

Deliberative versus Implemental Mindsets in Consumer Decision Making

By

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ABSTRACT

Mindsets play an important role in shaping consumers' behavior and, in particular, their purchase decisions. A significant body of prior research has investigated different types of mindsets, such as power (Galinsky et al. 2015), regulatory focus (Hamilton et al. 2011; Higgins 1998), and construal level (Trope and Liberman 2010). Among these mindsets, there has been a growing interest in understanding how deliberative versus implemental mindsets (i.e., to what extent consumers are momentarily predisposed to think versus act) might impact consumer decisions (Lee and Ariely 2006; Xu and Wyer 2007; Zhao, Lee, and Soman 2012). Prior work has shown that deliberative and implemental mindsets are associated with different stages of goal pursuit (Armor and Taylor 2003; Dhar, Huber, and Khan 2007; Tu and Soman 2014). However, more research is needed to identify what other factors might activate such mindsets and how they, in turn, govern consumers' decision-making processes. The purpose of this dissertation is two-fold. First, it examines how contextual cues that consumers regularly encounter while shopping can activate deliberative versus implemental mindsets. While prior work in this domain has focused on how goal-relevant aspects of a situation or environment promote deliberative or implemental mindsets (Taylor and Gollwitzer 1995; Brandstätter and Frank 2002; Keller and Gollwitzer 2017), the current research sheds light on how these mindsets can be activated by seemingly goal-irrelevant situational cues in shopping environments. Second, this dissertation advances our understanding of the behavioral consequences of deliberative versus implemental mindsets. In particular, it examines how these mindsets promote consumers' action readiness, which, in turn, interacts with the shopping context to drive purchase decisions.

This dissertation consists of two essays that provide insight into the role of deliberative versus implemental mindsets in different marketing contexts. The first essay examines how consumers' purchase behavior is affected by the timing of a store's request that shoppers reveal their identity. Since the completion of purchases, particularly in non-physical (e.g., web-based) shopping environments, typically requires consumers to reveal their identity to the vendor at some point, it is important to understand how doing so earlier versus later in the shopping process affects consumers' behavior in the store—such as whether they ultimately complete a purchase. The key finding is that requiring at-the-door identification deters store entry, but it also activates an implemental mindset in those consumers who choose to enter, rendering them more likely to make a purchase than if they are required to identify at-checkout. This purchase-promoting effect of at-the-door identification requests tends to outweigh its detrimental impact on store entry. In addition to advancing our conceptual understanding of the psychological dynamics of the shopping process, this research provides insights that have important practical implications for the design of shopping environments (e.g., at what point consumers should be prompted to log in).

The second essay examines how the duration of a promotional deal affects consumers' uptake of the offered promotion. At the core of this paper is the idea that the interplay between the greater flexibility provided by a longer redemption window and the greater urgency induced by a shorter redemption window tends to drive consumers' responses to a promotional offer. The key finding is that whether a shorter or a longer redemption window renders consumers more likely to respond to a promotional offer depends on their mental readiness to act when they encounter the offer (i.e., whether they are in a more deliberative versus a more implemental mindset). When consumers are in a deliberative mindset, longer redemption windows tend to be

more effective than shorter ones. The opposite is true when consumers are in an implemental mindset. This two-essay dissertation advances our understanding of the nuanced role of deliberative and implemental mindsets in consumer decision making.

Note: This dissertation has been written by Hyoseok Kim. Any reference to “we” anticipates joint submission to the target journal.

REFERENCES

- Armor, David A. and Shelley E. Taylor (2003), “The Effects of Mindset on Behavior: Self-Regulation in Deliberative and Implemental Frames of Mind,” *Personality and Social Psychology Bulletin*, 29 (1), 86-95.
- Brandstätter, Veronika and Elisabeth Frank (2002), “Effects of Deliberative and Implemental Mindsets on Persistence in Goal-Directed Behavior.” *Personality and Social Psychology Bulletin*, 28 (10), 1366-1378.
- Dhar, Ravi, Joel Huber, and Uzma Khan (2007), “The Shopping Momentum Effect,” *Journal of Marketing Research*, 44 (3), 370-378.
- Galinsky, Adam D., Derek D. Rucker, and Joe C. Magee (2014), “Power: Past Findings, Present Considerations, and Future Directions,” in *APA Handbook of Personality and Social Psychology*, Vol. 3, *Interpersonal Relationships*, ed. M. Mikulincer, J. Simpson, and P. Shaver, Washington, DC: American Psychological Association.
- Hamilton, Ryan, Kathleen D. Vohs, Anne-Laure Sellier, and Tom Meyvis (2011), “Being of Two Minds: Switching Mindsets Exhausts Self-Regulatory Resources,” *Organizational Behavior and Human Decision Processes*, 115 (1), 13-24.

- Higgins, E. Tory (1998), "Promotion and Prevention: Regulatory Focus as a Motivational Principle," in *Advances in Experimental Social Psychology*, Vol. 30, ed. P. Zanna Mark, New York: Academic Press, 1-46.
- Keller, Lucas and Peter M. Gollwitzer (2017), "Mindsets Affect Risk Perception and Risk-Taking Behavior," *Social Psychology*, 48 (10), 135-147.
- Lee, Leonard and Dan Ariely (2006), "Shopping Goals, Goal Concreteness, and Conditional Promotions," *Journal of Consumer Research*, 33 (1), 60-70.
- Taylor, Shelley E. and Peter M. Gollwitzer (1995), "Effects of Mindset on Positive Illusions," *Journal of Personality and Social Psychology*, 69 (2), 213-226.
- Trope, Yaacov and Nira Liberman (2010), "Construal-Level Theory of Psychological Distance," *Psychological Review*, 117 (2), 440-463.
- Tu, Yanping and Dilip Soman (2014), "The Categorization of Time and Its Impact on Task Initiation," *Journal of Consumer Research*, 41 (3), 810-822.
- Xu, Alison Jing and Robert S. Wyer Jr. (2007), "The Effect of Mind-sets on Consumer Decision Strategies," *Journal of Consumer Research*, 34 (4), 556-566.
- Zhao, Min, Leonard Lee, and Dilip Soman (2012), "Crossing the Virtual Boundary: The Effect of Task-Irrelevant Environmental Cues on Task Implementation," *Psychological Science*, 23 (10), 1200-1207.

PREFACE

This thesis is an original work by Hyoseok Kim. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “The Logged-in Shopper (Pro00078213),” January 15, 2018, and Project Name “Mindsets and Choice Behavior (Pro00068650),” November 25, 2016. My advisor Professor Gerald Häubl supervised the design of experiments and the collection of data.

