Promotional Games Increase Consumer Conversion Rates and Spending

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Promotional games are used frequently in retail stores and online. While prior literature has focused on antecedents of promotional games, such as how individual differences induce game participation, little is known about post-winning decision making or its underlying processes. This study offers findings from seven studies to provide a detailed perspective on how promotional games increase consumer conversion rates and spending. The effect of winning a discount on conversion rates and spending is multiply determined and occurs via perceptions of luck and store affective attitude, and via perceptions of luck alone and store affective attitude alone. In order to get a more nuanced understanding of the underlying processes and to delineate theoretically driven boundary conditions for this novel effect, the authors subsequently analyze the two individual pathways through perceptions of luck and store affective attitude in isolation. Thereby, they contribute to the literature on pricing and promotions by providing a detailed understanding on how winning a promotional discount leads to a different set of consumer inferences relative to an equivalent straight discount, and to the literature on the role of luck in consumer behavior by providing a nuanced understanding of how luck operates in this common consumer context.

Keywords: luck, promotional game, discount, promotion, conversion rate, brand equity

Discounts and promotions account for over 25% of total sales for typical consumer goods (Rapperport 2015). While marketers offer different kinds of promotions, one kind gaining in popularity involves a game of chance. In these promotions, instead of providing a straight discount (e.g., receiving a 20% off coupon), consumers take part in a game with uncertain outcomes (e.g., choosing a scratch ticket with the chance to win 20% off). Several large national retailers, including Forever 21 and J. Crew, offer these kinds of promotional games quite frequently both in their stores and online (see web appendix A for examples). Consequently, these games have received increased scrutiny in the academic literature (Alavi, Bornemann, and Wieseke 2015; Briley, Danziger, and Li 2018; Fang and Mowen 2009; Goldsmith and Amir 2010; Kalra and Shi 2010; Laran and Tsiros 2013; Ward and Hill 1991).

In spite of the emerging research interest, several aspects of these promotional games remain unexplored. While prior literature has focused on antecedents of promotional games, such as how individual differences (Briley et al. 2018; Fang and Mowen 2009) and game format (Alavi et al. 2015; Goldsmith and Amir 2010; Kalra and Shi 2010; Laran and Tsiros 2013; Ward and Hill 1991) induce game

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participation and game evaluation, little is known about post-winning decision making or the processes that drive these behaviors. For example, does winning a discount alter self-beliefs? Does it impact source (i.e., store) beliefs? What are the ramifications of such beliefs—do they impact sales? If so, how?

The last set of questions relates to how winning promotional discounts compares with straight discounts of equal value. While prior research on discounts has studied how different facets of a straight discount, such as how its format (e.g., percentage off vs. buy one get one free; Gordon-Hecker et al. 2019), amount (Grewal et al. 1998), and presentation (Krishna et al. 2002) impact decision making, it is a priori unclear how such discounts would be judged vis-à-vis discounts won from promotional games.

We attempt to address these questions. We focus on two key outcome measures for businesses: purchase incidence (conversion rate) and overall spending at the store. We compare won discounts with straight discounts and explain how and why these discounts impact conversion rates and spending. Two perspectives are possible.

One perspective is that the type of discount will not influence conversion rates or sales. Indeed, while previous literature suggests that price promotions influence store performance metrics positively (e.g., store traffic, sales, profits; Gauri et al. 2017), in our case, the discounts are normatively equivalent—20% off the entire purchase. Thus, extant literature would not suggest that the outcomes would vary.

We, however, propose that winning in promotional games will increase customers' likelihood of making purchases at the store, which will increase overall spending. This phenomenon, however, is multiply determined, and is impacted by both beliefs about the self as well as the source. From a self-belief perspective, winning a promotional game induces feelings of luck. However, winning also impacts source beliefs and leads to greater store affective attitude. These two processes impact purchase likelihood and overall spending not only jointly but also independently. In seven studies, we present a detailed perspective on how and why promotional games impact consumer purchase decisions.

These findings allow us to make several theoretical contributions. Our main contribution is to the literature on pricing and promotions (Heilman, Nakamoto, and Rao 2002; Inman, McAlister, and Hoyer 1990; Inman, Peter, and Raghubir 1997) by demonstrating how winning a promotional discount leads to a different set of inferences relative to an equivalent straight discount. Second, we contribute to the literature on the role of luck in consumer behavior (Darke and Freedman 1997a; Jiang, Cho, and Adaval 2009; Kunda 1990). While previous research has shown that priming people with luck-related concepts influences assessments of events with uncertain outcomes, it does not offer insights on consumer behavior in deterministic contexts. We provide a nuanced understanding of how luck operates. On the one hand, feelings of luck increase store affective attitude, which increases conversion rates and overall spending. However, in addition to this indirect effect, feelings of luck also directly impact both metrics.

Our findings also have important managerial implications. First and foremost, we show that discounts obtained from promotional games generate higher conversion rates and overall spending, ranging from 42% to 213% across all our studies. Furthermore, as we find in study 1B, even when the discount won from a promotional game is smaller than a straight discount, it still generates higher conversion rates and leads to greater overall spending.

Second, we find that the increase in sales is driven by more consumers buying rather than a smaller group of consumers buying more. This larger customer base, in turn, should have a direct impact on firms' long-term profitability (Blattberg, Getz, and Thomas 2001; Villanueva, Yoo, and Hanssens 2008).

Third, discounts and promotions are traditionally not thought of as vehicles to increase brand equity, and may actually undermine brand equity (Chandon, Wansink, and Laurent 2000; Mela, Gupta, and Lehmann 1997). Consequently, industry experts and academics alike suggest it may be important to devise other cost-effective albeit non-price promotions (Chandon et al. 2000; Kahn and McAlister 1997; Lal and Rao 1997). However, we present initial evidence that managers can use such promotional games strategically as a cost-efficient way to enhance store loyalty and build brand equity.

Finally, although we find that discounts offered via promotional games generally elicit more positive reactions relative to straight discounts for all kinds of products, these effects are more pronounced for hedonic products. Consequently, it might be more beneficial to offer promotional games in stores and product categories that are more hedonic. We discuss these and other implications in the general discussion.

THEORETICAL BACKGROUND

Researchers have studied the effectiveness of promotional discounts quite extensively. Forty years ago, Cotton and Babb (1978) presented evidence that promotions can result in substantial increases in sales, and others have since confirmed this (Bell, Chiang, and Padmanabhan 1999; Bucklin, Gupta, and Siddarth 1998; Chiang 1991; Grewal et al. 1998; Gupta 1988; Heilman et al. 2002; van Heerde, Leeflang, and Wittink 2004). Gauri et al. (2017) provide an excellent review of the impact of promotional discounts on store performance metrics, such as store traffic, sales, and profits. We extend this research by investigating how one kind of promotion—winning in

promotional *games*—influences conversion rates and overall spending.

We propose that, relative to receiving a straight discount, winning a discount in a promotional game increases both the subsequent likelihood of making a purchase at the store as well as overall spending. This phenomenon is multiply determined and occurs due to a combination of feelings of luck and store affective attitude. We first discuss the literature on promotional games and then discuss our exposition, along with our underlying process.

Promotional Games

In their seminal work, Ward and Hill (1991) suggest that, to be effective, promotional games should tailor format and prices to the target market, present winning chances accurately, and provide consolation prizes. In recent times, however, much more nuance has been added to these findings. This research can be broadly categorized into two streams. The first stream examines how individual differences affect game participation. Factors such as interest in gambling and seeking impulsive sensation increase participation (McDaniel 2002; see also Briley et al. 2018 and Fang and Mowen 2009). Likewise, demographics such as age, gender, and education also impact participation. For example, younger people, females, and people with lower education are more likely to participate (Fang and Mowen 2009).

The second stream examines how the format of the game affects consumer participation and evaluations. Findings suggest that consumers derive greater utility from outcomes that are uncertain. For example, Goldsmith and Amir (2010) show that uncertain incentives (e.g., receiving either a package of Godiva truffles or two Hershey's Kisses *with* a purchase) are almost as effective as the higher-valued incentive with certainty (e.g., receiving the Godiva truffles). Extending this research, Laran and Tsiros (2013) posit that preference for the uncertain outcome is influenced by how consumers process this information—affectively or cognitively. They examine how the probability of receiving a free gift with a purchase affects purchase likelihood. They find that when the decision is cognitive (affective), uncertainty (i.e., not knowing the associated free gift) lowers (increases) purchase likelihood. Kalra and Shi (2010) investigate how different facets of games (e.g., allocation of prize money) affect evaluations. Alavi et al. (2015) examine how participants react to an offer associated with a gamble (e.g., 50% chance of receiving a 50% discount on a product *after* making the purchase) versus a straight discount (e.g., guaranteed 25% discount). This research is the closest to ours, but the context of our study is very different and thus provides a much more nuanced understanding of the implications of discount type. First, our products are not associated with a gamble; every participant receives a discount—via game or straight—*before* making a potential purchase. Second, our discount depths do not differ between conditions, while theirs do (e.g., 25% vs. 50%), permitting us a much cleaner comparison of treatment-based behavior. Third, we study both conversion rate and spending while they assess different measures (e.g., internal reference price). Finally, our process involves luck and affect, which their studies lack.

We posit that winning a discount elicits perceptions of luck and store affective attitude, which increase purchase likelihood and overall spending.

Perceived Luck and Store Affective Attitude (Indirect Effect)

Research on perceived luck typically examines the impact of chronic superstitious beliefs and/or lucky events (e.g., winning a game of chance) on subsequent risk taking and decision making in superstitious as well as probabilistic contexts. For example, Carlson, Mowen, and Fang (2009) find that superstitious people are not only more likely to forward superstitious emails and keep good-luck charms, but they also like to gamble and invest in the stock market, among other things. Superstitious beliefs can also influence willingness to pay. For instance, consumers with superstitious beliefs are willing to pay more for a smaller package with a lucky number of items (Block and Kramer 2009). Likewise, consumers are more likely to purchase a more expensive product with a lucky price (Kramer and Block 2008). Such superstitious beliefs influence decision making in a variety of decision contexts, ranging from stock (Areddy 2007) to home purchases (Schaefer Munoz 2007). The effects of these beliefs are not just felt at the micro level but also have macro-level implications—for example, consumers' unwillingness to travel and conduct business on Friday the 13th leads to large losses and has a negative impact on the economy (Carlson et al. 2009; Roach 2012).

