning. It could also be worthwhile to explore the relative availability of the random outcome. For example, firms may offer several random outcomes (i.e., different prizes) or they may have more than one of the same prize, thus allowing for multiple winners. The relative scarcity or abundance of the good may shift consumers' subjective likelihoods by adjusting what reward they feel is merited by their effort (Kivetz 2003) and which ones they would prefer to win (Kivetz and Simonson 2002). It may also be worthwhile to explore the factors that determine whether consumers make spontaneous, unprompted likelihood predictions when faced with random-outcome promotions; past research suggests that consumers do not make such predictions under all circumstances (Rottenstreich and Kivetz 2006).

Future research could also explore how consumers who thought they had higher chances of receiving a random outcome react when they do not, in fact, win the giveaway. Past research suggests that these consumers may be more dissatisfied (relative to low effort consumers), in keeping with an expectancy-disconfirmation account in which consumers are more disappointed when outcomes fail to meet expectations (Oliver 1977; Weaver and Brickman 1974). Accordingly, future research could explore whether high effort consumers who do not win are subsequently less willing to exert effort with the firm or engage with the firm in other ways.

Another potential avenue for further research is exploring whether our findings extend to feeling protected from negative outcomes. We expect that if the randomly-determined outcome is not desirable (i.e., the outcome has a negative valence), consumers will not perceive a link between their effort and the outcome since the association between loyalty and special treatment is only for *positive* special treatment (i.e., firms single out their most loyal customers for rewards, not punishments). This suggests that there would not be an "unlucky" loyalty effect for negative outcomes. Preliminary evidence from a study not reported here (n = 264; additional details available from the authors) provides initial support for this prediction in a hotel context. Specifically, the lucky loyalty effect did not hold for subjective likelihood predictions for a negative outcome (i.e., having the sprinklers go off in your hotel room as part of a random sprinkler system test) but did hold for positive outcomes (i.e., receiving a gift basket, as in study 1). Thus, there was a significant interaction between effort level and outcome valence, such that the lucky loyalty effect obtained for positive, but not negative, outcomes ($F(1, 255) = 4.02$, $p < .05$). Although effort did not lead to feeling less likely to have negative outcomes occur in this

study (i.e., it had a non-significant effect on likelihood perceptions for negative events), we leave it to future research to test whether loyal consumers may actually feel insulated from negative outcomes in some circumstances.

Finally, we note that our findings potentially represent a much more general effect beyond randomly-determined marketing promotions. In any domain in which individuals perceive that they have invested a great deal of effort (e.g., by purchasing lottery tickets for many years), they too will likely feel more deserving and therefore think that their chances of winning are higher than those of others (e.g., the casual lottery ticket buyer). In other words, the notion of being able to earn "unearnable" outcomes based on perceptions of one's individual effort may be a broader psychological phenomenon. We leave these and other avenues for future research to explore.

DATA COLLECTION PARAGRAPH

All studies (with the exception of the first study, which was designed by the first two authors) were jointly designed by all three authors. The first author supervised the online collection of data for the first study using participants from the Fisher College of Business Behavioral Lab at The Ohio State University in April 2011. All three authors jointly analyzed these data. The first and third authors jointly supervised the collection of data for the second study by a lab manager and research assistants at the Fisher College of Business Behavioral Lab at The Ohio State University in April 2013. The first and third authors jointly analyzed these data. The third author managed the collection of data for study 3 using Amazon's Mechanical Turk in June 2013. The first and third authors jointly analyzed these data. The second author supervised the collection of data for study 4 by research assistants at the Owen Behavioral Lab at Vanderbilt University in March 2014. These data were analyzed jointly by all three authors. The first and third authors jointly supervised the collection of data for study 5 by a lab manager and research assistants at the Fisher College of Business Behavioral Lab at The Ohio State University in March 2014. The first and third authors jointly analyzed these data.