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TABLE OF CONTENTS

ABSTRACT	ii
PREFACE	vi
ACKNOWLEDGMENTS	vii
Essay 1 The Logged-in Shopper: How Consumer Identification Affects Purchase Behavior	1
.....	1
THEORETICAL FRAMEWORK	4
EXPERIMENT 1	11
<i>Method</i>	12
FIGURE 1 EXPERIMENT STIMULI	14
<i>Results</i>	14
FIGURE 2 RESULTS OF EXPERIMENT 1	15
<i>Discussion</i>	16
EXPERIMENT 2	17
<i>Method</i>	17
<i>Results</i>	18
FIGURE 3 RESULTS OF EXPERIMENT 2	19
<i>Discussion</i>	19
EXPERIMENT 3	20
<i>Method</i>	20
<i>Results</i>	21
FIGURE 4 RESULTS OF EXPERIMENT 3	22
<i>Discussion</i>	23
EXPERIMENT 4	23
<i>Method</i>	24
<i>Results</i>	24
FIGURE 5 RESULTS OF EXPERIMENT 4	25
<i>Discussion</i>	26
EXPERIMENT 5	26
<i>Method</i>	26
<i>Results</i>	27
FIGURE 6 RESULTS OF EXPERIMENT 5	29
<i>Discussion</i>	29
GENERAL DISCUSSION	30

REFERENCES	33
Essay 2 Exploding Offers: Consumer Response to Time-Limited Promotional Deals	43
THEORETICAL FRAMEWORK	47
FIGURE 1 THEORETICAL FRAMEWORK	52
EXPERIMENT 1A	53
<i>Method</i>	53
<i>Results</i>	54
FIGURE 2 RESULTS OF EXPERIMENT 1A	56
<i>Discussion</i>	56
EXPERIMENT 1B	57
<i>Method</i>	57
<i>Results</i>	58
FIGURE 3 RESULTS OF EXPERIMENT 1B	59
<i>Discussion</i>	59
EXPERIMENT 2	60
<i>Method</i>	60
<i>Results</i>	61
FIGURE 4 RESULTS OF EXPERIMENT 2	62
FIGURE 5 MODERATED MEDIATION ANALYSIS	63
<i>Discussion</i>	64
EXPERIMENT 3	64
<i>Method</i>	64
<i>Results</i>	65
FIGURE 6 RESULTS OF EXPERIMENT 3	67
<i>Discussion</i>	67
EXPERIMENT 4	67
<i>Method</i>	68
FIGURE 7 EXPERIMENT STIMULI – PURCHASE AT TIME 1	70
FIGURE 8 EXPERIMENT STIMULI – PURCHASE AT TIME 2	70
<i>Results</i>	70
FIGURE 9 RESULTS OF EXPERIMENT 4 – PURCHASE IN GENERAL.....	72
FIGURE 10 RESULTS OF EXPERIMENT 4 – PURCHASE AT TIME 1 AND TIME 2	74
<i>Discussion</i>	74
GENERAL DISCUSSION	75
REFERENCES	79

COMPREHENSIVE LIST OF REFERENCES	85
ESSAY 1 APPENDIX: EXPERIMENTAL PARADIGM (SAMPLE SCREENSHOTS)	100
<i>Figure 1A-1 Store Entry Stage in the Identification at the Door Condition</i>	100
<i>Figure 1A-2 Product Options in the Identification at the Door Condition</i>	101
<i>Figure 1A-3 Purchase Completion Stage in the Identification at the Door Condition</i>	101
<i>Figure 1A-4: Store Entry Stage in the Identification at Checkout Condition</i>	102
<i>Figure 1A-5 Product Options in the Identification at Checkout Condition</i>	102
<i>Figure 1A-6 Purchase Completion Stage in the Identification at Checkout Condition</i>	103
<i>Figure 1A-7 (Experiment 2) The Activation of “Deliberative Mindset”</i>	104
<i>Figure 1A-8 (Experiment 2) The Activation of “Implemental Mindset”</i>	105
<i>Figure 1A-9 (Experiment 3) Water Bottle Product Options</i>	105
<i>Figure 1A-10 (Experiment 3) CAPTCHA at the Door</i>	106
<i>Figure 1A-11 (Experiment 3) CAPTCHA at Checkout</i>	106
<i>Figure 1A-12 (Experiment 4) Guest Identification at the Door</i>	107
<i>Figure 1A-13 (Experiment 4) Guest Identification at Checkout</i>	107
<i>Figure 1A-14 (Experiment 5) High Effort Identification at the Door</i>	108
<i>Figure 1A-15 (Experiment 5) Low Effort Identification at the Door</i>	108
ESSAY 2 APPENDIX: EXPERIMENTAL PARADIGM (SAMPLE SCREENSHOTS)	109
<i>Figure 2A-1 (Experiment 1A) The Activation of “Deliberative Mindset”</i>	109
<i>Figure 2A-2 (Experiment 1A) The Activation of “Implemental Mindset”</i>	110
<i>Figure 2A-3 (Experiment 1A) “Home Depot” Promotional Offers (Short versus Long)</i>	110
<i>Figure 2A-4 (Experiment 1B) “Best Buy” Promotional Offers (Short versus Long)</i>	111
<i>Figure 2A-5 (Experiment 2) “Apple” Promotional Offers (Short versus Long)</i>	111
<i>Figure 2A-6 (Experiment 3) “Disney Store” Promotional Offers (Short versus Long)</i>	112
<i>Figure 2A-7 (Experiment 3) “HP Ink & Cartridges Store” Promotional Offers</i>	112
<i>Figure 2A-8 (Experiment 4) Mindset Manipulation Instructions</i>	113
<i>Figure 2A-9 (Experiment 4) The Activation of “Deliberative Mindset”</i>	113
<i>Figure 2A-10 (Experiment 4) The Activation of “Implemental Mindset”</i>	114
<i>Figure 2A-11 (Experiment 4) Shorter versus Longer Redemption Window Promotions</i>	114
<i>Figure 2A-12 (Experiment 4) Purchase Completion</i>	115

Essay 1

The Logged-in Shopper: How Consumer Identification Affects Purchase Behavior

ABSTRACT

The completion of purchases typically requires shoppers to reveal their identity (e.g., by logging in) at some point. Such identification can be prompted either before a consumer is permitted to enter the store (i.e., “at the door”) or as part of finalizing a purchase transaction (i.e., “at checkout”). This research posits that although an at-the-door identification request may deter store entry, it tends to activate an implemental mindset in those consumers who choose to enter, rendering them more likely to ultimately make a purchase than in the case of at-checkout identification. In addition, we hypothesize that self-identity salience, prompted by identification, is critical for the activation of an implemental mindset, implying that the effect of an at-the-door identification request on purchase behavior is driven by the requirement to reveal personal information. Identification may require effort, and we further propose that the purchase-promoting effect of an at-the-door identification request is amplified when identification entails greater effort. Evidence from five experiments supports this theorizing. We also demonstrate that the purchase-promoting effect of at-the-door identification requests tends to outweigh its detrimental impact on store entry. In addition to advancing our conceptual understanding of the psychological dynamics of the shopping process, this research provides insights that have important practical implications for the design of shopping environments.