This research has focused on specific superstitious beliefs and their consequences (e.g., preference for lucky number 8 or avoiding unlucky number 13), while others investigate how perceptions of luck affect decision making in uncertain contexts. For instance, Wohl and Enzle (2003) find that participants who experienced a near big loss (vs. a near big win) on an initial event feel luckier and bet more money on a subsequent game of chance. Likewise, Jiang et al. (2009) show that priming consumers with lucky numbers can induce perceptions of luck. These perceptions then influence evaluations of different promotional strategies, estimates of how likely consumers are to participate in and win the lottery, and also the amount of money consumers are willing to invest in uncertain financial options.

While most previous research uses prior beliefs (e.g., superstitions) or priming of luck (e.g., with lucky numbers) to investigate how consumers choose between lucky and unlucky outcomes (e.g., products that have a lucky number

of units) or behave in subsequent games of chance, we investigate how inducing luck endogenously via winning a promotional game affects conversion rates and overall spending. We believe that winning a promotional game will induce perceptions of luck. This is because the game contains an element of chance and participants are unaware of whether they will win the discount or not. Thus, winning the discount is likely to induce perceptions of luck. Indeed, prior research suggests that self-perceptions of luck can be altered (Jiang et al. 2009; Wheeler, DeMarree, and Petty 2007). In contrast, straight discounts do not contain any element of chance, and are thus unlikely to change people's self-perceptions of luck.

These perceptions of luck will increase store affective attitude because consumers will attribute their luck to the store—the lucky event occurred because the store was offering a promotional game. Past research suggests that when individuals attribute luck to a particular object or event, they show appreciation for this entity. For example, people appreciate and value good-luck charms more than other trinkets (Carlson et al. 2009), are willing to pay more for packages with a lucky number of items (Block and Kramer 2009), and pay more for products with a lucky price (Kramer and Block 2008). Because Friday the 13th is judged as being responsible for bad luck, people alter their behaviors on this day (Carlson et al. 2009; Roach 2012). Likewise, we expect consumers to show appreciation for the store responsible for eliciting luck. Thus, luck will induce store affective attitude. We expect this effect to be stronger for promotional games than for straight discounts because the latter do not contain an element of chance and therefore are unlikely to increase feelings of luck in the first place.

Perceived Luck (Direct Effect)

In addition to exploring indirect store effects of perceived luck, we also expect luck by itself to play a role. This is because luck induces a positive action-oriented state. Past research suggests that priming people with luck-related concepts not only leads to greater action orientation, such as participation in lotteries or investments in risky financial options, but also impacts perceptions positively, such as how likely one is to win a lottery (Darke and Freedman 1997a; Jiang et al. 2009; Kunda 1990). In other words, luck leads to greater risk taking and confidence (Darke and Freedman 1997a; Xu, Zwick, and Schwarz 2001). This boost in confidence is likely to impact purchases. Indeed, most purchase contexts have a certain amount of uncertainty associated with them—consumers often have to make tradeoffs between products—and such uncertainty is likely to impede action. Because luck provides a confidence boost and induces a positive action-oriented state, it propels consumers to act on opportunities. Given this, we believe that a lucky consumer is more likely to engage in an action, and in our case this would imply making a purchase after winning a discount in a promotional game.

Furthermore, if perceptions of luck underlie our effects, then these effects should emerge only for those who believe in luck. Indeed, Darke and Freedman (1997a) show that belief in luck plays an important role in how consumers assess their chances in uncertain events—those who believe in luck are more confident and bet more money on uncertain events than those who do not believe. Thus, we expect our effects to be stronger among those who believe in luck; that is, those who believe in luck are more likely to make a purchase after winning a discount in a promotional game as opposed to receiving a regular discount of equivalent value. In addition to supplementing our process, this also helps us delineate a theoretically derived boundary condition.

Store Affective Attitude (Direct Effect)

Winning a discount in a promotional game will also directly increase store affective attitude, independent of luck. Naylor, Raghunathan, and Ramanathan (2006) argue that receiving a promotional offer (e.g., seeing a 20% off sign) spontaneously evokes an affective response, which influences product evaluations. This occurs because promotions are usually associated with beneficial outcomes (e.g., savings; Inman et al. 1990). Relatedly, Heilman et al. (2002) show that receiving a coupon in the store increases basket size. They argue, absent empirical evidence, that the coupon receipt may have increased affect toward the store, which may have led to these effects. But why would winning a discount increase store affective attitude more than receiving a straight discount?

In order to better understand this phenomenon, it may be instructive to understand the kinds of values that discounts confer. Tasks typically confer two kinds of values: utilitarian and hedonic (Babin, Darden, and Griffin 1994). In shopping contexts, the utilitarian value arises from completing tasks such as buying products in a deliberative, efficient way, while the hedonic affective value arises from the fun and playfulness associated with shopping and the entertainment and emotional worth derived thereof (Bellenger, Steinberg, and Stanton 1976; Holbrook and Hirschman 1982). Chandon et al. (2000) take this a step further and propose that different kinds of discounts confer different values—for example, coupons, rebates, and price reductions, which are generally consistent with our notion of straight discounts, are high on utilitarian value, but low on hedonic value. On the other hand, some kinds of promotions, such as sweepstakes, contests, and free gifts, are "intrinsically fun to watch and to participate in" (69) and should therefore provide greater hedonic/affective value.

In our context, we compare straight discounts with those won from a promotional game. While both should provide

equivalent utilitarian values (e.g., both help save money), winning a promotional game should elicit greater hedonic/affective value. The game is more fun and entertaining, and it is much more exciting to win games with uncertain outcomes (Chandon et al. 2000). Because this positive affective attitude is derived from the task, these feelings should be attributable to the store. Thus, we expect winning a promotional game would elicit more positive store affective attitude relative to a straight discount. This is consistent with the argument Babin et al. (1994) make that consumers have a positive affective attitude toward flea markets because of the hedonic value they derive from finding unexpected bargains there.

But how does this affect sales? Heilman et al. (2002) argue that a positive affective attitude toward a store elicits greater sales. Consumers may be more willing to shift purchases that they would have otherwise made later on or from a different store to the current one. This is because winning the promotional game induces positive store affective attitude and consumers are likely to maintain this positive relationship. This explanation is quite consistent with a broad range of findings in other areas of research. For example, this idea has been used to explain the effectiveness of certain compliance tactics (e.g., foot in the door; Burger 1999; Freedman and Fraser 1966) and has a long history in other theories in the persuasion literature (e.g., balance theory; Heider 1946, 1958). That is, winning a lucky discount from a seller is likely to make this a positively valenced relationship, which consumers are motivated to maintain by using the discount to buy more from the seller, and through loyalty. Therefore, we expect winning a discount in a promotional game to elicit stronger positive store affective attitude, which should in turn lead to higher purchase likelihoods and overall spending.

Furthermore, if the increase in conversion rate and overall spending occurs because promotional games induce more hedonic affect, then these effects should be stronger for more hedonic products. Chandon et al.'s (2000) "benefit congruency principle" asserts that "sales promotions are more effective in influencing brand choice when they provide the benefits that have the largest weight in the evaluation of a purchase alternative" (72). In other words, sales promotions that bestow hedonic/affective benefits, such as winning in promotional games in our case, should have a stronger effect in eliciting sales of hedonic products, as these products are affect-laden and their consumption decisions are predicated on affective considerations. This basic idea of matching is not limited to discounts alone and finds it roots in attitude and persuasion theory (see Chandon et al. 2000 for a discussion). However, this does not imply that our effects would not emerge for all kinds of products, but rather that the benefit congruency effect should make the effects stronger for more hedonic products. Therefore, we expect the effect of promotional games on conversion rates and overall spending to be stronger for more hedonic products.

Overview of Studies

In our analyses, we focus on conversion rate as the main driver of spending (all studies), but also report spending (studies 1A, 1B, 2) to provider deeper insights. Conversion rate refers to the likelihood of making a purchase. Spending can be reported in terms of average basket value and average overall spending. Average basket value refers to the average amount of money spent by individuals who bought at least one item. Average overall spending refers to the average amount of money spent by both spenders and nonspenders, and is the product of multiplying conversion rate by average basket value.

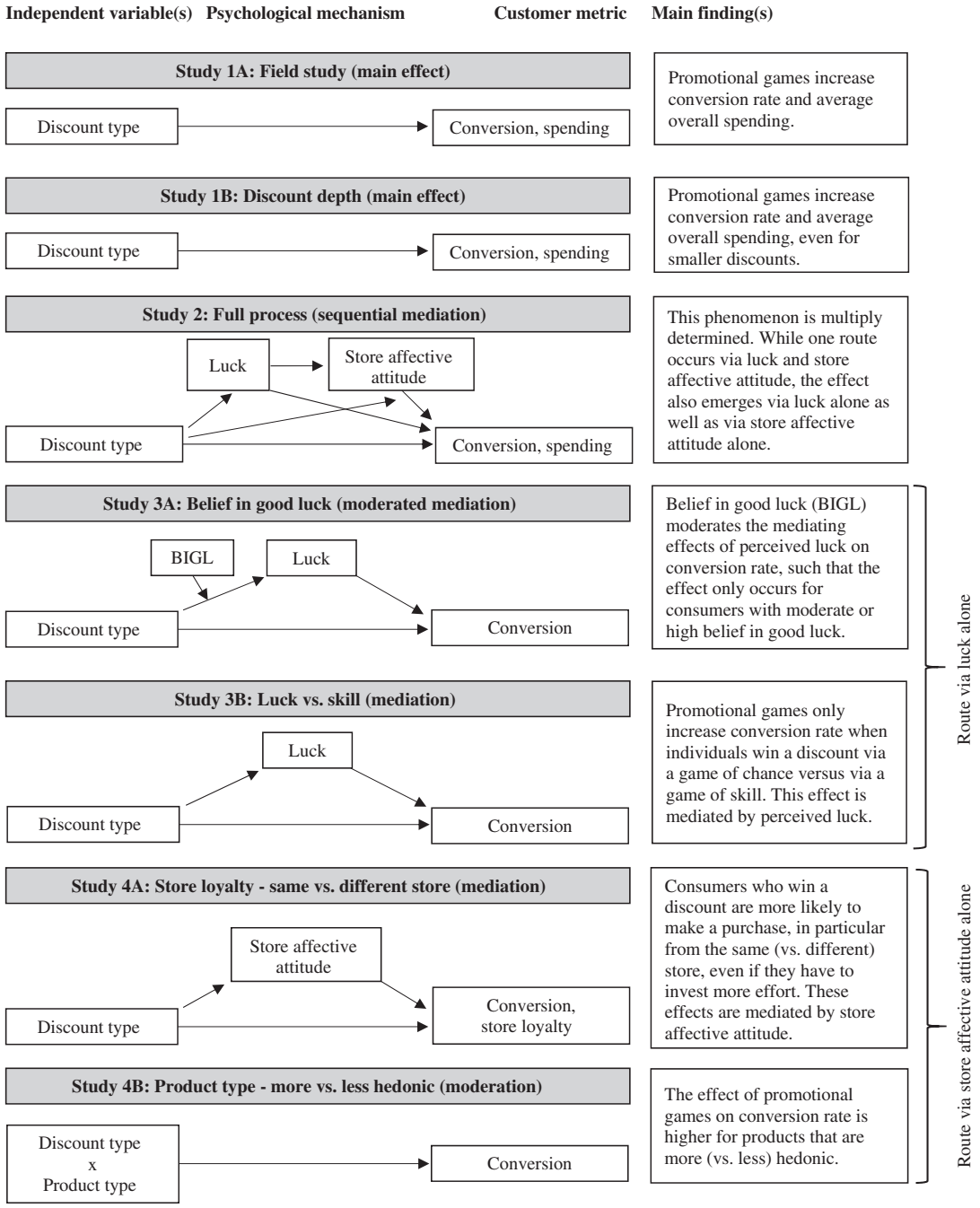
Consider an illustrative example. A marketing manager wants to find out if promotional games or straight discounts yield higher sales. She runs both promotions separately in two similar stores. Store A (game) has an average basket value of \$15 but a conversion rate of 20%. In contrast, Store B (straight) has a higher average basket value of \$20, but a lower conversion rate of 10%. While one might erroneously use average basket value to infer that using the straight discount is more beneficial (\$20 $>$ \$15), this analysis neglects the probability of making the purchase. If each store is visited by 1,000 customers that day, average overall spending (A: \$3 $=$ \$15 $\times$ .20 vs. B: \$2; \$20 $\times$ .10) and total sales (A: \$3,000 $=$ \$3 $\times$ 1,000 vs. B: \$2,000 $=$ \$2 $\times$ 1,000) would both be higher in store A. Therefore, average overall spending is likely to be more insightful and relevant for practitioners than average basket value.

