

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

Journal of Consumer Psychology xx, x (2016) xxx–xxx



## Research Article

## The effects of promotions on hedonic versus utilitarian purchases

Ran Kivetz<sup>a,1</sup>, Yuhuang Zheng<sup>b,\*,1</sup><sup>a</sup> Columbia University Business School, New York, NY 10027, USA<sup>b</sup> School of Economics and Management, Tsinghua University, Beijing 100084, China

Accepted by Cornelia Pechmann and Amna Kirmani, Editors

Received 13 January 2012; received in revised form 23 May 2016; accepted 25 May 2016

Available online xxx

## Abstract

Because it is harder to justify hedonic purchases than utilitarian purchases, it is proposed that promotions will have a stronger positive effect on the purchase likelihood of hedonic than utilitarian products. This and related propositions are tested in multiple studies using a variety of product categories and promotions. The results demonstrate that promotions are more effective in driving purchase decisions when: (a) the product is hedonic rather than utilitarian; (b) the product is framed as more hedonic; and (c) the consumer has a hedonic rather than utilitarian consumption goal. Consistent with our conceptualization, the enhanced impact of promotions on hedonic purchases is attenuated when: (a) the hedonic product is intended as a gift for others; (b) consumers can construct justifications for their purchase ahead of time; (c) consumers are *not* accountable for their decisions; and (d) the promotion is contingent on purchasing additional product units (i.e., a quantity discount like “Buy 10, get 50% off”). Importantly, the present research reconciles and explains the seemingly inconsistent prior findings regarding the effects of price versus quantity promotions.

© 2016 Society for Consumer Psychology. Published by Elsevier Inc. All rights reserved.

*Keywords:* Hedonic and utilitarian purchases; Hyperopia; Justification; Sales promotions; Self-control

## Introduction

Consumers often face a dilemma between hedonic consumption and more prudent utilitarian consumption. How consumers resolve this trade-off is a central question in research on self-control and also has important implications for consumer psychologists and marketers. However, there is very limited research on the impact of marketing mix variables on consumers' purchase decisions of hedonic and utilitarian products. Specifically, while companies often employ marketing promotions, it is unknown whether and why consumers respond differently to promotions for hedonic purchases versus utilitarian purchases.

We propose that various promotions, such as price discounts, rebates, coupons, and loyalty rewards, have a stronger positive effect on hedonic purchases than on utilitarian purchases. Our predictions are based on the concept of *hyperopia* (e.g. Haws & Poynor, 2008; Kivetz & Keinan, 2006; Kivetz & Simonson, 2002a) and on the notion that it is more difficult to justify hedonic consumption than utilitarian consumption (e.g. Dhar & Wertenbroch, 2012; Kivetz & Simonson, 2002b; Okada, 2005). We posit that the aforementioned promotions provide a guilt-reducing justification for the acquisition of hedonic items. Based on our conceptualization, we also hypothesize that *quantity*-based promotions, which require purchasing additional units (e.g., “Buy 10 units, get 50% off”), are *not* effective in justifying purchases of hedonic products.

The present research reconciles seemingly inconsistent findings from prior research. On the one hand, Khan and Dhar (2010) showed that consumers were more likely to purchase a bundle of hedonic and utilitarian items when a *price* discount

\* Corresponding author.

E-mail addresses: [rk566@columbia.edu](mailto:rk566@columbia.edu) (R. Kivetz), [zhengyh@sem.tsinghua.edu.cn](mailto:zhengyh@sem.tsinghua.edu.cn) (Y. Zheng).<sup>1</sup> The authors contributed equally to the research and are listed in alphabetical order.

was offered on the hedonic rather than utilitarian component. On the other hand, Wertenbroch (1998) found that consumers' demand for hedonic products (relative vices) increased less in response to *quantity* discounts than did consumers' demand for utilitarian products (relative virtues). Our conceptual framework and empirical studies account for both of the above cited results.

In our studies, we find that various (non-quantity) promotions have a stronger positive effect on the purchase likelihood of hedonic products compared to utilitarian products. To investigate the underlying psychological process, we explore multiple moderators and boundary conditions. Consistent with our conceptual framework, we demonstrate that the increased effectiveness of promotions for hedonic purchases is attenuated when: (a) the hedonic product is intended as a gift for others; (b) consumers can construct justifications for their purchases ahead of time; (c) consumers are *not* accountable for their decisions; and (d) the promotion involves a quantity-discount contingent on purchasing additional units (e.g., "Buy 10, get 50% off") as opposed to a price-discount.

The remainder of the article is organized as follows. We begin by reviewing relevant literature and developing our conceptual framework and initial hypotheses. The extant literature reveals seemingly contradictory results on the effects of promotions on hedonic versus utilitarian purchases; our conceptual framework unifies and reconciles these past findings. Next, we report a series of studies that test our conceptualization and predictions. Finally, we discuss the implications of the findings for consumer psychology and marketing.

## Literature review and hypothesis development

Hedonic purchases (e.g., of chocolates, movies, or vacations) are typically motivated by the desire for fun and sensual pleasure and often involve products that are frivolous or luxurious. In contrast, utilitarian purchases (e.g., of salads, office supplies, or medicine) are typically motivated by basic needs and often involve practical or necessary products (Hirschman & Holbrook, 1982; Khan, Dhar, & Wertenbroch, 2005; Kivetz & Simonson, 2002a, 2002b).

Although hedonic goods are more enticing and tempting than utilitarian goods, it is often harder to justify hedonic consumption (Dhar & Wertenbroch, 2012; Khan & Dhar, 2006; Kivetz & Simonson, 2002a; O'Curry & Strahilevitz, 2001; Okada, 2005; Sela, Berger, & Liu, 2009). The notion that it is harder to justify hedonic (compared to utilitarian) consumption is consistent with research in consumer psychology, economics, philosophy, political science, and sociology (e.g. Berry, 1994; Frankfurt, 1984; Maslow, 1970; Scitovsky, 1992). For example, research on hyperopia (excessive farsightedness) demonstrates that guilt and justification concerns often lead consumers to deprive themselves of indulgence and chronically delay hedonic experiences (Haws & Poynor, 2008; Keinan & Kivetz, 2008; Kivetz & Keinan, 2006; Kivetz & Simonson, 2002a; Shu & Gneezy, 2010). Spending money on hedonic products or services often creates intra-personal conflict between the desire for indulgence and the need for prudence (savings), because spending money on indulgences depletes

one's monetary resources that are essential for the basic needs of one's life. In contrast, spending money on utilitarian products or services has a natural justification: one simply cannot do without such items.