Keywords: consumer identification, login, shopping behavior, implemental mindset, self-identity, exerted effort.

Consumer identification is now Rome for nearly every purchase—all purchases must lead to it. Shoppers routinely reveal their identity to sellers by using their identifying credentials (e.g., email address) to complete their purchases. Such identification can be prompted either before a consumer is permitted to enter the store (i.e., “at the door”) or as part of finalizing a purchase transaction (i.e., “at checkout”). An at-checkout identification request is more common than an at-the-door request in current marketing practices (Schaupp and Belanger 2005). Being confronted with an identification request at the beginning of the shopping process may deter consumers from entering a store for a variety of reasons, including an aversion to the effort that might be required to comply with the request and privacy concerns (Schaupp and Belanger 2005; Flavián and Guinalíu 2006; Jiang et al. 2010; Javadi et al. 2012). Moreover, prior research has demonstrated that disrupting the continuity of online shopping in this way can reduce consumers’ purchase motivation (McDowell et al. 2016). It would be in a seller’s best interest to minimize the barriers to store entry by deferring the request for shopper identification until checkout.

The present research challenges this intuition. It does so by examining the psychological dynamics that govern how the timing of consumer identification influences purchase behavior. Specifically, this work aims to examine the interplay between the consumer’s inclination to enter a store and their inclination to make a purchase given that they have entered the store, and how an at-the-door identification request tends to outweigh its detrimental impact on store entry. While past research suggests that requiring at-the-door identification deters store entry (McDowell et al. 2016), we propose that it also activates an implemental mindset in those consumers who choose to enter, rendering them more likely to make a purchase than if they are required to identify at-checkout. In addition, we extend our theorizing to the moderating role of

self-identity. We propose that the salience of one's self-identity, prompted by identification, is critical to activating an implemental mindset. As identification may require effort, the current research theorizes that the amount of effort exerted by consumers in the identification process moderates the effect of identification at the door.

This work makes several contributions to theory and practice. First, this research advances the understanding of how contextual factors common on online shopping platforms can trigger an implemental mindset and drive increased purchase completion. Prior research has centered on how goal-relevant situational tasks activate an implemental mindset (Taylor and Gollwitzer 1995; Brandstätter and Frank 2002; Keller and Gollwitzer 2017). However, the present work shows that simple situational cues that are noncentral to a goal can activate an implemental mindset. Second, we provide insight into how an implemental mindset affects consumers' purchase behaviors. Although prior work implies that an implemental mindset may signal to consumers their commitment to their shopping activity and influence how they construct their preferences (Büttner, Florack, and Görizt 2013; Xu and Wyer 2007; Lee and Ariely 2006), little is known about how exactly consumers transit from the implemental mindset phase to the action phase. This work identifies how an implemental mindset evokes consumers' action readiness to the desired outcomes, and how it, in turn, reduces the psychological barriers to initiating their purchase behavior. Third, we uncover the critical role played by the salience of one's self-identity—we show that this salience is essential to activating an implemental mindset during the identification process. Fourth, we demonstrate that the amount of effort a consumer exerts in the identification process moderates the effect of identification at the door. This work examines how experiencing more effort in the identification process enhances an implemental mindset, rendering consumers more likely to make a purchase. Finally, we contribute to

marketing practice by providing managers with pragmatic guidance regarding how the timing of their request to consumers to log into a website affects purchase behavior. Although identification requirements are a well-established barrier to store entry, we show that the net impact of the early identification requirement on purchase is positive because of its effect on consumers' mindset.

THEORETICAL FRAMEWORK

Consumer Identification

With the rise of digital retail platforms, consumers are increasingly interacting with retailers through websites and apps (Schaupp and Belanger 2005). Consumers tend to look for a product of interest by visiting a website or app, and once a particular product has been found, they can purchase the chosen product only if they provide personally identifying information at checkout. Consumer identification, which is used by online businesses to ensure that consumers provide information that is associated with their personal identity (Lee and Yurchisin 2011), plays a vital role in the overall experience consumers have when shopping online, influencing their satisfaction and purchase behaviors (Schaupp and Belanger 2005; Lee and Yurchisin 2011; Lee et al. 2012).

Consumer identification has been widely explored in consumer behavior (Dahlen et al. 2003; Liu and Shrum 2002; O'Cass 2000). Prior research has established that consumer identification induces consumers' concerns for privacy, resulting in less purchase motivation (Van Slyke et al. 2006). For instance, concern about privacy during the identification process increases the psychological burden associated with identity protection, which, in turn, leads to reduced pleasure and purchase motivation (Davis, Bagozzi, and Warshaw 1992). Accordingly, high privacy concerns in the online shopping environment negatively influence consumers'

attitudes and behaviors toward online purchasing, information seeking, and surfing for entertainment (Das, Echambadi, and McCardle 2003). Thus, consumers' concerns about privacy during the identification process are serious barriers that can reduce the likelihood of a purchase.

Increasing consumers' willingness to disclose personal information during the identification process is one of the vital keys to the success of online businesses (Culnan 1993; Culnan 1995; Hoffman, Novak, and Peralta 1999; Miyazaki and Fernandez 2000). Therefore, it is of great importance that online retailers find a way to reduce consumers' privacy concerns and increase their willingness to reveal their identity during the identification process. Indeed, well-designed consumer identification interfaces are a critical contributor to consumers' overcoming their perceptions of risk and insecurity (Pennington, Wilcox, and Grover 2003; McKnight, Choudhury, and Kacmar 2002; Gefen, Karahanna, and Straub 2003; Gefen and Straub 2004). For instance, Tsai et al. (2011) show that prominently displayed privacy information during the identification process causes consumers to incorporate privacy consideration into their online purchasing decisions. Further, Cyr et al. (2009) find that using human images with facial features in the design of an identification interface induces consumers to perceive the website as more appealing, having warmth or social presence, and more trustworthy. Accordingly, King et al. (2016) show that consumer identification on a website that proffers an image of prestige produces perceptions of belonging, leads to commitment and emotional attachment, and enhances consumers' prestigious identity and sense of self-worth. This prior work demonstrates that given a well-designed interface, consumer identification stimulates consumers' self-identity and, ultimately, their purchasing behavior, thus contributing to greater consumer satisfaction.