Figure 1 presents an overview of our conceptual framework and studies. In study 1A (field experiment), we find that promotional games increase conversion rates and average overall spending, but not average basket value. In study 1B we demonstrate robustness by considering different discount depths. Indeed, while discounts on scratch tickets are often fixed (e.g., win 20%), sometimes they vary (e.g., win *up to* 30%). We show that even winning a smaller discount (e.g., 10%) leads to a higher conversion rate and average overall spending than receiving a higher straight discount (e.g., 20%), while average basket value remains unaffected.

In study 2 we show that this phenomenon is multiply determined. While one route occurs via luck and store affective attitude, the effect also emerges both via luck alone and via store affective attitude alone. In the remaining four studies, we analyze the two individual pathways through feelings of luck (3A, 3B) and store affective attitude (4A, 4B) in isolation to get a more nuanced understanding of the underlying processes, and to delineate theoretically driven boundary conditions for this novel effect.

FIGURE 1

THEORETICAL FRAMEWORK



With regard to the luck route, we show that the mediating effect of perceived luck on purchase behavior is moderated by consumers' belief in good luck (3A), and that perceptions of luck emerge only when consumers win a discount via a game of chance rather than via a game of skill (3B). With regards to the store affective attitude route, we show that consumers who win a discount are more likely to make a purchase from the same store as opposed

to a different store (4A), and that the effects are more pronounced for products that are more hedonic (4B).

Taken together, we demonstrate that winning in promotional games increases conversion rates and overall spending. We show that these effects are multiply determined—both luck and affect influence judgments. We also investigate the effects of two moderators: belief in luck and type of product (hedonic and utilitarian). As indicated previously, it may be important to note that even though we expect our effects to be more pronounced for more hedonic products (as shown in 4B), the effects should and do emerge for all kinds of products.

STUDY 1A: IMPACT OF PROMOTIONAL GAMES ON CONVERSION RATE AND SPENDING (FIELD STUDY)

The goal of the first study is to demonstrate the proposed main effect in the field. We collaborated with a midsized, US-based e-commerce company to offer discounts to their clientele, and assessed conversion rates and spending.

Participants, Method, and Design

One thousand seventy-three customers (M_{age} = 55.43, 93% female) of a midsized, US-based e-commerce company participated. This company specializes in interactive video tutorials that cost between $19.99 and $39.99. We employed a single-factor (discount type: straight vs. game) between-subjects design with a control condition (no discount). First, participants answered several questions about their typical usage of the website and their products, and provided demographic information. We thanked participants and then randomly exposed them to one of our three conditions (web appendix B).

Participants in all conditions were provided a link to the company's website and encouraged to check out the website for more information and purchase any tutorial they were interested in. In the two discount conditions participants received a discount code that allowed them to purchase any tutorial for $15. However, the process via which they received this discount differed. In the straight-discount condition, customers were provided with a discount code that they could use toward their purchase. Participants in the game-discount condition saw three doors and were asked to select one of the doors. They were informed that behind one of the doors would be a special offer. Unbeknownst to participants, all were winning doors. After selecting a door, they learned that they had won and, as in the straight-discount condition, were provided with a discount code they could use toward their purchase. In all three conditions, customers had seven days to make a purchase from the website. At the end of this period, we assessed whether customers had made a purchase and how much money they spent. Six participants completed the survey more than once and were therefore excluded from the analysis. We also excluded four outliers ($M + 3SD$; $M_{excluded}$ = $95.64); including these participants does not change the pattern of results. Thus, the final sample size is 1,063.

Results

Equivalence of Groups. Age (p = .539), gender (p = .101), spending history (p = .759), net promoter score (p = .225; Keiningham et al. 2007), geography (US vs. non-US, p = .793), income (p = .665), or year of registration (p = .841) did not differ across these groups, suggesting that the three groups were comparable.

Conversion Rate. A binary logistic regression with conversion rate (0 = no, 1 = yes) as dependent variable revealed a main effect of discount type (Wald χ^2 = 43.64, $p < .001$). Conversion rate in the game-discount condition ($M_{Game\text{-}Discount}$ = 26%, SD = .44) was marginally higher than in the straight-discount condition ($M_{Straight\text{-}Discount}$ = 20%, SD = .40; β = .33, Wald χ^2 = 3.29, p = .066, d = .14) and significantly higher than in the control condition ($M_{Control}$ = 6%, SD = .25; β = .82, Wald χ^2 = 43.62, $p <$ .001, d = .56). Conversion rate in the straight-discount condition was higher than in the control condition (β = 1.31, Wald χ^2 = 25.62, $p < .001$, d = .42).

Spending. We computed the total amount spent by each customer by adding the prices of all the products purchased. We used the regular undiscounted price in the control condition, but discounted prices (i.e., price actually paid) in the two discount conditions. We log-transformed the dollar amounts to obtain homogeneity in the error variance and used these in our analyses, but report regular means for expositional ease. We used the same approach in studies 1B and 2.

First, we compared average basket value across conditions to assess whether, among those purchasing, there is a spending bump in the game-discount condition. An ANOVA revealed that average basket value did not differ across the conditions ($M_{Game\text{-}Discount}$ = $19.23, SD = 8.50, N = 102 vs. $M_{Straight\text{-}Discount}$ = $17.39, SD = 6.15, N = 67 vs. $M_{Control}$ = $20.79, SD = 8.49, N = 22; $F(2, 188)$ = 1.99, p = .140). Thus, the game discount did not elicit a spending bump.

Second, we compared average overall spending across conditions, where we included both purchasers and nonpurchasers. An ANOVA elicited a main effect of discount type ($F(2, 1060)$ = 25.86, $p < .001$). Customers in the game-discount condition spent more money ($M_{Game\text{-}Discount}$ = $5.03, SD = 9.51) than those in the straight-discount ($M_{Straight\text{-}Discount}$ = $3.53, SD = 7.53; $F(1, 1060) = 4.64$, p = .031, d = .14) and those in the control condition ($M_{Control}$ = $1.33, SD = 5.52; $F(1, 1060)$ = 50.11, $p <$ .001, d = .55). Customers in the straight-discount condition

spent more than those in the control condition ($F(1, 1060) = 22.14$, $p < .001$, $d = .41$).

Discussion

Study 1A supports our proposed effect: promotional games increase purchase likelihoods. The subtlety of the game discount effects in this first study could potentially be explained by the fact that instructional videos are less hedonic. Interestingly, although average basket value did not differ, average overall spending was higher in the game-discount condition. Thus, our effects do not emerge because the same people are buying more, but because more people are buying. This finding is likely to be of importance to managers, as having a larger customer base is crucial for longer-term success (Blattberg et al. 2001; Villanueva et al. 2008). Using a simple promotional game could help to achieve this.

The goal of study 1B is twofold. First, we want to demonstrate robustness by showing that our effects do not depend on specific products; we use school merchandise in this study. Second, we seek to explore how discount depth affects behaviors. Sometimes the discounts offered vary (e.g., *up to* 30%) and the discount consumers receive depends on the ticket chosen. Would the discount depth (e.g., 10% vs. 30%) affect purchase behavior? What if the consumer picks a nonwinning ticket and gets no discount?

STUDY 1B: IMPACT OF PROMOTIONAL GAMES ON CONVERSION RATE AND SPENDING

Participants, Method, and Design

We recruited 368 students ($M_{age} = 26.10$, 66% female) from the directory of a large US public university. We asked participants to imagine that they were shopping for school merchandise in their university bookstore. To make the scenario more realistic, participants were informed that they could spend up to \$50 on school merchandise, and that we would randomly choose some participants who would actually receive the product(s) that they purchased and keep any remaining unspent money. Therefore, participants had to decide if they really wanted to buy the school merchandise. After the study, we randomly selected three winners. We excluded seven participants who spent more than the given \$50 ($M_{excluded} = \$56.06$); including them does not change the pattern of results. Thus, the final sample size is 361.

We randomly assigned participants to one of the following six conditions. In the first condition, straight-discount, participants were told that every customer receives 20% off their entire purchase that day. In the four game-discount conditions, they were told that they could choose one scratch ticket upon entering the store, and that a winning ticket could earn them up to 30% off their entire purchase that day. On the next screen, after selecting their scratch ticket, participants were informed that they won 10%, 20%, 30%, or no discount. In the control (no discount) condition, we did not mention any discount.