Prior research has discovered several mechanisms that consumers employ to justify hedonic consumption. For example, Dhar and Simonson (1999) find that making a virtuous choice causes consumers to be more likely to subsequently select a vice-ridden item (see also Mukhopadhyay & Johar, 2009). Kivetz and Simonson (2002b) show that consumers are more likely to select hedonic over utilitarian rewards when these rewards are contingent on greater effort, indicating that effort enables consumers to "earn the right to indulge." More generally, Kivetz and Zheng (2006) find that people who feel that they worked hard or excelled at a task are more likely to select indulgences as rewards. Relatedly, Khan and Dhar (2006) show that virtuous acts can provide a "license" to choose indulgences (see also Strahilevitz & Myers, 1998).

### *The effects of promotions on purchases of hedonic and utilitarian products*

The extant literature highlights consumers' greater need to justify hedonic rather than utilitarian purchases (e.g. Khan & Dhar, 2010; Kivetz & Simonson, 2002a; Okada, 2005; Sela et al., 2009). Prior research also demonstrates several mechanisms that allow consumers to justify hedonic consumption, including engaging in virtuous behaviors, exerting effort, and excelling in tasks (Dhar & Simonson, 1999; Khan & Dhar, 2006; Kivetz & Zheng, 2006; Kivetz & Simonson, 2002b; Mukhopadhyay & Johar, 2009; Strahilevitz & Myers, 1998). Such past choices and behaviors provide a cue to consumers that they have "earned the right (or license) to indulge."

Rather than exploring justification mechanisms associated with consumers' past behaviors and choices, the current research examines how *marketing promotions* help justify hedonic purchases. Prior research has shown that promotions provide transaction utility and can help motivate and justify purchases (e.g., Thaler, 1985). However, a critical question that has not been previously addressed is whether, and how, the impact of promotions depends on the product category. Building on research on the greater need to justify hedonic rather than utilitarian purchases, we hypothesize that price promotions will have a greater positive impact on the purchase likelihood of hedonic products than on the purchase likelihood of utilitarian products. Such price promotions, which consist of coupons, discounts, or rebates offered during the purchase decision process, can function as an effective (external) justification for purchasing hedonic products. Thus:

**H1.** Price promotions will have a stronger positive effect on the purchase likelihood of hedonic products than utilitarian products.

Although price promotions are probably the most common form of promotions, firms also use non-price promotions, such as reward programs. We posit that similar to the effect of price

promotions, non-price promotions can also give consumers a purchase justification. Further, consistent with our conceptualization and the greater need to justify hedonic purchases, such non-price (and non-quantity) promotions are expected to have a stronger positive effect on hedonic versus utilitarian purchases. Thus:

**H2.** Non-price (and non-quantity) promotions will have a stronger positive effect on the purchase likelihood of hedonic products than utilitarian products.

#### *The diametrically opposed effects of price and quantity promotions*

Despite the fact that promotions are one of the major marketing mix variables, there is scant empirical research on the impact of promotions on hedonic versus utilitarian purchases (cf. Chandon, Wansink, & Laurent, 2000). The sparse literature on this topic reports seemingly contradictory findings. On the one hand, Khan and Dhar (2010) find that purchases of bundles are more likely when a discount is offered on the hedonic component of the bundle (e.g., a \$10 discount on a sweater if purchased with a textbook) than on the utilitarian component (e.g., a \$10 discount on a textbook if purchased with a sweater). This finding suggests that promotions may be more effective in motivating purchases of hedonic rather than utilitarian items.

On the other hand, Wertenbroch (1998) demonstrates that consumers' demand of hedonic products (relative vices) increases less in response to quantity discounts than does consumers' demand of utilitarian products (relative virtues). For example, in one of Wertenbroch's studies, participants were asked to make a choice between a small purchase quantity of one 6-oz. bag of potato chips for \$1 and a large purchase quantity of three 6-oz. bags of potato chips for either \$2.80 or \$1.80 (i.e., the three potato chip bags were offered at either a shallow or a deep quantity discount, respectively). The results indicated that when the potato chips were framed as relative virtues (i.e., relatively more utilitarian), the probability of buying the larger quantity increased to 0.65 under the deep discount from 0.20 under the shallow discount (i.e., an increase of 225%). In contrast, when the potato chips were framed as relative vices (i.e., relatively more hedonic), the probability of buying the larger quantity increased to 0.53 under the deep discount from 0.41 under the shallow discount (i.e., an increase of only 29%). Thus, contrary to Khan and Dhar (2010); Wertenbroch (1998) finds that marketing promotions may have a stronger positive effect on purchases of utilitarian rather than hedonic goods. It is noteworthy that Wertenbroch's results are consistent with the notion that consumers ration (limit) the quantity of hedonic items purchased.

Critically, whereas Khan and Dhar (2010) studied *price* discounts for particular items within bundles, Wertenbroch (1998) investigated *quantity* discounts. Their seemingly contradictory findings suggest that consumers may respond differently to price versus quantity promotions. Further, these past results are readily reconciled in our conceptual framework.

Specifically, price promotions can offer a justification for purchasing hedonic items; the purchase of such items evokes guilt and requires justification, which the price promotion can

offer. In contrast, quantity promotions require that consumers buy multiple units of the same product in order to qualify for the promotional benefit (e.g., "Buy 10 and get 50% off"). Whereas buying on such a quantity promotion can provide benefits, it can also generate guilt and be difficult to justify when the promoted product is hedonic. That is, given the relative difficulty of justifying hedonic purchases, having to buy additional units of a hedonic product compared to what one originally considered purchasing may be especially difficult to justify. Thus, the benefit derived from quantity promotions is likely to be offset by the difficulty to justify, and the guilt associated with, buying multiple units of a hedonic product. Therefore, our conceptual framework leads to the following prediction:

**H3.** The enhanced effectiveness of promotions on hedonic versus utilitarian purchases will be attenuated or even reversed when such promotions are contingent on the quantity purchased; stated differently, for hedonic but *not* for utilitarian purchases, price promotions will have a stronger positive effect than will quantity promotions.

Next, to investigate the impact of different promotions on hedonic versus utilitarian purchases, we begin by testing the effect of price promotions (H1). Price promotions, which enable consumers to buy a product or service at a discounted price, are likely the most common type of promotions in the marketplace. Subsequently, we generalize our results to other, non-price (and non-quantity) promotions, including reward program points (H2). Then, we test our conceptual framework by directly contrasting the effects of quantity and price promotions on hedonic versus utilitarian purchases (H3). In the final part of our empirical section, we examine theoretically and managerially important boundary conditions. In particular, we examine the effects of buying for someone else, explaining (justifying) the purchase decision ahead of time, and not being held accountable for the purchase decision.