To extend previous findings of this relation between consumer identification and self-identity, several works have highlighted how consumer identification might alter an individual's

mindset (Dholakia and Bagozzi 2001; Gunness and Oppewal 2020; Rubin et al. 2020). For instance, Walczuch and Lundgren (2004) show that a trust mindset prompted by consumer identification leads to greater shopping satisfaction and brand loyalty. Wirtz and Lwin (2009) demonstrate that requiring information disclosure during the shopping process induces a prevention-focused mindset, resulting in defensive and disruptive consumption behaviors. Together, these prior works convincingly establish that consumer identification is implicated in the activation of particular mindsets.

Despite the importance of consumer identification and its apparent relation to mindsets that influence consumer behavior, important questions remain about how, and when, consumer identification activates particular mindsets. Specifically, the influence of the timing of consumer identification (at the door versus at checkout) on mindset activation and the implications of this timing for purchase behavior have not been explored. Therefore, the current research focuses on the timing of consumer identification and shows how requiring identification at the door versus at checkout serves as a trigger for the activation of deliberative versus implemental mindsets. In the following section, we introduce deliberative versus implemental mindsets to outline our theorizing of the underlying mechanism, by which we examine how consumer identification is related to the activation of deliberative versus implemental mindsets and how, in turn, these mindsets influence purchase behavior.

Deliberative and Implemental Mindsets

Prior research has found that people's goals and mindsets are intricately related to motivation and decision-making (Gollwitzer 1990). According to Gollwitzer's (1990) mindset theory, there are two distinct stages of goal pursuit, each of which is associated with a different mindset. In the pre-decisional phase, individuals generate the pros and cons of each goal and

develop a deliberative mindset that helps evaluate the desirability of different goals. Once a choice between competing goals is made, an implemental mindset is developed to facilitate goal implementation. This type of mindset tends to be concerned with the essential elements of planning—the issues of how, when, and where situation-directed actions are to be initiated, maintained, and completed (Gollwitzer 1990; Dhar, Huber, and Khan 2007; Nenkov and Gollwitzer 2013). Deliberative mindsets lead to more attention to and better recall of outcome-related information, while implemental mindsets engender more attention to and better recall of execution-related information (Fujita et al. 2007; Bayer and Gollwitzer 2005; Gollwitzer and Keller 2016). Moreover, people who are in a deliberative mindset are inclined to be more receptive, open-minded, and critical in their thoughts, whereas people who are in an implemental mindset are more ready to take action and their thoughts are focused on execution (Gollwitzer and Kinney 1989; Taylor and Gollwitzer 1995; Fujita et al. 2007). The most noticeable feature of these deliberative versus implemental mindsets is that they persist to carry over from the task in which they are elicited to subsequent unrelated tasks and demands (Gollwitzer 1990; Fujita et al. 2007; Hamilton et al. 2010). The distinction between these two mindsets is central to this theorizing.

The present research examines how requiring at-the-door identification promotes purchase compared to requiring at-checkout identification. Consistent with previous findings (McDowell et al. 2016), we propose that when consumers are required to identify themselves at the door, it decreases entry into the store compared to identification at checkout. However, we predict that consumers who choose to identify themselves at the door during their shopping process are more likely to be in an implemental mindset than those who do not choose to identify themselves and not enter the store. This is because consumers consider their identification

behavior to be an engagement and implementation cue for their shopping. Then, consumers' information processing becomes tuned toward thinking about how to implement their goals, such as planning which product to buy and considering when, where, and how to purchase products. Consequently, we propose that consumers who engage in at-the-door identification and are thus in an implemental mindset are more likely to make a purchase.

In contrast, when identification is not required to enter an online store, we propose that consumers are more likely to enter the store, than if they are required to identify at checkout. However, consumers tend to be in a deliberative mindset because an implemental mindset is not activated through the identification process. Therefore, we expect that they tend to seek stimulation in the online store by, for instance, browsing around and discovering alternatives, and their information processing is tuned toward thinking about wishes and desires, deliberating the pros and cons of products, and evaluating whether products are interesting to them. In their assessment of desirability and feasibility, consumers in a deliberative mindset are less assured about whether or not they should purchase the product. Therefore, leaving identification until consumers reach the checkout stage reduces consumers' likelihood of making a purchase because they are more likely to be in a deliberative mindset compared to consumers who have identified at the door. The key hypotheses emerging from this theorizing are as follows:

- H1:** Requiring at-the-door (versus at-checkout) consumer identification reduces store entry.
- H2:** Requiring at-the-door (versus at-checkout) consumer identification activates an implemental mindset in those consumers who enter the store, rendering them more likely to complete their purchase.

H3: The purchase-promoting effect of at-the-door (versus at-checkout) consumer identification requests tends to outweigh its detrimental impact on store entry.

Self-Identity

Revealing personal identity is an essential step during the shopping process. We further posit that self-identity salience, prompted by identification, is critical to activating an implemental mindset. According to self-identity theory, consumers have complex self-concepts comprising many identities, and such identities can be differentially made salient (Kettle and Häubl 2011; LeBoeuf, Shafir, and Bayuk 2010). Prior self-identity research has shown that making a self-identity salient leads to an enhanced preference for products associated with that identity (Forehand and Deshpandé 2001) and decreases preference for products associated with relevant dissociative identities (Reed 2004; White and Dahl 2007; Kettle and Häubl 2011), especially when the identity is self-important (Goldstein, Cialdini, and Griskevicius 2008). Furthermore, Oyserman (2009) shows that the salience of an identity potentiates a readiness to enact identity-relevant cognitive procedures, attitudes, and behaviors. Accordingly, prior work suggests that an implemental mindset tends to be induced when the sense of self is made salient during goal pursuit (Bayer and Gollwitzer 2005). Therefore, we propose that the purchase-promoting effect of at-the-door identification requests is specifically driven by the requirement to reveal personal information. This is because an implemental mindset is more likely to be activated on the basis of actions that are perceived to have been caused by motives internal to the self rather than actions that are not incorporated with one's sense of self. We therefore hypothesize that:

H4: The purchase-promoting effect of at-the-door (versus at-checkout) consumer identification requests is driven by the requirement to reveal personal information.

Exerted Effort in the Identification Process

Identification may require effort. We propose that the amount of effort a consumer exerts in the identification process moderates the effect of identification at the door. Effort is defined as the subjective intensification of mental or physical activity in response to a performance demand (Inzlicht, Shenhav, and Olivola 2018; Eisenberger 1992). Prior work has shown that effort triggers various inferential and motivational processes that may affect consumers' decision-making processes (van Boxtel and Jessurun 1993; de Morree and Marcora 2010). For instance, consumers may draw positive inferences from their effort, such that the effort invested in the decision-making process may serve as a sign of decision quality (e.g., Schwarz et al. 1991; Rothman and Hardin, 1997; Rotliman and Schwarz 1998; Chen and Chaiken 1999; Liberman and Förster 2006; Tsai and McGill 2011). Similarly, individuals devote more effort when they believe it will help them accomplish their goals and increase their action readiness (Feldman and Lynch 1988; Bettman et al. 1998). Furthermore, greater experience of effort signals better chances of achieving those goals (Labroo and Kim 2009) and induces implementation intentions (Seo et al. 2018). Prior literature suggests that when consumers exert greater effort in a decision context, it may increase their action readiness and implementation intentions. Therefore, we propose that requiring higher-effort identification at the door enhances consumer's action readiness in an implemental mindset, resulting in greater purchase completion compared to requiring lower-effort identification at the door.