Next, we presented participants with 18 different university-branded items and asked them to choose the product(s) that they wished to purchase. Prices were clearly labeled, and ranged from \$3.98 to \$24.98. We included both more (e.g., picture frames) and less hedonic (e.g., notebooks) items, although some items could be assigned to either category (e.g., koozies). The products, pictures, and prices were adapted from the university bookstore's website. Participants first indicated whether they wanted to purchase any item(s), and if they chose "Yes," they were able to select their product(s).

After the participants chose the product(s) they wanted to purchase, we asked them how good they thought the quality of the items was (1 = Not good at all, 7 = Very good), how much they liked them (1 = Not much at all, 7 = A lot), how often they shop for such items (1 = Not often, 7 = Very often), and how much money per semester they typically spend on such items (in USD), and then recorded demographics.

Results

Conversion Rate. A binary logistic regression with conversion rate (0 = no, 1 = yes) as the dependent variable revealed a main effect of discount type (Wald $\chi^2 = 20.65$, $p < .001$); see figure 2A. Interestingly, participants were equally likely to make a purchase in the three winning discount conditions ($M_{\text{Game-Discount (10\%)}} = 50\%$, SD = .50 vs. $M_{\text{Game-Discount (20\%)}} = 52\%$, SD = .50 vs. $M_{\text{Game-Discount (30\%)}} = 53\%$, SD = .50) ($\beta = .06$, Wald $\chi^2 = .07$, $p = .708$). Thus, discount depth did not affect conversion rates. Furthermore, these conversion rates were all higher than those in the straight-discount, game-discount (0%), or control condition ($M_{\text{Straight-Discount}} = 35\%$, SD = .48 vs. $M_{\text{Game-Discount (0\%)}} = 25\%$, SD = .43 vs. $M_{\text{Control}} = 20\%$, SD = .40). Even the lowest conversion rate of the winning discount conditions (50% for 10% discount) was still 15% higher than in the straight-discount condition ($\beta = .31$, Wald $\chi^2 = 3.02$, $p = .082$, $d = .31$), 25% higher than in the game-discount (0%) condition ($\beta = 1.12$, Wald $\chi^2 = 7.49$, $p = .006$, $d = .54$), and 30% higher than in the control condition ($\beta = .46$, Wald $\chi^2 = 11.80$, $p = .001$, $d = .66$). Conversion rate in the game-discount (0%) condition did not differ from the control ($\beta = .13$, Wald $\chi^2 = .35$, $p = .556$, $d = .12$) or straight-discount condition ($\beta = -.50$, Wald $\chi^2 = 1.48$, $p = .224$, $d = .22$). Conversion rate in the straight-discount condition was 15% higher than in the control condition ($\beta = .76$, Wald $\chi^2 = 3.59$, $p = .058$, $d = .34$).

FIGURE 2A

CONVERSION RATES (IN PERCENTAGE) FOR SCHOOL MERCHANDISE (STUDY 1B)

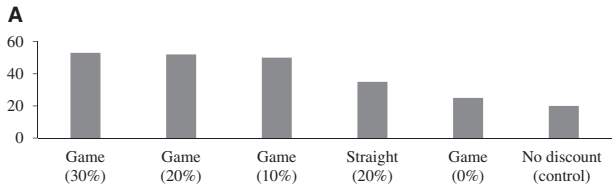
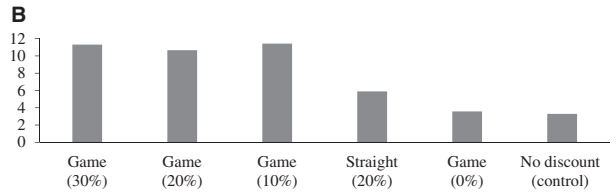


FIGURE 2B

AVERAGE OVERALL SPENDING (US$) FOR SCHOOL MERCHANDISE (STUDY 1B)



Spending. As in study 1A, average basket value did not differ across conditions ($M_{\text{Game-Discount (30\%)}} = \$21.16$, SD = 11.29, $N = 31$; $M_{\text{Game-Discount (20\%)}} = \$20.59$, SD = 12.00, $N = 29$; $M_{\text{Game-Discount (10\%)}} = \$22.83$, SD = 12.76, $N = 30$; $M_{\text{Game-Discount (0\%)}} = \$14.59$, SD = 8.21, $N = 13$; $M_{\text{Straight-Discount}} = \$16.93$, SD = 7.92, $N = 24$; $M_{\text{Control}} = \$16.43$, SD = 10.28, $N = 13$; $F(5, 134) = 1.60$, $p = .164$). Thus, game discounts did not elicit a spending bump.

However, average overall spending (spenders and nonspenders) differed across conditions ($F(5, 355) = 6.26$, $p < .001$); see figure 2B. Participants spent equal amounts of money in the three winning game-discount conditions ($M_{\text{Game-Discount (10\%)}} = \$11.42$, SD = 14.58 vs. $M_{\text{Game-Discount (20\%)}} = \$10.66$, SD = 13.46 vs. $M_{\text{Game-Discount (30\%)}} = \$11.31$, SD = 13.44) ($F(2, 171) = .06$, $p = .941$). These amounts were all higher than those in the straight-discount (20%), game-discount (0%), and control condition ($M_{\text{Straight-Discount}} = \$5.89$, SD = 9.34 vs. $M_{\text{Game-Discount (0\%)}} = \$3.58$, SD = 7.47 vs. $M_{\text{Control}} = \$3.29$, SD = 7.98). Even the spending for the lowest winning discount condition ($10.66, 20% discount) was still higher than that in the straight-discount ($F(1, 355) = 4.24$, $p = .040$, $d = .41$), the game-discount (0%) ($F(1, 362) = 9.98$, $p = .002$, $d = .65$), and the control condition ($F(1, 355) = 14.29$, $p < .001$, $d = .67$). Spending in the game-discount (0%) condition did not differ from the control ($F(1, 355) = .20$, $p = .653$, $d = .10$) or the straight-discount condition ($F(1, 355) = 1.64$, $p = .202$, $d = .25$). Spending in the straight-discount condition was marginally higher than that in the control condition ($F(1, 355) = 3.31$, $p = .069$, $d = .34$).

Robustness Checks. Participants did not differ with regards to quality perceptions ($p = .872$), thereby ruling out this factor as the driver of our results. Adding the individual difference variables age, gender, how often they shop for school merchandise, or how much they spend on school merchandise during a typical semester as covariates did not change the patterns of our results.

Discussion

The above results not only replicate study 1A's findings, but also reveal that even winning a lower discount (i.e., 10%) increases conversion rate and average overall spending relative to receiving a straight discount (i.e., 20%). Further, conversion rate and average overall spending for losing tickets do not differ from the discount (straight) and control conditions. This suggests that using a game format can be a dominant strategy, because games can generate higher conversion rates and average overall spending even when offering lower discounts.

The primary goal of study 2 is to hone in on the underlying process. We predict that the impact of promotional games on consumers' purchase behavior is multiply determined, where both perceived luck and store affective attitude play a role. The second goal is to rule out alternative explanations such as opportunism, involvement, and surprise, among others.

STUDY 2: PERCEIVED LUCK AND STORE AFFECTIVE ATTITUDE AS UNDERLYING MECHANISMS (SEQUENTIAL MEDIATION)

Participants, Method, and Design

We recruited 306 students ($M_{\text{age}} = 23.60$, 66% female) from the directory of a large US public university. As in study 1B, we asked participants to imagine that they were shopping for school merchandise in their university bookstore. Participants could spend up to $50 and their choice was binding. After the study, we randomly selected three winners to actually receive the merchandise they had indicated they wanted to purchase as well as the remainder in cash.

We randomly assigned participants to one of the following three conditions. In the first condition, straight-discount, participants were told that every customer would receive 25% off their entire purchase. In the second condition, game-discount, they were told that they could choose from a variety of scratch tickets upon entering the store, and that a winning ticket could earn them 25% off their entire purchase. On the next screen, after selecting their

scratch ticket, participants were informed that they won the 25% discount. Thus, both discount conditions offered a 25% discount on the entire purchase. In the control (no discount) condition, we did not mention any discount.

Next, we presented participants with the same 18 different university-branded items from study 1B and asked them to choose the product(s) that they wished to purchase. Participants first indicated whether they wanted to purchase any item(s) (Yes, No), and if they chose "Yes," they were able to select their product(s).

After that, we measured our two mediators, perceptions of luck and store affective attitude, as well as general positive affect. We adapted a five-item measure from Darke and Freedman's (1997b) "Belief in Good Luck" scale to measure luck ("I'm having good luck right now," "Luck is working in my favor right now," "I feel like it's my lucky day today," "I'm feeling lucky right now," "Today is my lucky day"; all from 1 = Strongly disagree, 7 = Strongly agree; $\alpha = .96$). For both positive affect measures, we used the 10 positive affect items from the PANAS scale (Watson, Clark and Tellegan 1988); however, we changed what the subject of this affect was. When measuring *store affective attitude*, we asked respondents to indicate current feelings toward the store based on their experience in this study ($\alpha = .96$), whereas when indicating *general affect*, we asked respondents to indicate how they currently felt in general ($\alpha = .93$). We counterbalanced these two scales to ensure that their order did not influence responses.

A principal component factor analysis with Varimax rotation of the two main constructs (store affective attitude, general positive affect) revealed the expected two-factor solution, which explained 69.55% of the total variance. To establish discriminant validity among the two constructs, we performed a confirmatory factor analysis. For each construct, the average variance extracted (AVE) exceeded .50 (general positive affect = .74, store affective attitude = .62). Fornell-Larcker (1981) tests also revealed that the AVE was higher than the shared variance between constructs. Web appendices D and E contain details.

To rule out alternative explanations, we measured opportunism ("I wanted to take advantage of the opportunity that presented itself," "The opportunity was just too good to pass up," "I didn't want to waste the opportunity"), and involvement ("The task was involving/motivating/interesting/exciting") for all three conditions (all 1 = Strongly disagree, 7 = Strongly agree), and surprise ("How surprising/unexpected was the discount from the bookstore?"; both 1 = Not at all, 7 = Very) for the two discount conditions.

Last, similar to study 1B, we measured quality of the merchandise, how much they liked the items, how often they shop for such items, and how much money per semester they typically spend on such items (in USD), and recorded demographics.

Results

Conversion Rate. A binary logistic regression revealed a main effect of discount type (Wald $\chi^2 = 21.91$, $p < .001$). Conversion rate in the game-discount condition ($M_{\text{Game-Discount}} = 42\%$, SD = .50) was higher than in the straight-discount ($M_{\text{Straight-Discount}} = 24\%$, SD = .43; $\beta = .84$, Wald $\chi^2 = 7.36$, $p = .007$, $d = .39$) and in the control condition ($M_{\text{Control}} = 13\%$, SD = .33; $\beta = .82$, Wald $\chi^2 = 20.73$, $p < .001$, $d = .69$). Conversion rate in the straight-discount condition was higher than in the control condition ($\beta = .79$, Wald $\chi^2 = 4.41$, $p = .036$, $d = .29$).