#### **Tests of the differential effects of price promotions on hedonic versus utilitarian purchases**

In this and the subsequent section, we report two studies that test H1 and H2. In the first study, we test our conceptualization and H1 by framing a single product as either more or less hedonic. Indeed, researchers have noted that the distinction between hedonic and utilitarian products is a continuum rather than a dichotomy and is subjective and therefore malleable (Okada, 2005; Voss, Spangenberg, & Grohmann, 2003). We conducted post-tests and manipulation checks to verify that in all of our studies, the products, product frames, and consumption goals were perceived by participants as hedonic or utilitarian as intended in the relevant manipulations. These post-tests and manipulation checks are detailed in the Methodological details Appendix.

##### *Study 1: Price promotions*

##### *Method*

Three hundred and forty-five (345) students at a large East Coast university participated in this study. Respondents were



asked to imagine that they were participating in an exchange study program in London for one semester and therefore were considering subscribing to a city guide magazine to help them get acquainted with London. The magazine was called *Time Out London* and was priced at £24.99 for 6 months (£0.98 per issue). Participants were randomly assigned to one of four conditions in a 2 (product framing: more vs. less hedonic)  $\times$  2 (price promotion availability: available vs. unavailable) between-subjects design. For participants in the more hedonic framing condition, the magazine was described using the following text: “London is limitless in its possibilities: there’s always something to do and see, taste, and buy every day of the week. It’s also the entertainment capital of the world. And if you’re not using Time Out, you’re losing out on London. It literally is your guide to London life!” Along with this description, participants also saw sample cover pictures of the magazine depicting entertainment and nightlife images. In contrast, for participants assigned to the less hedonic framing condition, the magazine was described using the following text: “*Time Out London* is published weekly and offers the best listings, reviews, and coverage of entertainment available anywhere in London. It literally is your guide to London life.” Along with this description, there was only a logo of the magazine. The second between-subjects factor, price promotion availability, was manipulated to be either available or unavailable, with the price promotion being “a special 50% off discount coupon.” After reviewing the product and price information, participants in all conditions were asked to decide whether or not they would subscribe to the magazine.

### Results

We entered product framing, price promotion, and their interaction term into a binary logistic regression to predict purchase intent of *Time Out London*. The results revealed a significant main effect of product framing ( $P_{\text{more hedonic}} = 46\%$  [81/176],  $P_{\text{less hedonic}} = 58\%$  [98/169],  $b = .485$ ,  $\chi^2(1) = 4.95$ ,  $p = .03$ ) and a marginally significant main effect of price promotion ( $P_{\text{promotion}} = 56.8\%$  [96/169],  $P_{\text{non-promotion}} = 47.2\%$  [83/176],  $b = -.392$ ,  $\chi^2(1) = 3.23$ ,  $p = .07$ ), qualified by a marginally significant interaction ( $b = -.793$ ,  $\chi^2(1) = 3.27$ ,  $p = .07$ ). Planned contrasts revealed a significant effect of price promotion when the magazine was framed as more hedonic ( $b = .780$ ,  $\chi^2(1) = 6.41$ ,  $p = .01$ ); that is, the purchase intent of the hedonic-framed *Time Out London* was higher when the price promotion was available (55.8% [48/86]) than when the price promotion was *not* available (36.7% [33/90]). Conversely, the price promotion had *no* effect when the magazine was framed as less hedonic ( $P_{\text{no promotion}} = 58.1\%$  [50/86] vs.  $P_{\text{promotion}} = 57.8\%$  [48/83];  $b = -.013$ ,  $\chi^2(1) = .002$ ,  $p = .968$ ). Thus, consistent with H1, the price promotion had a stronger positive effect on reported purchase likelihood when the offered product was framed as more rather than less hedonic.

### Discussion

Study 1 supports the prediction that price promotions are more effective in driving hedonic rather than utilitarian purchases (i.e., H1). The study used a subtle manipulation of

the hedonic versus utilitarian distinction by holding constant the product being considered for purchase and manipulating the product’s framing. Thus, the results rule out a rival explanation that the differential effectiveness of price promotions is due to variations in product characteristics that are unrelated to justification and the hedonic versus utilitarian distinction.

To further test H1, we conducted five additional studies. Due to space constraints, the results from only three of these five studies are reported in the Methodological details Appendix. To provide a robust and general test of our conceptualization, these five studies used various price promotions (coupons, discounts, and rebates), different product categories (consumer electronics, movie DVDs, ink cartridges, magazines), and different price points (varying between \$16.99 and \$599). These studies manipulated (between-subjects) the hedonic versus utilitarian factor by randomly assigning respondents to conditions that either featured different products or held constant the product but varied the consumption goal. Two of the five studies also generalized the findings from Study 1 by using a continuous measure of purchase intent rather than a binary measure of purchase decision as the dependent variable. The results from all five studies supported the prediction that price promotions have a stronger positive effect on the purchase likelihood of hedonic products than utilitarian products (H1).

It is noteworthy that in Study 1, as well as in the five other studies that tested and supported H1, the price promotions lowered the final price of the product being considered for purchase (compared to the non-promotion conditions). Thus, the micro-economics notion that the price elasticity of demand is greater for luxuries than necessities (Lipsey, 1989) provides an alternative explanation for the results. In the next study we rule out this alternative account by extending our investigation to non-price promotions.

## Generalizing the effects of price promotions to reward programs

### Study 2: Reward program promotion

#### Method

One hundred and fifteen (115) students at a large university in China participated in this study. Participants were asked to imagine that they were considering buying a pair of earphones. Respondents were randomly assigned to one of four conditions in a 2 (consumption goal: hedonic vs. utilitarian)  $\times$  2 (non-price promotion: reward program promotion vs. no promotion) between-subjects design. The first between-subjects factor, consumption goal, was manipulated to be either hedonic or utilitarian. Participants assigned to the hedonic consumption goal condition were asked to imagine that they were considering buying the earphones for music, movies and other entertainment programs. Conversely, participants assigned to the utilitarian consumption goal condition were told to imagine that they were considering buying the earphones to help them study English and improve their English comprehension. The second between-subjects factor, non-price promotion, was manipulated to be

either a reward program promotion or no promotion at all. The reward program promotion was described as: “You discover that your credit card company offers a special promotion with the online merchant selling the earphones. You will receive 10 times the amount of credit card reward points when you make a purchase with this online merchant.” Participants in the no-promotion condition did not receive any promotion information. After reviewing the product and price information, participants in all conditions were asked to indicate their intention to purchase the earphones using a seven-point scale ranging from “very unlikely to buy” (1) to “very likely to buy” (7).