H5: The purchase-promoting effect of at-the-door (versus at-checkout) consumer identification requests is amplified when identification entails greater effort.

OVERVIEW OF EXPERIMENTS

In the next section, we present evidence from five experiments designed to test the hypothesized effect of identification at the door and provide insight into the psychological mechanism underlying this effect. All experiments entailed tasks that were incentive-compatible to examine consumers' consequential shopping behaviors. Experiment 1 shows that at-the-door identification indeed promotes purchase in a simulated online shopping task, and we reveal that this effect tends to outweigh the detrimental impact of requiring such identification at store entry. Experiment 2 replicates the results of Experiment 1 and tests whether a deliberative versus an implemental mindset is the underlying mechanism of the effect of identification at the door. Experiment 3 examines that making an identity salient during the identification process activates an implemental mindset, rendering consumers more likely to make a purchase. In Experiment 4, we take a different approach to examine the critical role of identity salience in activating an implemental mindset and increasing purchase completion through identification at the door. Finally, in Experiment 5, we show that the amount of effort consumers exert in the identification process enhances the effect of identification at the door.

EXPERIMENT 1

The objective of Experiment 1 was to provide an initial test of our hypothesis that identification at the door (versus at checkout) can render consumers more likely to make a purchase. We predict that requiring at-the-door identification reduces entry into the store compared to requiring at-checkout identification. However, requiring at-the-door identification activates an implemental mindset in those consumers who choose to enter, rendering them more likely to make a purchase than in the case of at-checkout identification.

Method

Participants and Design. We recruited 320 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Two participants were excluded from the data analysis because they did not pass the attention check question (i.e., “Please select all products that do not include chocolate”). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 318 individuals (mean age = 36.2 years; 55.1% female). In a between-subjects design, participants were randomly assigned to one of two conditions—timing of an identification request: at checkout versus at the door.

Procedure. In this experiment, participants completed a shopping task that was economically consequential in probability. First, they were instructed to imagine that they were considering the possibility of buying a new backpack at an online store called “Ubags.com.” The original price of each backpack was \$60, but to be interested in the price of the products, we provided a special offer for participants that all backpacks were discounted by 75%. Participants were told that there would be a draw at the end of the study and one participant would be chosen as the winner. The winner received a bonus, which was determined by their choice in this experiment. The winner received \$15 to pay for their chosen backpack (regular price: \$60; discounted price: \$15) if they completed a purchase, or they received the reward as an MTurk bonus if they did not purchase any of the backpacks. Before starting the shopping task, each participant was asked to provide their email address so that they could be contacted if they were the winner.

Participants were randomly assigned to either identification-at-check or identification-at-the-door conditions. Across both conditions, participants chose whether to enter the store (i.e.,

enter the store versus do not enter the store). Next, we measured participants' implemental mindsets (i.e., "How committed do you feel to purchasing a product at Ubags.com at this moment?"; "How dedicated do you feel to purchasing a product at Ubags.com at this moment?"; "How devoted do you feel to purchasing a product at Ubags.com at this moment?") on an 11-point scale (0 = not at all, 10 = very much), adapted from Gollwitzer and Kinney (1989). If participants chose to enter the store, they were presented with an overview of eight different backpacks and had to choose between two options: see a more detailed description of one of the backpacks or exit the store without making a purchase. If participants chose to exit the store, they proceeded to an unrelated study. If they chose to see the detailed description of a backpack, they could either purchase that backpack or return to the overview of the eight backpacks. If participants indicated that they wished to purchase the backpack, they saw a checkout screen with three options: complete purchase, exit store without purchase, or return to the overview. If participants completed the purchase, they were presented with purchase confirmation. Shopping satisfaction was subsequently measured using a single-item scale (i.e., "How satisfied were you with your backpack shopping experience?"; 0 = not satisfied at all, 10 = very satisfied). At the end, participants answered demographic questions (i.e., gender, age, ethnicity, and language).

The key aspect of this experiment was that participants were requested to log in at different times in two conditions. In the identification-request-at-checkout condition, participants chose whether to enter the store and there was no identification request in connection with store entry. Only, when a participant indicated their wish to purchase the backpack at checkout, they clicked their email address to reveal their identity. By contrast, in the identification-request-at-the-door condition, participants chose whether to enter the online store by logging in (i.e., login and enter the store versus do not enter the store). When a participant indicated their wish to

purchase the backpack, they completed the purchase without identity revelation. The key dependent variable was whether a participant completed the purchase of a backpack.

Figure 1. Experiment Stimuli

Identification at Checkout

ubags.com Welcome, Guest

COMPLETE YOUR PURCHASE

Black Diamond
Nitro 26



Discounted Price: ~~\$\$\$~~ → \$15

To **confirm** your purchase of this backpack at **ubags.com**, **log into your account** using your **email address**.

Your Email Address:

James.Smith@gmail.com



Log In and Complete Purchase

If you do **not** want to purchase this backpack, click the "**Exit Store Without Purchase**" button.

Exit Store Without Purchase

If you want to **go back to the overview of the available backpacks**, click [Back to Menu](#).

Identification at the Door

If you want to see the **discounted backpacks** at **Ubags.com**, **log into your account** using your **email address**. By **logging in**, you do **not** commit to making a purchase. That is, you will be **free not to buy** any of these backpacks.

Your Email Address:

James.Smith@gmail.com



Log In and Enter Store

If you do **not** want to see the **discounted backpacks** at **Ubags.com**, **do not enter the store**. Instead, you will go to **another store** and make a choice among products of a different type (**not backpacks**).

Do Not Enter Store

Results

Unconditional Purchase. We hypothesized that requiring at-the-door identification renders consumers more likely to make a purchase than requiring at-checkout identification. Per our hypothesis, a binary logistic regression revealed that a greater proportion of participants

purchased a backpack in the at-the-door condition (19.4%) than in the at-checkout condition (10.4%; Wald $\chi^2(1) = 4.89, p = .027$; see Figure 2), indicating that identification at the door leads to a greater likelihood of making a purchase compared to identification at checkout.

Store Entry and Conversion. Identification at the door decreased entry into the store (45.8%), compared to identification at checkout (57.1%; Wald $\chi^2(1) = 4.08, p = .045$). But critically, once in the store, purchase completion was more likely when identification happened at the door (42.3%) compared to at checkout (18.3%; Wald $\chi^2(1) = 7.47, p = .006$; see Figure 2).