Spending. As in studies 1A and 1B, average basket value did not differ across conditions ($M_{\text{Game-Discount}} = \$13.30$, SD = 6.35, $N = 43$; $M_{\text{Straight-Discount}} = \$10.92$, SD = 5.40, $N = 24$; $M_{\text{Control}} = \$11.29$, SD = 4.84, $N = 13$) ($F(2, 77) = 1.65$, $p = .199$). Thus, the game discount did not elicit a spending bump.

However, average overall spending (spenders and nonspenders) differed across conditions ($F(2, 303) = 13.44$, $p < .001$). Participants spent more money in the game-discount condition ($M_{\text{Game-Discount}} = \$5.61$, SD = 7.77) than those in the straight-discount ($M_{\text{Straight-Discount}} = \$2.62$, SD = 5.36; $F(1, 303) = 10.31$, $p = .001$, $d = .45$) and in the control condition ($M_{\text{Control}} = \$1.41$, SD = 4.10; $F(1, 303) = 26.33$, $p < .001$, $d = .68$). Participants in the straight-discount condition spent marginally more than those in the control condition ($F(1, 303) = 3.53$, $p = .061$, $d = .18$).

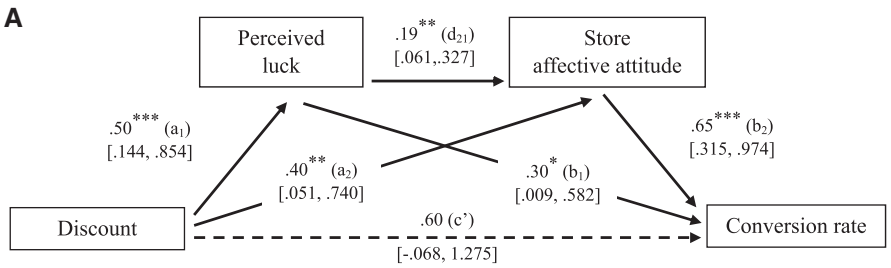
Perceived Luck. An ANOVA elicited a marginal main effect ($F(2, 303) = 2.60$, $p = .076$). Participants in the game-discount condition ($M_{\text{Game-Discount}} = 4.39$, SD = 1.25) felt luckier than those in the straight-discount ($M_{\text{Straight-Discount}} = 3.96$, SD = 1.45; $F(1, 303) = 3.96$, $p = .048$, $d = .32$) and in the control condition ($M_{\text{Control}} = 3.97$, SD = 1.89; $F(1, 303) = 3.83$, $p = .051$, $d = .27$). Straight-discount and control condition did not differ ($F(1, 303) = .002$, $p = .959$, $d = .005$).

Store Affective Attitude. An ANOVA elicited a main effect ($F(2, 303) = 3.13$, $p = .045$). Participants in the game-discount condition ($M_{\text{Game-Discount}} = 4.14$, SD = 1.28) indicated higher store affective attitude than those in the straight-discount ($M_{\text{Straight-Discount}} = 3.71$, SD = 1.36; $F(1, 303) = 4.65$, $p = .032$, $d = .32$) and in the control condition ($M_{\text{Control}} = 3.71$, SD = 1.56; $F(1, 303) = 4.73$, $p = .030$, $d = .30$). Straight-discount and control condition did not differ ($F(1, 303) = .000$, $p = .998$, $d = .000$).

General Positive Affect. An ANOVA revealed that participants did not differ with regards to general positive affect ($M_{\text{Game-Discount}} = 4.43$, SD = 1.18 vs. $M_{\text{Straight-Discount}} = 4.59$, SD = 1.20 vs. $M_{\text{Control}} = 4.45$, SD = 1.46; $F(2, 303) = .469$, $p = .626$).

FIGURE 3A

SEQUENTIAL MEDIATION OF CONVERSION RATE (STUDY 2)



Indirect effects: $a_1 \rightarrow d_{21} \rightarrow b_2$: .06** [.002, .182] / $a_1 \rightarrow b_1$: .15** [.004, .380] / $a_2 \rightarrow b_2$: .26** [.023, .586]

Sequential Mediation (Conversion Rate). Our theory predicts that the impact of promotional games on conversion rate is mediated by perceived luck and store affective attitude in sequence. We employed the SPSS bootstrapping macro developed by Hayes (2017, model 6) with 5,000 bootstrap samples, which can now accommodate dichotomous dependent measures. The path from discount condition (0 = straight, 1 = game) to conversion rate (0 = no, 1 = yes), controlling for general positive affect, was significantly mediated by perceived luck (β = .30, SE = .15) and store affective attitude (β = .65, SE = .17), as the 95% CI for this indirect effect excluded zero (.002, .182). The impact of discount type became only marginally significant when the two mediators were added (β = .60, SE = .34, p = .078). General positive affect did not have an impact on conversion rate (β = .07, SE = .17, p = .709). The pattern of effects persists even when the influence of general positive affect is not controlled for (95% CI: .009, .223). Using general positive affect as sequential mediator (95% CI: –.001, .108) and changing the order of the two mediators (95% CI: –.001, .114) yielded nonsignificant indirect effects.

Further, as hypothesized, the two mediations via perceived luck (discount type → perceived luck → conversion rate) and store affective attitude (discount type → store affective attitude → conversion rate) were also significant, as the 95% CI for these indirect effects excluded zero ([.004, .380] and [.023, .586], respectively); see figure 3A and web appendix F for more details and additional analyses.

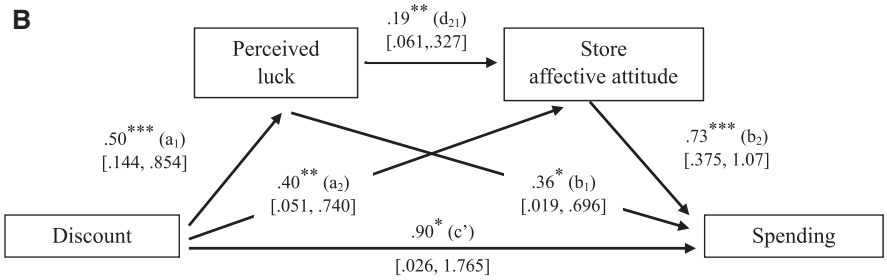
Sequential Mediation (Average Overall Spending). Likewise, the path from discount condition (0 = straight, 1 = game) to average overall spending (log-transformed dollar amounts) was significantly mediated by perceived luck (β = .90, SE = .17) and store affective attitude (β = .73, SE = .18), as the 95% CI for this indirect effect excluded zero (.003, .190). The impact of discount type became weaker but remained significant when the two mediators were added (β = .90, SE = .44, p = .044). General positive affect did not have a significant impact on average spending (β = .12, SE = .20, p = .559). The pattern of effects persists even when the influence of general positive affect is not controlled for (95% CI: .010, .024). Using general positive affect as the sequential mediator (95% CI: –.002, .127) and changing the order of the two mediators (95% CI: .000, .133) yielded nonsignificant indirect effects.

Further, as hypothesized, two mediations via perceived luck (discount type → perceived luck → average overall spending) and store affective attitude (discount type → store affective attitude → average overall spending) were also significant, as the 95% CI for these indirect effects excluded zero ([.015, .442] and [.033, .600], respectively); see figure 3B and web appendix F for more details and additional analyses.

Robustness Checks. Participants in the two discount conditions did not differ with regard to opportunism (α = .94, p = .321), involvement (α = .90, p = .117), perceived quality (p = .210), or liking of the merchandise (p = .409), thereby ruling out these factors as drivers of our results. Participants differed with regard to how surprised they were to receive the discount (α = .83, p = .023; $M_{\text{Discount (Game)}}$ = 3.33 vs. $M_{\text{Discount (Straight)}}$ = 2.79). However, this factor did not mediate our results (i.e., discount type → surprise → conversion rate [95% CI: –.016, .231]). Adding the individual difference variables age, gender, and how often they shop for or spend on merchandise during a typical semester as covariates did not change the patterns of our results.

FIGURE 3B

SEQUENTIAL MEDIATION OF AVERAGE OVERALL SPENDING (STUDY 2)



Indirect effects: $a_1 \rightarrow d_{21} \rightarrow b_2$: .070** [.003, .190] / $a_1 \rightarrow b_1$: .18** [.015, .442] / $a_2 \rightarrow b_2$: .29** [.033, .600]

Discussion

The above results confirm our theorized process. The impact of promotional games on conversion rate and average overall spending is multiply determined by a combination of perceived luck and store affective attitude. We also rule out other explanations for our effects, such as opportunism, involvement, and surprise, among others.

In the next two studies, we focus on a singular pathway: luck. This allows us to hone in on the process and delineate theoretically driven boundary conditions. In study 3A we test whether individual differences in belief in good luck (Darke and Freedman 1997b) moderate the mediating effects of perceived luck on conversion rate.

STUDY 3A: BELIEF IN GOOD LUCK AS PROCESS MODERATOR

Participants, Method, and Design

We recruited 209 students (M_{age} = 24.61, 69% female) from the directory of a large US public university. We asked participants to imagine that they had bought a few fall decorations from a nearby store (adopted from Pier 1's website; see web appendix G). After they paid for their items, we randomly assigned participants to one of three conditions: control (no discount), straight-discount, or game-discount. In both discount conditions, participants received a 20% discount coupon for their next purchase at this store.

Next, participants read that on their way out of the store, they see a maple leaf 10 foot LED glimmer string for $20 that would complement the other fall decoration items that they just purchased. Participants then indicated if they would buy this (Yes, No).

After that, we measured perceived luck and belief in good luck. For both constructs, we used five items adapted from Darke and Freedman (1997b). However, while the measures of perceived luck relate to current (state) perceptions ("I'm having good luck *right now*," "Luck is working in my favor *right now*," "I feel like it's my lucky day *today*," "I'm feeling lucky *right now*," "*Today* is my lucky day"; α = .95), the belief in good luck scale measures chronic (trait) perceptions ("I consistently have good luck," "Luck works in my favor," "I believe in luck," "I consider myself to be a lucky person," "I often feel like it's my lucky day"; all from 1 = Strongly disagree, 7 = Strongly agree; α = .81). We counterbalanced both scales to rule out the possibility that participants' current perception of luck influences their general belief in good luck. A principal component factor analysis with Varimax rotation of the two main constructs (current and chronic belief in luck items) revealed the expected two-factor solution, which explained 71.59% of the total variance. To establish discriminant validity among the two constructs, we performed a confirmatory factor analysis. For each construct, the AVE exceeded .50 (perceived luck = .81, belief in good luck = .54). Fornell-Larcker (1981) tests also revealed that the AVE was higher than the shared variance between constructs. The correlation coefficient between both factors was .42 ($p < .001$), but multicollinearity is not an issue in this study (see web appendix H for more details).