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Table 1

Study 4: Mean Subjective Likelihoods for Random Outcomes Unrelated to the Firm with which
Consumers have Invested Prior Effort

Randomly Determined Outcome	Condition		Results
	High Effort	Low Effort	
1. "I am more likely to receive the prize than other people who 'Liked' the brand."	1.82	1.97	$F(1,95) =$ .29, $p = .59$
2. "I am more likely to receive a good hand (full house or better) than other people playing at the virtual [poker] table with me."	1.57	1.79	$F(1,95) =$ .92, $p = .34$
3. "I am more likely to win a prize under the cap of the bottle of soda I bought than other people who enter their soda codes on that day."	1.45	1.75	$F(1,95) =$ 1.91, $p = .17$

1. Imagine that you have "Liked" a different brand on Facebook, and the brand is running a special giveaway where someone from among all the people who "Liked" it receives a monetary prize.

2. Imagine that you are playing legal online poker.

3. Imagine that you go to your fridge to get a bottle of soda and you notice that there is a promotional code printed under the cap. You go online and enter the code to see if you have won a prize.

Table 2

Means for Dependent Variables in Retail Context
Subjective Likelihood of Receiving a Larger Discount

|	Main Effects of Effort		Relevant Interaction with Effort		
	High Effort	No/Low Effort			
Study 2	3.29	2.66		High Effort	No Effort
			No Status	3.34	2.60
			Status	3.24	2.73
	$F = 6.37, p < .05$		$F(1, 218) = .21$, NS		
Study 4	4.41	2.66	n/a		
	$F = 27.68, p < .0001$				
Study 5	4.38	3.17		High Effort	Low Effort
			Other: Low Effort	5.33	3.32
			Other: High Effort	3.44	3.02
	$F = 26.72, p < .0001$		$F(1, 228) = 11.52, p < .001$		

FIGURE LEGEND

FIGURE 1

STUDY 5: INTERACTION OF EFFORT INVESTED WITH FIRM BY EFFORT OF
COMPARISON GROUP

FIGURE 1

STUDY 5: INTERACTION OF EFFORT INVESTED WITH FIRM BY EFFORT OF
COMPARISON GROUP
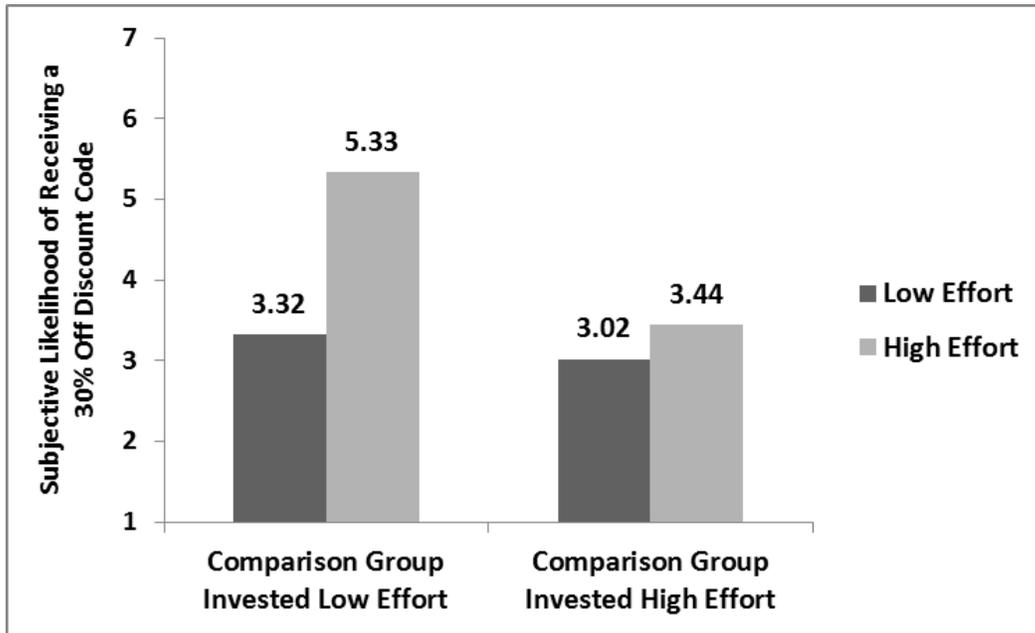
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