Figure 2. Results of Experiment 1



Implemental Mindset. Participants who were required to identify themselves at the door were more likely to adopt an implemental mindset ($M = 5.48, SD = 3.29$) than those subjected to identification at checkout ($M = 4.05, SD = 3.20; F(1, 317) = 7.92, p = .005$).

Mediation Analysis. To test the mediating role of an implemental mindset, we conducted a mediation analysis using PROCESS Model 4 (Hayes 2017). First, the indirect effect was significant ($\beta = -.28, SE = .12$) with a 95% confidence interval (CI) excluding zero $[-.55, -.04]$, indicating a significant mediation of identification timing on purchase completion through an implemental mindset. At-the-door identification increased the participants' implemental mindset ($\beta = -.89, SE = .36, p = .016$), which led to higher purchase completion

($\beta = .31, SE = .05, p < .001$). After controlling for the indirect effect of an implemental mindset, the direct effect of the timing of consumer identification on purchase completion was not significant ($\beta = -.46, SE = .35, p = .18, 95\% CI = [-1.16, .22]$). In summary, an implemental mindset was the full mediator of the relationship between the timing of consumer identification and purchase completion, supporting H2.

Supplementary Results. We found that participants who required at-the-door identification reported greater shopping satisfaction ($M = 7.49, SD = 2.52$) than those required to identify themselves at checkout ($M = 6.63, SD = 2.82; F(1, 162) = 3.98, p = .048$). We also tracked each participant's exploration time for alternatives and found that participants who encountered at-the-door identification spent more time exploring alternatives ($M = 53.70, SD = 64.11$) than those subjected to at-checkout identification ($M = 38.23, SD = 30.69; F(1, 162) = 4.14, p = .001$).

Discussion

The findings of Experiment 1 provide initial support for H1 and H2. They show that, in line with our theorizing, requiring shopper identification at the door can indeed render consumers more likely to make a purchase than doing so at the checkout. We also demonstrate that identification at the door decreases entry into the store compared to identification at checkout. However, once in the store, purchase completion is more likely when identification happens at the door compared to at checkout. Although the results of Experiment 1 explain the effect of at-the-door identification, we have not directly examined whether the deliberative versus the implemental mindset is the underlying mechanism of the effect of identification at the door. The next experiment addresses this issue.

EXPERIMENT 2

The purpose of Experiment 2 was to replicate the results of Experiment 1 and to further examine the psychological mechanism that underlies the purchase-promoting effect of requesting shopper identification at the door. In Experiment 1, we ran a mediation analysis to initially test whether an implemental mindset is the psychological driver of the hypothesized effect. However, stronger evidence of the underlying mechanism should be provided. By testing how the mindset-offsetting procedure eliminates the effect of identification at the door, we provide clear support for our theorizing that an implemental mindset is responsible for the effect of identification at the door. We expect that when the mindset-offsetting procedure is included, the effects of at-checkout versus at-the-door identification on purchase completion do not emerge.

Method

Participants. We recruited 420 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Twenty participants were excluded from the data analysis because they did not pass the attention check question (i.e., “Please select all products that do not include chocolate”). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 400 individuals (mean age = 35.5 years; 46.1% female). Participants were randomly assigned to a 2 (timing of an identification request: at checkout versus at the door) x 2 (mindset offset: present versus absent) between-subjects design.

Procedure. In this experiment, participants completed a shopping task that was economically consequential in probability. In the mindset-offset-absent condition, the manipulation of identification at the door (versus at checkout) was the same as in Experiment 1.

By contrast, in the mindset-offset-present condition, we added one step to the procedure to test whether cross-manipulated deliberative versus implemental mindsets mitigate the effect of identification at the door. After participants chose to log in and enter the store in the identification-at-the-door condition, a deliberative mindset was activated by listing five potentially positive and five potentially negative consequences of switching banks. On the other hand, after participants entered the store in the identification-at-checkout condition, an implemental mindset was activated by planning the implementation of switching banks and listing five steps to execute the plan. The dependent variable was whether a participant completed the purchase of a backpack. At the end, participants reported demographic information.

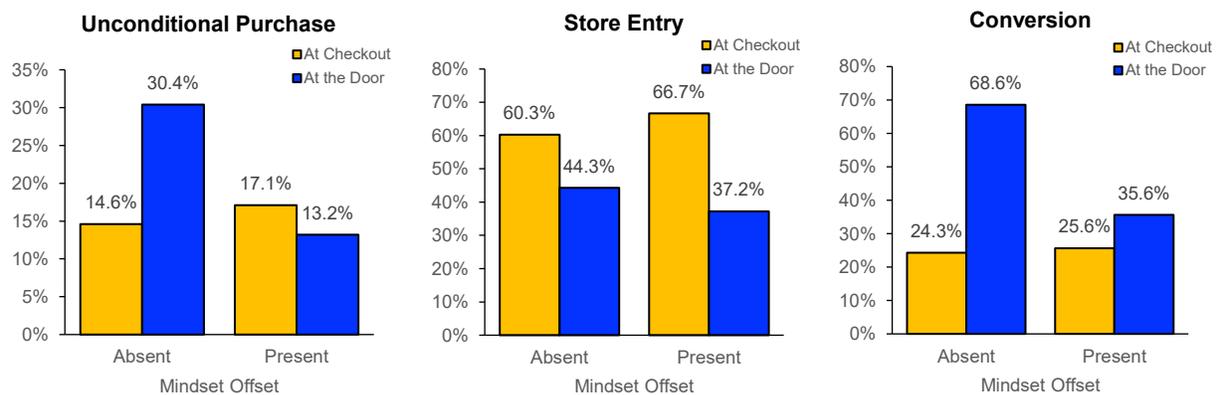
Results

Unconditional Purchase. Per our hypothesis, a binary logistic regression revealed a significant interaction between the timing of identification and the mindset-offsetting procedure on purchase completion, indicating that the effect of identification at the door was held in the mindset-offset-present condition, but not in the mindset-offset-absent condition (Wald $\chi^2(1) = 4.14, p = .042$). In the mindset-offset-absent condition, a greater proportion of participants purchased a backpack in the at-the-door condition (30.4%) than in the at-checkout condition (14.6%; Wald $\chi^2(1) = 7.95, p = .005$). By contrast, when the mindset-offsetting procedure was included, the effects of at-the-door versus at-checkout identification on unconditional purchase did not emerge (13.2% versus 17.1%; Wald $\chi^2(1) = .69, p = .406$; see Figure 3).