### Results and discussion

As predicted in H2, the reward program promotion had a stronger positive effect on purchase intentions when the consumption goal was hedonic as opposed to utilitarian. A 2 (consumption goal: hedonic vs. utilitarian)  $\times$  2 (promotion type: reward program promotion vs. no promotion) ANOVA on purchase intent revealed a significant main effect of promotion ( $M_{\text{no promotion}} = 3.26$ ,  $SD = 1.73$ ;  $M_{\text{reward program promotion}} = 4.09$ ,  $SD = 1.95$ ,  $F(1,111) = 6.10$ ,  $p = .015$ ), qualified by the expected interaction between consumption goal and promotion ( $F(1,111) = 4.16$ ,  $p = .044$ ). Among the respondents who considered buying the earphones for entertainment (a hedonic consumption goal), the reward program promotion ( $M = 4.43$ ,  $SD = 1.85$ ) significantly increased the purchase intent relative to the no promotion condition ( $M = 2.89$ ,  $SD = 1.71$ ;  $F(1,111) = 9.91$ ,  $p = .002$ ). However, as expected, this effect was *not* observed among the respondents who considered purchasing the earphones for the utilitarian goal of English language study ( $M_{\text{no promotion}} = 3.62$ ,  $SD = 1.70$ ;  $M_{\text{reward program promotion}} = 3.77$ ,  $SD = 2.01$ ,  $F(1,111) = .094$ ,  $p = .759$ ). The results of Study 2 generalize the findings from price promotions to non-price promotions. Beyond its theoretical and managerial importance, such a generalization also rules out the price elasticity rival account (Lipsey, 1989).

### Tests of the diametrically opposed effects of quantity and price promotions

Consistent with H1 and H2, the studies thus far demonstrate that non-quantity promotions, such as discounts and reward points, are more effective in motivating purchases of hedonic than utilitarian products. These results were predicted based on the notion that purchasing hedonic items requires more justification than purchasing utilitarian items. H3 predicts a reversed pattern of results for quantity-based promotions. That is, the increased effectiveness of promotions for hedonic versus utilitarian purchases is expected to attenuate or even reverse when such promotions are contingent on purchasing more product units (e.g., “Buy 10 and get 50% off”). Phrased differently, for hedonic but *not* for utilitarian purchases, quantity promotions should have a weaker positive effect than price promotions. The diametrically opposed effects of quantity versus price promotions are predicted based on our conceptual framework: whereas price promotions make it easier to justify

purchasing a hedonic item, quantity promotions—which require buying additional units of a hedonic product—make it harder to justify the purchase.

### Study 3: Quantity versus price promotions

#### Method

Three hundred and nineteen (319) students at a large university in China participated in this study. Participants were asked to imagine that, while attending an overseas semester in the U.S., they were shopping in a supermarket on campus and were considering buying some Godiva chocolate. Participants were randomly assigned to one of six conditions in a 2 (consumption goal: hedonic vs. utilitarian)  $\times$  3 (promotion: price promotion vs. quantity promotion vs. no promotion) between-subjects design. The first between-subjects factor, consumption goal, was manipulated as either hedonic or utilitarian: participants in the hedonic consumption goal condition were asked to imagine that they were considering buying the chocolate as a snack item for their pleasure; conversely, participants in the utilitarian consumption goal condition were told to imagine that they were considering buying the chocolate as an energy source to be used during a hiking exercise. The second between-subjects factor, promotion, was manipulated to consist of a price promotion, a quantity promotion, or no promotion at all, with the total payment of \$5 held constant across the three conditions. More specifically, in the no promotion condition, participants were told that the price for the Godiva chocolate was \$5 per bar. In the price promotion condition, participants were told that the original price for the Godiva chocolate was \$10 per bar and that “with a special 50% OFF promotion today, your final price is \$5 per bar after the promotion.” In the quantity promotion condition, participants were told that original price for the Godiva chocolate was \$2 per bar and that “with a special buy 5 get 50% off promotion today, your final price is \$5 for five chocolate bars after the promotion.” After reviewing the product and price information, participants in all conditions were asked to decide whether or not they would purchase the Godiva chocolate.

#### Results

We tested the effects of quantity promotion versus price promotion under hedonic and utilitarian consumption goals of the chocolate. The data was analyzed using a binary logistic regression model with purchase decision as the dependent variable and with consumption goal (hedonic vs. utilitarian), promotion type (quantity vs. price promotion), and their interaction term as independent variables. The results indicated a significant interaction effect ( $b = 2.31$ ,  $\chi^2(1) = 11.89$ ,  $p = .001$ ) and no significant main effects (both  $p$ 's  $> .1$ ). Planned contrasts revealed a significant effect of price promotion versus quantity promotion when the Godiva chocolate was to be purchased for a hedonic purpose ( $b = -.825$ ,  $\chi^2(1) = 3.84$ ,  $p = .05$ ). That is, participants assigned to the “50% OFF” price promotion condition were significantly more likely to report that they would purchase the Godiva chocolate than

were participants assigned to the “BUY 5 GET 50% OFF” quantity promotion ( $P_{\text{price promotion}} = 75.5\%$  [40/53] vs.  $P_{\text{quantity promotion}} = 57.4\%$  [31/54]). In contrast, when the chocolate was to be purchased for a utilitarian purpose, a diametrically opposed pattern emerged. Specifically, participants assigned to the “50% OFF” price promotion condition were significantly less likely to indicate that they would purchase the Godiva chocolate than were participants assigned to the “BUY 5 GET 50% OFF” quantity promotion condition ( $P_{\text{price promotion}} = 63.5\%$  [33/52] vs.  $P_{\text{quantity promotion}} = 88.5\%$  [46/52];  $b = 1.49$ ,  $\chi^2(1) = 8.13$ ,  $p = .004$ ).

Study 3's results also replicated the findings reported earlier regarding the stronger positive effect of price promotions on hedonic compared to utilitarian purchases. The binary logistic regression model, with purchase decision as the dependent variable and consumption goal (hedonic vs. utilitarian), price promotion availability (no promotion vs. price promotion available), and their interaction term as independent variables, revealed a significant main effect of price promotion ( $P_{50\% \text{ OFF price promotion}} = 69.5\%$  [73/105] vs.  $P_{\text{no promotion}} = 46.3\%$  [50/108],  $b = .984$ ,  $\chi^2(1) = 11.65$ ,  $p = .001$ ), qualified by a significant interaction effect ( $b = -1.80$ ,  $\chi^2(1) = 9.31$ ,  $p = .002$ ). Planned contrasts indicated a significant effect of the “50% OFF” price promotion when the chocolate was to be purchased toward a hedonic goal ( $P_{50\% \text{ OFF price promotion}} = 75.5\%$  [40/53] vs.  $P_{\text{no promotion}} = 31.5\%$  [17/54];  $b = -1.9$ ,  $\chi^2(1) = 19.26$ ,  $p < .001$ ). Conversely, when the chocolate was to be purchased toward a utilitarian goal, this effect was not observed ( $P_{\text{no promotion}} = 61.1\%$  [33/54] vs.  $P_{50\% \text{ OFF price promotion}} = 63.5\%$  [33/52];  $b = -.10$ ,  $\chi^2(1) = .062$ ,  $p = .803$ ).