After that, as in our previous studies, we measured quality of the LEDs, how often participants buy seasonal home decorations, and how much money they typically spend on these items per year (in USD), and recorded demographics.

Results

Conversion Rate. A binary logistic regression revealed a main effect of discount type (Wald χ^2 = 15.46, $p <$ .001). Conversion rate in the game-discount condition ($M_{Game\text{-}Discount}$ = 62%, SD = .49) was higher than in the

straight-discount ($M_{\text{Straight-Discount}} = 44\%$, SD = .50; β = .74, Wald $\chi^2 = 4.70$, $p = .003$, $d = .36$) and in the control condition ($M_{\text{Control}} = 28\%$, SD = .45; β = .72, Wald $\chi^2 = 15.35$, $p < .001$, $d = .72$). Conversion rate in the straight-discount condition was higher than in the control condition (β = .71, Wald $\chi^2 = 3.83$, $p = .050$, $d = .34$).

Perceived Luck. An ANOVA elicited a main effect ($F(2, 206) = 5.21$, $p = .006$). Participants in the game-discount condition ($M_{\text{Game-Discount}} = 3.82$, SD = 1.37) felt luckier than those in the straight-discount ($M_{\text{Straight-Discount}} = 3.08$, SD = 1.37; $F(1, 206) = 10.30$, $p = .002$, $d = .55$) and in the control condition ($M_{\text{Control}} = 3.37$, SD = 1.44; $F(1, 206) = 3.59$, $p = .006$, $d = .32$). Straight-discount and control condition did not differ ($F(1, 206) = 1.51$, $p = .220$, $d = .21$).

Moderated Mediation. In order to test whether individual differences in belief in good luck moderate the mediating effects of perceived luck on conversion rate, we employed the SPSS bootstrapping macro developed by Hayes (2017, model 7) with 5,000 bootstrap samples. As predicted, the index of moderated mediation was significant (95% CI: .022, .446), indicating that belief in good luck moderated the mediation through perceived luck. Specifically, while the indirect effect for individuals with low belief in good luck was nonsignificant (β = –.12, SE = .11; 95% CI: –.359, .051), the indirect effects for individuals with medium (β = .14, SE = .10; 95% CI: .002, .364) and high belief in good luck (β = .41, SE = .20; 95% CI: .047, .855) were significant. Furthermore, the direct effect of discount type became nonsignificant when the mediator was added (β = .56, SE = .35; 95% CI: –.135, 1.249); see figure 4.

Robustness Checks. Participants in the two discount conditions did not differ with regard to perceived quality ($p = .254$). Adding the individual difference variables age, gender, and how often they shop for or how much they spend on seasonal home decorations during a typical year as covariates did not change the patterns of our results.

Discussion

These results not only help identify a boundary condition, but also confirm our theorized process. Indeed, if one pathway through which promotional games impact conversion rates is perceived luck, then these effects should emerge only for those who believe in luck. Consistent with this, we find that our effects emerge for those who moderately or highly believe in good luck, but not for those whose beliefs are weak. Thus, belief in good luck moderates the mediating effects of perceived luck on conversion rate. The goal of study 3B is to show that chance and luck play a critical role in our results. If luck is integral to our process, then these effects should emerge only when individuals win a discount via a game of chance, but not when the discount is won via skill, which cannot be attributed to chance.

STUDY 3B: LUCK VS. SKILL AS PROCESS MODERATOR

Participants, Method, and Design

One hundred ninety-four undergraduate students ($M_{\text{age}} = 24.06$, 47% female) of a large US public university participated in this study for partial course credit. We asked participants to imagine that they were walking into the university's bookstore.

We then randomly assigned participants to one of three conditions. In the skill-discount condition, participants learned that the bookstore had a special promotion for "Math Awareness Month." If they solved a brief math problem correctly, they would get 25% off a single item that day. The task was to calculate 20% of 38,000 without a calculator. In the skill-discount condition, 82% of participants answered correctly and received the 25% coupon. The remaining 18% did not answer the question correctly so did not receive the 25% coupon and were therefore excluded from the analysis. In the game-discount condition, participants were allowed to choose from a variety of scratch tickets. A winning ticket would earn them 25% off a single item that day. On the next screen, after selecting their scratch ticket, participants were informed that they won the 25% discount. In the control (no discount) condition, we did not mention any discount.

On the next screen, we told participants: "As you walk through the store, you see an Under Armour water bottle for $15 (see web appendix I). Would you buy it for $15 [control]/$11.25 [both discount conditions] (Yes, No)?" To make the scenario more realistic, we told them that their choice was binding. After the study, we randomly selected three winners, who received their chosen alternative ($15 or water bottle).

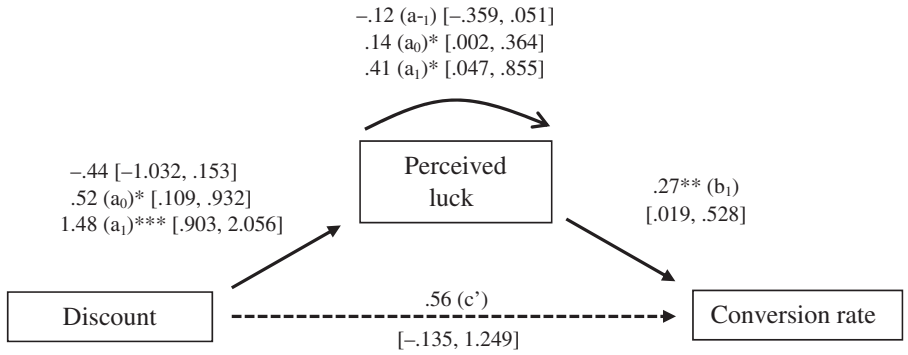
Next, we assessed participants' perceptions of luck (same five-item measure as in studies 2 and 3A; α = .95). Last, as in previous studies, we asked participants about the quality of the water bottle, whether they currently owned a water bottle (Yes, No), how much they liked Under Armour products, and how often they buy Under Armour products, and recorded demographics.

Results

Conversion Rate. A binary logistic regression revealed a main effect of discount type (Wald $\chi^2 = 12.21$, $p < .001$). Conversion rate in the game-discount condition ($M_{\text{Game-Discount}} = 27\%$, SD = .45) was higher than in the skill-discount ($M_{\text{Skill-Discount}} = 13\%$, SD = .34; β = .86, Wald $\chi^2 = 3.58$, $p = .058$, $d = .35$) and in the control condition ($M_{\text{Control}} = 3\%$, SD = .18; β = 1.19, Wald $\chi^2 = 9.53$, $p = .002$, $d = .70$). Conversion rate in the skill-

FIGURE 4

MODERATED MEDIATION OF CONVERSION RATE (STUDY 3A)



NOTE.—Perceived luck mediated the effect of discount type on conversion rate, but the mediation was moderated by belief in good luck. The three parameter estimates on the left of the figure indicate the conditional effects of discount type on perceived luck at the mean (a_0) and plus/minus one SD from the mean (a_1/a_{-1}) of belief in good luck. Numbers annotating curved arrows indicate indirect effects. Dashed lines indicate paths that are not statistically significant. Bracketed numbers indicate 95% CIs. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

discount condition was marginally higher than in the control condition ($\beta = 1.52$, Wald $\chi^2 = 3.59$, $p = .058$, $d = .37$).

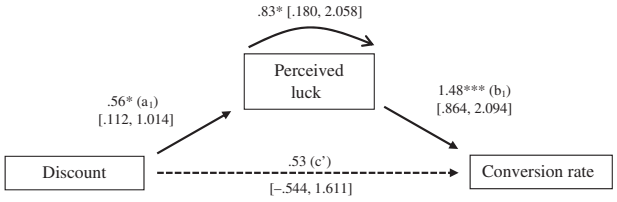
Perceived Luck. An ANOVA elicited a significant main effect ($F(2, 191) = 3.60$, $p = .029$). Participants in the game-discount condition ($M_{\text{Game-Discount}} = 4.37$, SD = 1.27) felt luckier than those in the skill-discount ($M_{\text{Skill-Discount}} = 3.80$, SD = 1.34; $F(1, 191) = 5.56$, $p = .019$, $d = .44$) and in the control condition ($M_{\text{Control}} = 3.81$, SD = 1.49; $F(1, 191) = 5.25$, $p = .023$, $d = .40$). Skill-discount and control condition did not differ ($F(1, 191) = .00$, $p = .99$, $d = .01$).

Mediation. Our theory predicts that conversion rate will be higher in the game-discount condition than in the skill-discount condition, and that perceived luck is one route via which these effects emerge. We employed the SPSS bootstrapping macro developed by Hayes (2017, model 4) with 5,000 bootstrap samples. The path from discount (0 = skill, 1 = game) to conversion rate (0 = no, 1 = yes) was significantly mediated by perceived luck ($\beta = 1.48$, SE = .31), as the 95% CI for the indirect effect excluded zero (.180, 2.058). The impact of discount type became nonsignificant when the mediator was added ($\beta = .53$, SE = .55, $p = .332$); see figure 5.

Robustness Checks. Participants in the two discount conditions did not differ with regard to perceived quality ($p = .674$). Adding the individual difference variables age, gender, whether participants currently owned a water bottle, how much they like Under Armour, or how often they buy Under Armour products did not change the patterns of our results.

FIGURE 5

MEDIATION OF CONVERSION RATE (STUDY 3B)



NOTE.—Perceived luck mediated the effect of discount type on conversion rate. Numbers annotating curved arrow indicates indirect effect. Dashed lines indicate paths that are not statistically significant. Bracketed numbers indicate 95% CIs. $^{*}p < .05$, $^{***}p < .001$.

Discussion

These results confirm our theorized process. Our proposed effects via luck emerge only when individuals win a discount via a game of chance rather than via their skills. As expected, winning a skill-based discount does not boost perceptions of luck and therefore does not increase conversion rates.