Store Entry and Conversion. We further found that in the mindset-offset-absent condition, we replicated the results of Experiment 1 that identification at the door decreased

entry into the store (44.3%) compared to identification at checkout (60.3%; Wald $\chi^2(1) = 5.87$, $p = .015$). But critically, once in the store, purchase completion was more likely when identification happened at the door (68.6%) compared to at checkout (24.3%; Wald $\chi^2(1) = 12.92$, $p = .001$). In the mindset-offset-present condition, identification at the door decreased entry into the store (37.2%) compared to identification at checkout (66.7%; Wald $\chi^2(1) = 20.06$, $p = .001$), but the difference in purchase completion did not replicate (35.6% versus 25.6%; Wald $\chi^2(1) = 4.89$, $p = .545$; see Figure 3). These results support our hypothesis that the activation of an implemental (versus a deliberative) mindset drives the effect of identification at the door.

Figure 3. Results of Experiment 2



Discussion

In sum, these findings support H2. Experiment 2 conceptually replicates the results of Experiment 1 and provides direct evidence of the underlying mechanism. We show that the effect of identification at the door holds in the mindset-offset-absent condition, but not in the mindset-offset-present condition. However, a few questions remain to be addressed. First, one may wonder whether the effect still holds for other product types (e.g., water bottles). Second, no alternative explanations for the effect were tested. One may argue that the sunk-cost fallacy is

responsible for the effect of identification at the door. The next experiment addresses these issues.

EXPERIMENT 3

The purpose of Experiment 3 was to examine whether the salience of one's self-identity is critical to activating an implemental mindset. Specifically, we hypothesize that the effect of at-the-door identification is driven by the requirement to reveal personal information. To test this hypothesis, we manipulated identification versus CAPTCHA in a different product context (i.e., a water bottle). We predict that identification at the door leads to greater purchase completion than at checkout. However, when identification is CAPTCHA-based, these effects do not emerge.

Method

Participants and Design. We recruited 401 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Two participants were excluded from the data analysis because they did not pass the attention check question (i.e., "Please select all products that do not include chocolate"). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 399 individuals (mean age = 33.7 years; 55.6% female). Participants were randomly assigned to a 2 (timing of an identification request: at checkout versus at the door) x 2 (self-identity: identification versus CAPTCHA) between-subjects design.

Procedure. In this experiment, participants completed a shopping task that was economically consequential in probability. First, they were instructed to imagine that they were considering the possibility of buying a new water bottle at an online store called

“Coolwaterbottle.com.” The original price of each water bottle was \$12, but to be interested in the price of the products, we provided a special offer for participants that all water bottles were discounted by 75%. Participants were told that there would be a draw at the end of the experiment and one participant would be chosen as the winner. The winner received a bonus, which was determined by their choice in this experiment. The winner received \$3 to pay for their chosen water bottle (regular price: \$12; discounted price: \$3) if they completed a purchase, or they received the reward as an MTurk bonus if they did not purchase any of the water bottles. Before starting the shopping task, each participant was asked to provide their email address so that they could be contacted if they were the winner.

In the identification condition, we manipulated the identification request at the door versus at checkout, as in Experiment 1. In the CAPTCHA condition, instead of identifying themselves, participants were asked to prove that they were not a robot at the door versus at checkout. This allowed us to examine whether identity salience in the identification process influences the activation of an implemental mindset and the consequent effects on purchase completion. At the end of the experiment, we measured participants’ self-identity salience, adapted from Campbell et al. (1996).

Results

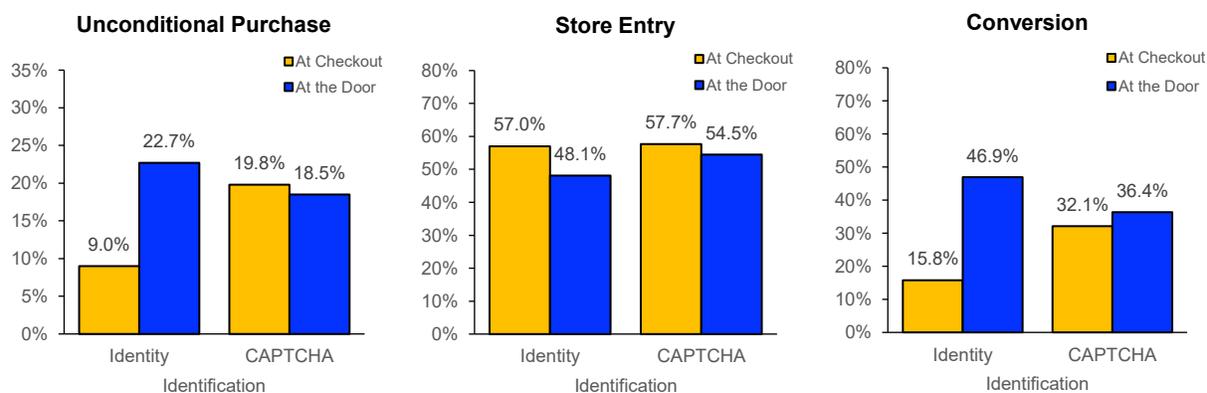
Unconditional Purchase. Per our hypothesis, a binary logistic regression revealed a significant interaction between the timing of identification and self-identity on purchase completion, indicating that the effect of identification at the door was held in the identification condition, but not in the CAPTCHA condition (Wald $\chi^2(1) = 4.65, p = .031$). Further examination showed that a greater proportion of participants purchased a water bottle in the identification-at-the-door condition (22.7%) than in the identification-at-checkout condition

(9.0%; Wald $\chi^2(1) = 6.69, p = .011$). By contrast, when identification was CAPTCHA-based, such effects on unconditional purchase did not emerge (18.5% versus 19.8%; Wald $\chi^2(1) = .49, p = .824$; see Figure 4).

Store Entry and Conversion. We further found that in the identification condition, identification at the door decreased entry into the store (48.1%) compared to identification at checkout (57.0%; Wald $\chi^2(1) = 4.24, p = .039$). But critically, once in the store, purchase completion was more likely when identification happened at the door (46.9%) compared to at checkout (15.8%; Wald $\chi^2(1) = 12.96, p = .001$). By contrast, when identification is CAPTCHA-based, there were no such effects on store entry (54.5% versus 57.7%; Wald $\chi^2(1) = .27, p = .598$) and purchase completion of a chosen water bottle (36.4% versus 32.1%; Wald $\chi^2(1) = .07, p = .793$; see Figure 4). These results indicate that the effect of identification at the door depends on whether identification makes consumers' identity salient.

Self-Identity Salience. As predicted, we found that identification induced the salience of one's self-identity ($M = 7.39, SD = 2.29$) compared to the CAPTCHA task ($M = 5.98, SD = 3.11$; $F(1, 215) = 14.36, p < .001$).