### Discussion

As predicted by H3, the results demonstrate that quantity promotions, which require purchasing an increased amount of a specific product, are less effective than price promotions in motivating hedonic purchases. In quantity promotions, the guilt associated with, and the difficulty of justifying, buying additional units of a hedonic product offset the benefit provided by the promotion. In contrast, price promotions, which do not require purchasing additional product units, are particularly effective in justifying hedonic purchases. The observed results, which are consistent with our conceptualization, unify and reconcile the seemingly inconsistent findings from past research (cf. Khan & Dhar, 2010; Wertenbroch, 1998).

It is noteworthy that because the total payment was held constant across all conditions in Study 3, the quantity promotion offered a strictly dominant deal from an economic (or rational) perspective. That is, whereas participants assigned to either the no promotion condition or the price promotion condition could purchase just one chocolate bar for \$5, participants assigned to the quantity promotion condition could purchase five bars for the same price of \$5. Indeed, participants assigned to the utilitarian consumption goal condition were significantly more likely to indicate that they would purchase the chocolate when they were offered the (economically dominating) quantity promotion than when they were offered

the price promotion or no promotion at all. However, consistent with our conceptualization and with H3, participants assigned to the hedonic consumption goal condition were significantly less likely to report that they would purchase the chocolate when they were offered the economically dominating, yet difficult to justify, quantity promotion than when they were offered the guilt-reducing price promotion. Further support for H3 was found in another study, in which the “per unit” price (but not the total required payment) was held constant between the price promotion and quantity promotion conditions. This study is reported in the Methodological details Appendix.

Next, we report a series of studies that examine the underlying psychological mechanisms and boundary conditions. These studies test the effects of: (i) buying for the self versus for others (Study 4); (ii) providing reasons before purchase (Study 5); and (iii) experiencing different accountability levels (Study 6).

### Tests of boundary conditions for the effect of promotions on hedonic purchases

It is often difficult to justify buying a hedonic product for oneself. However, buying a hedonic product as a gift for another person is perceived as normative (Kivetz & Simonson, 2002a; Thaler, 1985), and therefore, does not require any special justification. Indeed, recent research demonstrates that purchasing a gift for others evokes a different mindset and highlights different product attributes (Baskin, Wakslak, Trope, & Novemsky, 2014; Steffel & Le Boeuf, 2014). In fact, when consumers purchase a hedonic or luxury item as a gift for another person, a price promotion could even backfire and detract from the perceived value of giving the gift. That is, when the objective is to pamper or bond with a friend, a discount could have a reversed effect. Consequently, we predict that the increased effectiveness of promotions in inducing purchases of hedonic products will be attenuated when the product is intended as a gift. The discussion leads to the following hypothesis:

**H4.** Price promotions will be effective in motivating purchases when consumers consider buying a hedonic product for themselves but not as a gift for others.

Next, we report Study 4, which tests H4.

#### Study 4: Buying for the self versus buying for others as gifts

##### Method

One hundred and fifty-three (153) students at a large East Coast university participated in this study. Respondents were randomly assigned to one of four conditions in a 2 (price promotion: available vs. unavailable)  $\times$  2 (recipient: self vs. others) between-subjects design. The product being considered for purchase was a box of Godiva chocolates priced at \$13. The price promotion consisted of “a special 50% off discount” and was manipulated to be either available or unavailable (between-subjects). Participants were asked to imagine that



they were considering buying the product either for themselves or as a gift for a good friend's birthday (manipulated between-subjects). After carefully reviewing all the information, participants in all conditions were asked to indicate whether they would purchase the product being considered.

### Results and discussion

We entered recipient (self vs. others), price promotion (available vs. unavailable), and their interaction term into a binary logistic regression to predict the intention to purchase the chocolate. Results revealed a significant main effect of recipient ( $P_{\text{self}} = 37.3\%$  [28/75],  $P_{\text{others}} = 57.7\%$  [45/78],  $b = .827$ ,  $\chi^2(1) = 6.20$ ,  $p = .013$ ), qualified by a significant interaction effect ( $b = -1.84$ ,  $\chi^2(1) = 7.23$ ,  $p = .007$ ). Planned contrasts indicated a significant effect of the price promotion when the Godiva chocolate was intended for the self ( $b = 1.32$ ,  $\chi^2(1) = 6.76$ ,  $p = .009$ ). That is, the intention to purchase the chocolate for oneself was higher when the price promotion was available ( $P_{\text{price promotion}} = 52.8\%$  [19/36]) than when no promotion was presented ( $P_{\text{no promotion}} = 23.1\%$  [9/39]). However, as expected, this effect was *not* observed among the respondents who considered purchasing the chocolate as a gift for a good friend's birthday ( $P_{\text{no promotion}} = 64.1\%$  [25/39] vs.  $P_{\text{price promotion}} = 51.3\%$  [20/39];  $b = -.529$ ,  $\chi^2(1) = 1.31$ ,  $p = .253$ ).

The results support our conceptual framework and H4. The decision to buy a hedonic product for oneself often requires justification, and is therefore more likely to depend on external "excuses," such as discounts and other promotions. Conversely, when consumers consider buying a product as a gift for someone else (e.g., for a friend's birthday), they have a ready purchase justification. Consequently, when buying a hedonic product for someone else, price promotions are ineffective in motivating purchases.

### Study 5: The moderating role of providing reasons

The findings so far support the proposition that various promotions, except those based on the quantity purchased, are more effective in motivating purchases of hedonic than utilitarian products. These results were predicted based on the notion that consumers have a strong need to justify hedonic, but not utilitarian, purchases. Next, we directly test this explanation and the underlying psychological process by examining the moderating role of providing reasons for the purchase (e.g., Simonson & Nowlis, 2000). Allowing consumers to explain (justify) their impending decision to purchase a hedonic product is predicted to replace the need for employing a marketing promotion as a justification. Thus:

**H5.** The positive effect of promotions on inducing purchases of hedonic products will be attenuated when consumers explain their impending purchase decision.

Next, we report a test of H5. This study employs a subtle manipulation of the price promotion, one in which the final price of the promoted product is equal to the price of that

product in the no-promotion condition. Although such a price promotion does *not* lower the final price of the promoted item (relative to the no-promotion condition), it can still provide consumers with a justification for purchase.