After focusing on one of the pathways, luck, in the previous two studies, we focus on the other pathway, store affective attitude, in the remaining two studies. This allows us to hone in on this particular process and delineate theoretically driven boundary conditions. The goal of study 4A is to show our effects on other practically relevant outcomes. If the increase in conversion rate and spending

occurs via store affective attitude, then customers who win a discount may also be more loyal to the store. In other words, they may be more likely to make a purchase from the same store, even if they have to invest more effort. We use a scenario approach to test this.

STUDY 4A: STORE LOYALTY AS PRACTICALLY RELEVANT OUTCOME (MEDIATION)

Participants, Method, and Design

We recruited 277 students (M_{age} = 25.61, 67% female) from the directory of a large US public university. We asked participants to imagine that they bought a few fall decorations at a nearby outlet center (adopted from Pier 1's website; see web appendix J). After they paid for their items, we randomly assigned participants to one of three conditions: control (no discount), straight-discount, or game-discount. Participants received a 20% off coupon in both discount conditions. However, unlike in our previous studies, in this study they could use the discount *at any store in the outlet center* that day. Thus, consumers did not have to make a purchase at the store that provided the discount.

Next, we told participants: "You're almost back to your car when you realize that you forgot to buy a fall-scented candle that you wanted, similar to the one below. You know that there are two stores that offer these kinds of candles; both are highlighted on the center map below. Store 1 is the store from which you just bought all the other items and you got the coupon [in the control condition we did not mention any discount]. That store is about 300 feet from where you currently are. Store 2 is about 180 feet from where you currently are. Both stores offer products of similar price and quality. Would you go back to one of the stores and buy the candle?" (Yes, No; see web appendix J). This allowed us to compute conversion rate. On the next screen, participants who responded "Yes" saw the map again and were able to click on the store they would go to (same vs. different). This allowed us to assess store loyalty. In order to assess whether participants' store choice was mediated by store affective attitude, we assessed their current feelings toward store 1 (10 positive affect items from PANAS scale; $\alpha = .94$).

Participants in both discount conditions indicated where they could use the 20% coupon (store 1 only vs. any store in the outlet center). After that, participants indicated how much they minded walking and liked candles in general (both 1 = Not much at all, 7 = Very much). They also indicated how much money they typically spend on seasonal home decorations per year (in USD) and reported demographics.

Results

Conversion Rate. A binary logistic regression revealed a main effect of discount type (Wald $\chi^2 = 19.26$, $p < .001$). Conversion rate in the game-discount condition ($M_{Game\text{-}Discount} = 93\%$, SD = .25) was higher than in the straight-discount ($M_{Straight\text{-}Discount} = 82\%$, SD = .39; $\beta = 1.12$, Wald $\chi^2 = 4.97$, $p = .026$, $d = .34$) and in the control conditions ($M_{Control} = 66\%$, SD = .48; $\beta = .98$, Wald $\chi^2 = 16.94$, $p < .001$, $d = .71$). Conversion rate in the straight-discount condition was higher than in the control condition ($\beta = .85$, Wald $\chi^2 = 5.96$, $p = .015$, $d = .37$).

Store Loyalty. A binary logistic regression revealed a main effect of discount type ($\beta = .89$, Wald $\chi^2 = 15.09$, $p < .001$). More participants in the game-discount condition ($M_{Game\text{-}Discount} = 38\%$, SD = .49) indicated they were willing to walk further to the store that provided the discount than in the straight-discount ($M_{Straight\text{-}Discount} = 19\%$, SD = .40; $\beta = .95$, Wald $\chi^2 = 6.78$, $p = .009$, $d = .42$) and in the control condition ($M_{Control} = 10\%$, SD = .30; $\beta = .86$, Wald $\chi^2 = 12.72$, $p = .001$, $d = .68$). Straight-discount and control condition did not differ ($\beta = .78$, Wald $\chi^2 = 2.28$, $p = .131$, $d = .25$).

Store Affective Attitude. An ANOVA elicited a main effect ($F(2, 274) = 9.36$, $p < .001$). Participants in the game-discount condition ($M_{Game\text{-}Discount} = 4.82$, SD = 1.13) indicated higher store affective attitude for the store that provided the discount than in the straight-discount ($M_{Straight\text{-}Discount} = 4.33$, SD = 1.24; $F(1, 274) = 7.38$, $p = .007$, $d = .40$) and in the control condition ($M_{Control} = 4.04$, SD = 1.29; $F(1, 274) = 18.33$, $p < .001$, $d = .62$). Straight-discount and control condition did not differ ($F(1, 274) = 2.58$, $p = .110$, $d = .23$).

Mediation (Conversion Rate). We employed the SPSS bootstrapping macro developed by Hayes (2017, model 4) with 5,000 bootstrap samples. In line with our previous findings, the path from discount condition to conversion was significantly mediated by store affective attitude ($\beta = .19$, SE = .13), as the 95% CI for this indirect effect excluded zero (.007, .506).

Mediation (Store Loyalty). More importantly, store affective attitude is also responsible for store loyalty. We employed the SPSS bootstrapping macro developed by Hayes (2017, model 4) with 5,000 bootstrap samples. The path from discount condition to store choice (0 = different, 1 = same) was significantly mediated by store affective attitude ($\beta = .34$, SE = .16), as the 95% CI for this indirect effect excluded zero (.003, .426); see figure 6.

Robustness Checks. Participants in both discount conditions were equally likely to know where they could use the discount ($p = .719$). Adding the individual difference variables age, gender, how much participants mind walking, how much they like candles in general, or how much

they typically spend per year on seasonal decorations as covariates did not change the pattern of results.

Discussion

These results document one practically relevant downstream consequence of store affective attitude. If promotional games induce store affective attitude, then customers should be more loyal to the store and should be willing to go out of their way to return to the store after winning the discount. These results are consistent with our theory and cohere well with the notion of building brand equity. Indeed, positive store affective attitude should engender greater loyalty and help build brand equity. However, we would like to caution readers that we used a scenario approach in this study, and future research should provide more conclusive support to document whether consumers are actually willing to expend real effort post-winning.

The goal of our final study is to delineate a boundary condition. Because winning in promotional games relative to receiving a straight discount increases store affective attitude, these games should be effective for all product categories. However, promotions that are more hedonic/affective should be more effective for products purchased based on affective considerations (Chandon et al. 2000), so the effectiveness of these promotions may be greater for more hedonic products. Consequently, we expect the effect of promotional games on conversion rate to be higher for more hedonic products.

STUDY 4B: PRODUCT TYPE AS PROCESS MODERATOR

Participants, Method, and Design

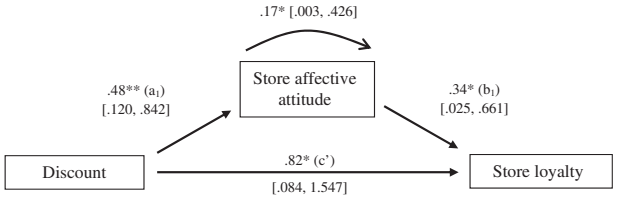
We recruited 518 students (M_{age} = 25.41, 66% female) from the directory of a large US public university. This study employed a 2 (product type: more vs. less hedonic) × 3 (discount: no, straight, game) between-subjects design with random assignment. We asked participants to imagine that they were at a store and see a $25 gift card for Starbucks (more hedonic) or Barnes & Noble (less hedonic). To make the scenario more realistic, we again told participants that their choice was binding. After the study, we randomly selected three winners.

Next, we randomly assigned participants to one of three conditions: control (no discount), straight-discount, or game-discount. In both discount conditions, participants received a 20% off coupon and were assured that the discount also applied to gift cards. Participants' decision to buy the gift card (Yes, No) served as our dependent variable.

After that we assessed participants' perceptions of the gift cards ("How would you rate the products that you can buy at Starbucks or Barnes & Noble?" [1 = Utilitarian, 7 = Hedonic]; both terms were explained beforehand), asked participants how often they buy anything from Starbucks or Barnes & Noble (1 = Not often at all, 7 = Very often), and recorded demographics.

FIGURE 6

MEDIATION OF STORE LOYALTY (STUDY 4A)



NOTE.—Store affective attitude mediated the effect of discount type on store loyalty. Numbers annotating curved arrows indicate indirect effects. Dashed lines indicate paths that are not statistically significant. Bracketed numbers indicate 95% CIs. $^{*}p < .05$, $^{**}p < .01$.

Results

Manipulation Check. An ANOVA using the evaluation of the product type as dependent variable, and product type and discount type as independent variables, revealed a significant main effect for product type ($F(1, 512) = 19.11$, $p < .001$). Participants perceived Starbucks products as more hedonic ($M_{Starbucks} = 5.00$, SD = 1.84 vs. $M_{Barnes\ \&\ Noble} = 4.29$, SD = 1.85). Discount type ($p = .714$) and the product type × discount type interaction ($p = .145$) were both not significant. Thus, our manipulation of product type was successful.

Conversion Rate. A binary logistic regression with conversion rate (0 = no, 1 = yes) as the dependent variable, and product type and discount type as independent variables, revealed a main effect for discount type (Wald $\chi^2 = 21.20$, $p < .001$), but not for product type ($\beta = 1.10$, Wald $\chi^2 = 1.77$, $p = .184$). Conversion rate in the game-discount conditions ($M_{Game\text{-}Discount} = 47\%$, SD = .50) was higher than in the straight-discount ($M_{Straight\text{-}Discount} = 24\%$, SD = .43; $\beta = 1.39$, Wald $\chi^2 = 19.13$, $p < .001$, $d = .49$) and in the control condition ($M_{Control} = 3\%$, SD = .18; $\beta = 2.06$, Wald $\chi^2 = 52.69$, $p < .001$, $d = 1.17$). Conversion rate in the straight-discount condition was higher than in the control condition ($\beta = 2.73$, Wald $\chi^2 = 23.06$, $p < .001$, $d = .64$).

Most importantly, the main effect of discount type was qualified by the significant discount type × product type interaction ($\beta = -.70$, Wald $\chi^2 = 4.54$, $p = .033$); see figure 7. For both control ($\beta = .72$, Wald $\chi^2 = .66$, $p = .415$, $d = .16$) and straight-discount conditions ($\beta = -.28$, Wald $\chi^2 = .59$, $p = .443$, $d = .14$), there was no significant

difference between the more and less hedonic gift cards. However, in the game-discount conditions, there was a significant difference ($\beta = -.99$, Wald $\chi^2 = 10.24$, $p = .001$, $d = .49$), such that conversion rate was higher in the more hedonic condition. Looking at the differences between discount levels at each level of product type, we find the effect of game discounts to be weaker for less hedonic products. For more hedonic products, conversion rate was 32% higher than in the straight-discount condition ($\beta = 1.39$, Wald $\chi^2 = 17.69$, $p < .001$, $d = .69$) and 57% higher than in control condition ($\beta = 2.06$, Wald $\chi^2 = 30.34$, $p < .001$, $d = 1.57$). Conversion rate in the straight-discount condition was higher than in the control condition ($\beta = 2.73$, Wald $\chi^2 = 12.99$, $p < .001$, $d = .76$). For less hedonic products, conversion rate was only 14% higher than in the straight-discount ($\beta = .67$, Wald $\chi^2 = 3.77$, $p = .052$, $d = .31$) and only 30% higher than in the control condition ($\beta = 1.20$, Wald $\chi^2 = 18.58$, $p < .001$, $d = .81$). Conversion rate in the straight-discount condition was higher than in the control condition ($\beta = 1.73$, Wald $\chi^2 = 9.03$, $p = .003$, $d = .49$).

Robustness Checks. Adding the individual difference variables age, gender, and how often participants buy something from Starbucks and Barnes & Noble as covariates did not change the patterns of our results.

Discussion

The above results demonstrate that the impact of promotional games on conversion rate is more pronounced for products that are more hedonic than for products that are less hedonic. This is quite consistent with and supports our suggested process: if promotional games induce positive affect, then products that are purchased via an affective process should see a greater increase in purchase likelihood. This is exactly what we find.

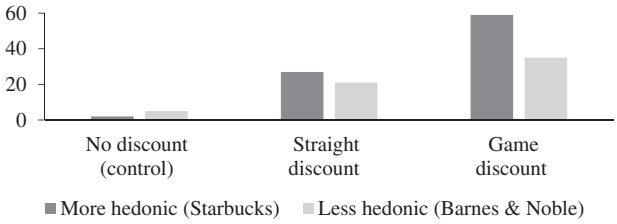
GENERAL DISCUSSION

Promotional games are used quite frequently in the marketplace and have garnered considerable academic scrutiny over the years (McDaniel 2002; Mogelefsky 2000). Prior research has investigated various facets of these games, including how individual differences (Briley et al. 2018; Fang and Mowen 2009) and game format (Alavi et al. 2015; Goldsmith and Amir 2010; Kalra and Shi 2010; Laran and Tsiros 2013; Ward and Hill 1991) affect game participation and evaluation. However, prior research does not offer insights on what the consequences of winning in promotional games are and why. We provide some insights.

We show that winning in promotional games (vs. receiving a straight discount) influences both self-beliefs (luck) and source beliefs (positive store attitude) and together these lead to higher purchase likelihoods and average overall spending. Winning a discount affects perceptions of luck, which leads to positive store affective attitude, which in turn increases conversion rates and average overall spending. However, luck and positive store affective attitude also independently influence both metrics.

FIGURE 7

CONVERSION RATE (IN %) (STUDY 4B)



We also identify three theoretically driven moderators. We classify these moderators into two groups: one moderating the route via luck, and the other moderating the route via store affective attitude. We demonstrate that the effects operating via luck emerge only for those who believe in good luck (3A) and when winning occurs because of chance but not skill (3B). Likewise, we find that the effects driven by store affective attitude are more pronounced for more (vs. less) hedonic products (4B). We provide evidence in seven experiments, five of which were incentivized, with one involving real spending in a field experiment with a real company. Thus, our findings are robust and emerge in real-world settings.

Theoretical Implications

These findings allow us to make several theoretical and managerial contributions. Our main theoretical contribution is to the literature on pricing and promotions (Heilman et al. 2002; Inman et al. 1990, 1997; Mulhern and Leone 1990; Raju 1992). Unlike prior research, which, for example, suggests that discount depth can affect consumer behavior (Mulhern and Leone 1990; Raju 1992), we show that how this discount is received—via a game or straight—can also impact purchase behavior. Most importantly, our set of seven studies enables us to disentangle the complex underlying process of this phenomenon. Perceptions of luck and positive store affective attitude not only increase conversion rates and average overall spending jointly, but also influence both metrics independently. This is suggestive of at least three future research avenues. First, future research could identify other creative ways to offer promotions to increase sales. For example, in our contexts, the discount applied to all purchases made. What if the promotional game were offered as consumers walked

into the store, but provided a discount for only one product? This scenario should induce luck and positive store attitude, which could increase sales but would cost the firm a lot less. Perhaps highlighting the luck factor involved in other promotions, such as product/loyalty point giveaways, flash sales, or even limited-quantity offerings, could lead to similar effects and may be worthy of further scrutiny. Next, future research could also shed some light on alternative processes of this multiply determined phenomenon that we did not explicitly rule out in our studies. For instance, winning a discount may trigger social comparison (e.g., "I am better than others"), which might elicit more spending. Winning could also be perceived as a windfall gain, which could impact spending. We urge future researchers to shed some light on this and other alternative processes. Finally, future research could also explore the interesting findings in study 1B that the size of the winning discount does not matter and that winning even a small discount is sufficient. Why would that be the case?

Second, as also noted above, we contribute to the literature on the role of luck in consumer behavior (Darke and Freedman 1997a; Jiang et al. 2009; Kunda 1990). While previous research has established that priming people with luck-related concepts influences assessments of events with uncertain outcomes, the literature does not offer insights on consumer behavior in deterministic contexts. We provide a nuanced understanding of how luck operates in the context of promotional games. On the one hand, feelings of luck induce positive store affective attitude, which increases conversion rates and average overall spending. However, in addition to this indirect effect, feelings of luck also directly impact purchase behavior. It might be worthwhile to explore additional questions as well as downstream consequences. For example, how transient are these feelings of luck and affective attitude? Do these have implications only for immediate consumer behavior in the store? Or might they carry over to later interactions with the business? For example, might consumers be willing to help the store in other ways after winning (e.g., by providing customer feedback or by providing contact information)? Might this temporary state carry over to unrelated stores and/or risky decision making in other contexts (e.g., buying a lottery ticket at checkout)? Future research could also investigate whether such effects might emerge in other contexts—for example, when reserving a table for dinner, if the restaurant indicates that the customer was lucky to have reserved the best table or even the last table, would it lead to positive outcomes (e.g., greater spending)?

Third, at a broader level, our research provides some insights on how consumers make decisions post-winning. While our focus is on promotional games, these findings provide insights on how human beings behave after receiving sudden unexpected windfall gains. Our findings seem to suggest that such windfalls will lead to greater consumption. This is consistent with anecdotal stories we hear in the media about how lottery winners often, after a few years, file for bankruptcy (Edelman 2015). This raises a deeper question about unexpected "lucky" gains: why do humans treat such gains differently from other more expected, and perhaps, earned gains? It may also be important for future researchers to identify situations when luck leads to better decision making.

Managerial Implications

Our findings also have important managerial implications. First and foremost, we show that discounts obtained from promotional games generate higher conversion rates and sales, ranging from 42% to 213% across all our studies, even when offering lower discounts. Our findings from study 1B may be particularly relevant. As we show, even winning a lower discount (e.g., 10%) increases conversion rate and average overall spending relative to receiving a higher straight discount (e.g., 20%). Interestingly, conversion rate and average overall spending for those not winning anything also does not differ from the straight-discount and control conditions. While price promotions have been shown to increase sales (Bell et al. 1999; Bucklin et al. 1998; Chiang 1991; Gauri et al. 2017; Grewal et al. 1998; Gupta 1988; Heilman et al. 2002; van Heerde et al. 2004), they do impose costs on firms, which can render them unprofitable (Abraham and Lodish 1990; Kahn and McAlister 1997). Consequently, it is of paramount importance for marketing academics and practitioners alike to devise cost-effective promotions. Our findings suggest that using a game format can be a dominant and cost-efficient strategy for managers. They can use this knowledge to increase conversion rates and average overall spending while offering lower discounts.

Second, we find in studies 1A, 1B, and 2 that promotional games do not increase average basket value. Instead, promotional games increase average overall spending by means of higher conversion rates. In other words, the increase in sales is driven by more consumers buying rather than a smaller group of consumers buying more. While increasing basket value is beneficial for a firm's bottom line, increasing a firm's customer base is also important. In fact, having a larger customer base has a direct impact on firms' long-term profitability (Blattberg et al. 2001; Villanueva et al. 2008).

Third, building brand equity is difficult yet essential given the increased competition and higher costs in most markets today. We identify store loyalty, "a core dimension of brand equity" (Aaker 1996, 105), as an important potential downstream consequence of offering promotional games. While promotions have been used successfully in the past to increase sales, they have not been successful vehicles for building brand equity and some argue that they may even hurt brand equity in the long run (Chandon et al. 2000; Mela et al. 1997). In fact, brand equity is

"perhaps a firm's most valuable asset for improving marketing productivity," because it helps marketing managers to make "better strategic decisions about target market definition and product positioning, as well as better tactical decisions about specific marketing mix actions" (Keller 1993; 2). In addition, firms with higher brand equity are able to charge higher prices and tend to have a higher market share (Agarwal and Rao 1996; Chaudhuri and Holbrook 2001). We find that winning in a promotional game can help to build brand equity in the sense that it induces positive attitudes toward the seller. Thus, promotional games may be a small contributor in serving this very important goal. It is important to note, however, that we used a scenario-based approach in study 4A, which might raise some questions about the robustness of these effects. We urge future researchers to test the robustness and generalizability of these effects in more stringent studies. Indeed, managers are constantly trying to build and improve store loyalty (Ailawadi, Pauwels, and Steenkamp 2008; Corstjens and Lal 2000) and this could potentially be a cost-effective tool to enhance the customer-firm relationship (Palmatier et al. 2006).

Finally, although our effects emerge for all products, as we show in study 4B, the effects of promotional games on purchase behavior are more pronounced for more (vs. less) hedonic products. This suggests that it might be more beneficial to offer discounts via promotional games in stores and in product categories that are more hedonic.

Conclusion

Overall, we provide a robust set of demonstrations that winning a discount in a promotional game (vs. every consumer receiving the same discount) induces feelings of luck and store affective attitude, which increase conversion rates and average overall spending. We show that these effects also emerge via luck and positive affect alone. Future research could explore the limits of these effects, as well as identify additional conditions that foster or hamper them. We expect such work will prove fruitful, given that it has clear implications for consumers and practitioners alike.

DATA COLLECTION INFORMATION

The first author supervised the data collection for studies 1B–4B by research assistants at George Mason University in spring 2018 (studies 1B, 4B) and fall 2018 (studies 2, 3A, 3B, 4A). The third author supervised the data collection for the field study (study 1A) in fall 2017. The first author analyzed all data.

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