### Method

One hundred and twenty-four (124) students at a large East Coast university participated in this study. Participants were randomly assigned to one of four conditions in a 2 (pre-decisional justification: available vs. unavailable)  $\times$  2 (promotion: available vs. unavailable) between-subjects design. The product used in this study was a hedonic movie DVD ("King Kong"), which we confirmed was perceived by respondents as hedonic in a post-test (described in Methodological details Appendix). Participants in the pre-decisional justification condition were asked to carefully write their reasons for and against buying the DVD movie prior to making their decision. By contrast, participants who were not asked to provide reasons for and against the purchase were simply asked to indicate whether they would purchase the product under consideration. With regard to the price promotion manipulation, participants who were offered a promotion were told that the regular price of the movie DVD was \$21.99, but that a "\$5 off a purchase of \$15 or more" coupon was being offered to them. Participants who were not offered any promotion were simply told that the price of the movie DVD was \$16.99. Thus, final price of the movie DVD was identical (\$16.99) for participants in all conditions. After reviewing all of the product and price information, participants were asked to indicate whether they would purchase the movie.

### Results and discussion

The purchase intent data was analyzed using a binary logistic regression model with purchase intent as the dependent variable and with pre-decisional justification (available vs. unavailable), price promotion (available vs. unavailable), and their interaction term as independent variables. The results indicated a significant main effect of promotion ( $P_{\text{promotion}} = 65.6\%$  [42/64],  $P_{\text{no promotion}} = 38.3\%$  [23/60],  $b = -1.12$ ,  $\chi^2(1) = 8.98$ ,  $p = .003$ ), qualified by significant interaction effect ( $b = 1.79$ ,  $\chi^2(1) = 5.39$ ,  $p = .02$ ). Planned contrasts revealed a significant effect of price promotion when participants were *not* asked to provide reasons before making their purchase decision ( $b = 2.04$ ,  $\chi^2(1) = 12.92$ ,  $p < .001$ ). That is, the intention to purchase the DVD was higher when the price promotion was available than when no promotion was presented ( $P_{\text{promotion}} = 75\%$  [24/32] vs.  $P_{\text{no promotion}} = 28.1\%$  [9/32]). Conversely, the price promotion had *no* effect when the purchase decision was made after providing reasons ( $P_{\text{promotion}} = 56.3\%$  [18/32] vs.  $P_{\text{no promotion}} = 50\%$  [14/28];  $b = .251$ ,  $\chi^2(1) = .234$ ,  $p = .629$ ).

The results of Study 5 support H5. When consumers are allowed to explain their impending decision about whether to purchase a hedonic product, they do *not* need to employ price promotions as a purchase justification. In contrast, when consumers do not a priori explain their purchase decision, even a price promotion that does *not* affect the final purchase price increases the likelihood of purchasing a hedonic item. In

addition to supporting the proposed justification process, this finding also rules out the price elasticity rival account (Lipsey, 1989).

#### *Study 6: The moderating role of accountability*

Next, we further investigate the psychological mechanism underlying the greater impact of promotions on hedonic versus utilitarian purchases. To do so, we examine the moderating effect of accountability. Accountability refers to people's need to justify their views and preferences to others; accountability also refers to people's concerns about the evaluation of their views and preferences by others (Carnevale, 1985; Simonson & Nye, 1992; Tetlock, 1983). We have argued that promotions are particularly effective in motivating purchases of hedonic products because such purchases need to be justified. However, when consumers are less concerned about justifying their decisions, such as under low accountability situations, they should be less susceptible to the influence of promotions. Thus:

**H6.** Low accountability situations will attenuate the positive effect of promotions on the purchase likelihood of hedonic products.

Next, we report Study 6, which tests H6. Participants were randomly assigned to a low accountability condition, a high accountability condition, or a control condition in which accountability was not manipulated. The extant literature indicates that consumers typically feel accountable for, and a need to justify, their decisions (see, e.g., Shafir, Simonson, & Tversky, 1993; Simonson & Nowlis, 2000). Thus, we predicted that participants' decisions in the high accountability condition will mirror participants' decisions in the control condition. Consistent with H6, we expected participants' decisions in the low accountability condition to be less sensitive (compared to decisions in the other two conditions) to a promotional offer.

Study 6 was also designed to generalize the conceptual framework by examining consumer choice, or joint evaluations of hedonic and utilitarian options, rather than purchase decisions, or separate evaluations (see, e.g., Nowlis & Simonson, 1997). More specifically, in the studies reported so far, participants made purchase decisions regarding a *single* product or service. However, in many real-world situations, consumers need to choose between two options, one hedonic and the other utilitarian. How consumers resolve such trade-offs is a central topic in self-control research. Therefore, it is important to test the impact of marketing promotions on choices between hedonic and utilitarian products.

#### *Method*

One hundred and fifty-four (154) students at a large East Coast university participated in this study for extra course credit. Participants were randomly assigned to one of six conditions in a 3 (perceived accountability: high vs. low vs. control)  $\times$  2 (price promotion: available vs. unavailable) between-subjects design. Participants were asked to choose between buying a "rich, delicious chocolate cake" or a "low-

calorie, healthy seasonal fruit salad." Participants were given colored pictures of both items and were told that the regular price of either item was \$4 at a gourmet store near campus. Perceived accountability was varied (between-subjects) using a manipulation adopted from Simonson and Nye (1992). In particular, participants in the "high accountability" condition were told that "to better understand your decisions, you may be invited to meet with the researchers conducting the study to explain and justify your choices. Your decisions may also be included in a booklet as a basis for class discussion. Please print your name in the box on the first page of the questionnaire." Participants in the "low accountability" condition were told that "your responses will remain completely anonymous and confidential. Please do not put your name on the questionnaire." Participants in the control condition were not provided with any instructions or information regarding the public versus private nature of their responses. Participants in the promotion available condition were told that "as a special offer to students only, there is a 50% off discount (student ID required) offered by the gourmet store. Your final price after the 50% off special discount is \$2 for either the fruit salad or the chocolate cake (the discount can be applied only toward one item)." In contrast, participants in the promotion unavailable condition were not provided with any promotional offer. After carefully reviewing the product and price information, participants in all conditions were asked to choose between buying the fruit salad and buying the chocolate cake.

#### *Results*

The food choice data were analyzed using a logistic regression model with food choice as the dependent variable and perceived accountability (high vs. low vs. control), price promotion (available vs. unavailable), and their interaction term as independent variables. The results indicated a significant main effect of promotion on the choice share of the hedonic cake ( $C_{\text{promotion}} = 65.8\%$  [52/79] vs.  $C_{\text{no promotion}} = 46.7\%$  [35/75], where  $C$  equals the percentage of participants who chose the hedonic item over the utilitarian item in a given condition;  $b = .782$ ,  $\chi^2(1) = 5.54$ ,  $p = .019$ ). The interaction effect was not statistically significant ( $\chi^2(2) = 3.41$ ,  $p = .181$ ). Because participants' choices in the control condition were predictably similar to participants' choices in the high accountability condition, we combined the data from these two groups in order to further test the interaction between promotion availability and perceived accountability. A binary logistic regression revealed that this interaction effect was marginally significant and in the predicted direction ( $b = -1.32$ ,  $\chi^2(1) = 3.5$ ,  $p = .06$ ). Separate interaction effects between the low accountability condition and the control condition, as well as between the low accountability condition and the high accountability condition, were in the predicted direction and marginally significant (both  $ps < .1$ ).

More specifically, consistent with H6, the results demonstrated that the price promotion had a significant positive effect on the choice share of the hedonic product in either the high accountability condition or in the control condition, but *not* in the low accountability condition. Planned contrasts revealed a



significant effect of the price promotion among the participants assigned to the high accountability condition ( $b = -1.17$ ,  $\chi^2(1) = 4.18$ ,  $p = .041$ ); that is, the percent of respondents who chose the hedonic cake over the fruit salad was higher when the price promotion was available than when no promotion was offered ( $C_{\text{promotion}} = 73.3\%$  [22/30] vs.  $C_{\text{no promotion}} = 46.2\%$  [12/26]). Similarly, among the participants assigned to the control condition, the price promotion significantly increased choices of the cake over the fruit salad ( $C_{\text{promotion}} = 66.7\%$  [16/24] vs.  $C_{\text{no promotion}} = 36\%$  [9/25];  $b = -1.27$ ,  $\chi^2(1) = 4.46$ ,  $p = .035$ ). As predicted, however, among participants assigned to the low perceived accountability condition, the price promotion did *not* impact choices between the hedonic cake and the utilitarian fruit salad ( $C_{\text{promotion}} = 56\%$  [14/25] vs.  $C_{\text{no promotion}} = 58.3\%$  [14/24];  $b = -.095$ ,  $\chi^2(1) = .027$ ,  $p = .869$ ).

### Discussion

The results support and generalize the proposed conceptualization and shed light on the underlying psychological mechanism. The finding that the promotion had a similar positive effect on hedonic choices in the high accountability condition and in the control condition demonstrates that consumers naturally make decisions as if they are accountable for, and need to justify, their decisions (see also Shafir et al., 1993; Simonson & Nowlis, 2000). Further, the attenuating effect of low accountability supports the notion that a need to justify indulgence underlies the differential impact of promotions on hedonic versus utilitarian purchases. Finally, Study 6 generalizes the findings from Studies 1 through 5, which investigated purchase decisions (regarding a separate hedonic or utilitarian item), to choices between hedonic and utilitarian items (i.e., joint evaluations).

### General discussion

In their everyday lives, consumers often face a self-control dilemma between hedonic and utilitarian consumption. While self-control has been studied by scholars from many disciplines, very limited research has been conducted to examine the role of marketing mix variables in consumers' self-control decisions (for an exception, see Wertenbroch, 1998). In the present research, we examined the effects of marketing promotions on consumers' purchases of hedonic versus utilitarian products. We proposed that, because it is more difficult to justify hedonic consumption than utilitarian consumption, (non-quantity) promotions will have a stronger positive effect on the purchase likelihood of hedonic rather than utilitarian products. This and other related hypotheses were tested in a series of studies using a variety of products and promotions. Next, we briefly review the main findings and their theoretical and practical implications.

### Key findings and implications

We found that (non-quantity) promotions have a stronger positive effect on hedonic purchases than utilitarian purchases.

This effect was observed when we tested: (i) hedonic versus utilitarian products; (ii) the same product with a more versus less hedonic framing; and (iii) the same product with a hedonic versus utilitarian consumption goal. The results were generalized to both price promotions (e.g., coupons, price discounts, rebates) and non-price promotions (reward program points). Consistent with the role of justification in the observed effects, the positive effect of such promotions on hedonic purchases was attenuated when: (i) the promotion was contingent on purchasing additional product units (i.e., a quantity discount like "buy 10, get 50% off"); (ii) the hedonic product was intended as a gift for others; (iii) consumers explained their impending decisions; and (iv) consumers were *not* accountable for their decisions.

The present findings reconcile seemingly contradictory findings from prior research. On the one hand, Khan and Dhar (2010) found that in the context of cross-category bundles that contain both hedonic and utilitarian items, bundle purchase was more likely when a price discount was offered on the hedonic component rather than on the utilitarian component. On the other hand, Wertenbroch (1998) demonstrated that due to purchase quantity rationing, consumers' demand of hedonic products (relative vices) increased less in response to quantity discounts than consumers' demand of utilitarian products (relative virtues). Our conceptualization and results synthesize these past findings by demonstrating that quantity promotions, which require purchase quantity acceleration, are less effective than price promotions in motivating hedonic purchases. In such quantity promotions, the guilt associated with, and the difficulty of justifying, buying additional units of a hedonic product offsets the transaction utility provided by the promotion. In contrast, price promotions, which do not require purchasing additional product in return for a discount, are particularly effective in justifying and inducing hedonic purchases.

The present research may explain findings from previous research on asymmetric promotional effects at the brand level in the sales promotion literature. Blattberg, Briesch, and Fox (1995) conclude that promoting higher tier brands generates more switching than does promoting lower tier brands. Our conceptualization might explain these results: because it is harder for consumers to justify buying higher tier (premium) brands (which are likely to be perceived as relative luxuries) than lower tier brands (which are likely to be perceived as more utilitarian), promoting higher tier brands provides a greater-needed justification for switching than does promoting lower tier brands. This hypothesis merits further research, which could test whether premium brands are perceived as relatively more luxurious (or hedonic), and whether switching to higher tier brands indeed calls for greater justification.

Although the present research showed that promotions are particularly effective in facilitating purchases of hedonic items and luxuries, future research should examine the conditions under which promotions may hinder the sales and perceived value of luxury products. Specifically, purchasing luxuries and hedonic products is often associated with exclusivity, elegance, and prestige, and can make consumers feel accomplished (Mandel, Petrova, & Cialdini, 2006), socially superior (e.g., Mazzocco, Rucker, Galinsky, & Anderson, 2012), and proud (Bellezza &

Keinan, 2014). Thus, under certain circumstances, discounting luxuries and hedonic products may backfire. For example, the results of Study 4 suggest that hedonic gifts should not be promoted using price discounts because such discounts may decrease consumers' likelihood of purchasing luxurious gifts. Additionally, promotions may have a detrimental effect on brand choice if such promotions are offered *after* (as opposed to *before*) the consumer has already decided to make a purchase in the luxury category. Once consumers decide to purchase a luxury (or hedonic) product, they do not need a purchase justification, and a price promotion may simply weaken the product's perceived luxuriousness and status signal. Conversely, in the case of utilitarian or necessity products, the effect of promotions is not expected to differ based on whether the consumer has already decided to make a purchase in the category. Future research can examine these and other related propositions to further understand the impact of marketing promotions on consumer psychology and on hedonic versus utilitarian purchases.

### Acknowledgments

The authors gratefully acknowledge National Natural Science Foundation of China (71272027, 71472107) for financial support.

### Appendix A–L. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.jcps.2016.05.005>.

### References

- Baskin, E., Wakslak, C. J., Trope, Y., & Novemsky, N. (2014). Why feasibility matters more to gift receivers than to givers: A construal-level approach to gift giving. *Journal of Consumer Research*, *41*(1), 169–182.
- Bellezza, S., & Keinan, A. (2014). Brand tourists: How non-core users enhance the brand image by eliciting pride. *Journal of Consumer Research*, *41*(2), 397–417.
- Berry, C. J. (1994). *The idea of luxury: A conceptual and historical investigation*. New York: Cambridge University Press.
- Blattberg, R. C., Briesch, R., & Fox, E. J. (1995). How promotions work. *Marketing Science*, *14*(3), G122–G132.
- Carnevale, P. J. (1985). Accountability of group representatives and intergroup relations. In E. J. Lawler (Ed.), *Advances in group processes: Theory and research, Vol. 2*. (pp. 227–246). Greenwich, CT: JAI Press.
- Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of Marketing*, *64*(4), 65–81.
- Dhar, R., & Simonson, I. (1999). Making complementary choices in consumption episodes: Highlighting versus balancing. *Journal of Marketing Research*, *36*(1), 29–44.
- Dhar, R., & Wertenbroch, K. (2012). Self-signaling and the costs and benefits of temptation in consumer choice. *Journal of Marketing Research*, *49*(1), 15–25.
- Frankfurt, H. G. (1984). Necessity and desire. *Philosophy and Phenomenological Research*, *45*(1), 1–13.
- Haws, K. L., & Poynor, C. (2008). Seize the day! Encouraging indulgence for the hyperopic consumer. *Journal of Consumer Research*, *35*(4), 680–691.
- Hirschman, E., & Holbrook, M. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *Journal of Marketing*, *46*(3), 92–101.
- Keinan, A., & Kivetz, R. (2008). Remediating hyperopia: The effect of self-control regret on consumer behavior. *Journal of Marketing Research*, *45*(6), 676–689.
- Khan, U., & Dhar, R. (2006). Licensing effect in consumer choice. *Journal of Marketing Research*, *43*(2), 259–266.
- Khan, U., & Dhar, R. (2010). Price framing effects on purchase of hedonic and utilitarian bundles. *Journal of Marketing Research*, *47*(6), 1090–1099.
- Khan, U., Dhar, R., & Wertenbroch, K. (2005). A behavioral decision theory perspective on hedonic and utilitarian choice. In S. Ratneshwar, & D. G. Mick (Eds.), *Inside consumption: Consumer motives, goals, and desires* (pp. 144–165). New York, NY: Routledge.
- Kivetz, R., & Keinan, A. (2006). Repenting hyperopia: An analysis of self-control regrets. *Journal of Consumer Research*, *33*(2), 273–282.
- Kivetz, R., & Simonson, I. (2002a). Self-control for the righteous: Towards a theory of pre-commitment to indulgence. *Journal of Consumer Research*, *29*(2), 199–217.
- Kivetz, R., & Simonson, I. (2002b). Earning the right to indulge: Effort as a determinant of customer preferences towards frequency program rewards. *Journal of Marketing Research*, *39*(2), 155–170.
- Kivetz, R., & Zheng, Y. (2006). Determinants of justification and self-control. *Journal of Experimental Psychology: General*, *135*(4), 572–587.
- Lipsey, R. G. (1989). *An introduction to positive economics* (7th ed.). London, England: Weidenfeld and Nicolson.
- Mandel, N., Petrova, P. K., & Cialdini, R. B. (2006). Images of success and the preference for luxury brands. *Journal of Consumer Psychology*, *16*(1), 57–69.
- Maslow, A. H. (1970). *Motivation and personality* (2nd ed.). New York, NY: Harper and Row.
- Mazzocco, P. J., Rucker, D. D., Galinsky, A. D., & Anderson, E. T. (2012). Direct and vicarious conspicuous consumption: Identification with low-status groups increases the desire for high-status goods. *Journal of Consumer Psychology*, *22*(4), 520–528.
- Mukhopadhyay, A., & Johar, G. V. (2009). Indulgence as self-reward for prior shopping restraint: A justification-based mechanism. *Journal of Consumer Psychology*, *19*(3), 334–345.
- Nowlis, S. M., & Simonson, I. (1997). Attribute–task compatibility as a determinant of consumer preference reversals. *Journal of Marketing Research*, *34*(2), 205–218.
- O'Curry, S., & Strahilevitz, M. (2001). Probability and mode of acquisition effects on choices between hedonic and utilitarian options. *Marketing Letters*, *12*(1), 37–49.
- Okada, E. M. (2005). Justification effects on consumer choice of hedonic and utilitarian goods. *Journal of Marketing Research*, *42*(1), 43–53.
- Scitovsky, T. (1992). *The joyless economy* (revised ed.). New York: Oxford.
- Sela, A., Berger, J., & Liu, W. (2009). Variety, vice, and virtue: How assortment size influences option choice. *Journal of Consumer Research*, *35*(6), 941–951.
- Shafir, E., Simonson, I., & Tversky, A. (1993). Reason-based choice. *Cognition*, *49*(2), 11–36.
- Shu, S. B., & Gneezy, A. (2010). Procrastination of enjoyable experiences. *Journal of Marketing Research*, *47*(5), 933–944.
- Simonson, I., & Nowlis, S. (2000). The role of explanations and need for uniqueness in consumer decision making: Unconventional choices based on reasons. *Journal of Consumer Research*, *27*(1), 49–68.
- Simonson, I., & Nye, P. (1992). The effect of accountability on susceptibility to decision errors. *Organizational Behavior and Human Decision Processes*, *51*(3), 416–446.
- Steffel, M., & Le Boeuf, R. A. (2014). Overindividuation in gift giving: Shopping for multiple recipients leads givers to choose unique but less preferred gifts. *Journal of Consumer Research*, *40*(6), 1167–1180.
- Strahilevitz, M., & Myers, J. G. (1998). Donations to charity as purchase incentives: How well they work may depend on what you are trying to sell. *Journal of Consumer Research*, *24*(4), 434–446.
- Tetlock, P. E. (1983). Accountability and complexity of thought. *Journal of Personality and Social Psychology*, *45*(1), 74–83.
- Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science*, *4*(3), 199–214.
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of Marketing Research*, *40*(3), 310–320.
- Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, *17*(4), 317–333.