Figure 4. Results of Experiment 3



Discussion

Experiment 3 indicates that the effect of at-the-door identification is driven by the requirement to reveal personal information, supporting H4. We found that identity salience in the identification process influences the activation of an implemental mindset and the consequent effects on purchase completion in a different product domain. This experiment also rules out an alternative explanation for our findings. One might argue that the sunk-cost fallacy is responsible for the effects on purchase completion. The sunk-cost fallacy suggests that the more resources individuals have invested in a particular project, the more committed they are to it (Arkes and Blumer 1985). However, if the sunk-cost fallacy is the driver of the effect of identification at the door compared to at checkout, CAPTCHA at the door should also lead to greater purchase completion because solving a CAPTCHA requires at least as much effort and commitment as a single click confirming one's email address. However, as demonstrated by these results, this was not the case.

EXPERIMENT 4

In Experiment 4, we took a different approach to examine the critical role of identity salience in activating an implemental mindset and increasing purchase completion through identification at the door. A common feature of online shopping platforms is the option of shopping as a guest. By manipulating different identification types (i.e., user identification versus guest identification), we examined our prediction that the effect of identification at the door is dependent on identity salience. Specifically, we predict that while identification at the door compared to at checkout renders consumers more likely to make a purchase, this effect does not hold when identification is guest-based rather than user-based.

Method

Participants and Design. We recruited 415 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Fifteen participants were excluded from the data analysis because they did not pass the attention check question (i.e., “Please select all products that do not include chocolate”). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 400 individuals (mean age = 35.1 years; 49.5% female). Participants were randomly assigned to a 2 (timing of an identification request: at checkout versus at the door) x 2 (identification type: user identification versus guest identification) between-subjects design.

Procedure. In this experiment, participants completed a shopping task that was economically consequential in probability. In the user identification condition, the manipulation of identification at the door (versus at checkout) was the same as in Experiment 1. In the guest identification condition, however, each participant was asked to indicate whether they were a guest, rather than confirm their email address at the door or at checkout. At the end of the experiment, we measured participants’ self-identity salience, adapted from Campbell et al. (1996). The dependent variable was whether a participant completed the purchase of a backpack.

Results

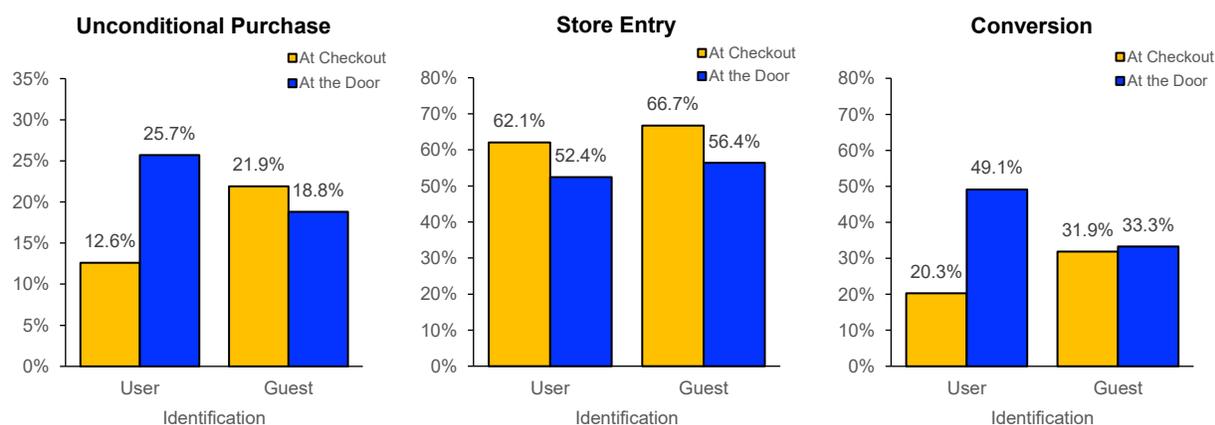
Unconditional Purchase. Per our hypothesis, a binary logistic regression revealed a significant interaction between the timing of identification and identification type on purchase completion, indicating that the effect of identification at the door was held in the user identification condition, but not in the guest identification condition (Wald $\chi^2(1) = 4.39, p = .036$; see Figure 5). Further examination showed that in the user identification condition, a greater

proportion of participants purchased a backpack in the at-the-door condition (25.7%) than in the at-checkout condition (12.6%; Wald $\chi^2(1) = 5.54, p = .019$). By contrast, when identification was guest-based, such effects on unconditional purchase did not emerge (18.8% versus 21.9%; Wald $\chi^2(1) = .30, p = .582$).

Store Entry and Conversion. Identification at the door decreased entry into the store (52.4%) compared to identification at checkout (62.1%; Wald $\chi^2(1) = 4.29, p = .038$). But critically, once in the store, purchase completion was more likely when identification happened at the door (49.1%) compared to at checkout (20.3%; Wald $\chi^2(1) = 9.17, p = .002$). On the other hand, when identification was guest-based, these were no such effects on store entry (56.4% versus 66.7%; Wald $\chi^2(1) = 2.06, p = .182$) and purchase completion of a chosen backpack (33.3% versus 31.9%; Wald $\chi^2(1) = .02, p = .877$; see Figure 5).

Self-Identity Salience. As predicted, we found that user identification induced the salience of one's self-identity ($M = 7.48, SD = 2.17$) compared to guest identification ($M = 6.54, SD = 3.35; F(1, 244) = 6.64, p = .010$).

Figure 5. Results of Experiment 4



Discussion

In Experiment 4, we examine the critical role of identity salience in activating an implemental mindset in a different identification setting (e.g., user versus guest identification). We show that while identification at the door (compared to at checkout) renders consumers more likely to make a purchase when it is user-based, the effect of identification at the door does not hold when identification is guest-based. These results indicate that the effect of identification at the door depends on whether identification makes consumers' identity salient.

EXPERIMENT 5

The purpose of Experiment 5 was to examine whether the amount of effort a consumer exerts in the identification process moderates the effect of identification at the door. Specifically, we hypothesize that the purchase-promoting effect of at-the-door identification requests is amplified when identification entails greater effort. To test this hypothesis, we manipulated the amount of effort required by the identification procedure. This allowed us to examine whether a higher effort for identification at the door boosts an implemental mindset and the consequent effects on purchase completion.

Method

Participants and Design. A total of 371 undergraduate students at a major North-American university participated in the experiment for course credit (mean age = 19.8 years; 46.7% female). Participants were randomly assigned to a 2 (identification request: at the door versus at checkout) x 2 (effort associated with identification: high versus low) between-subjects design.

Procedure. In this experiment, participants completed a shopping task that was economically consequential in probability. First, they were instructed to imagine that they were

considering the possibility of buying a new water bottle at an online store called “Coolwaterbottle.com.” The original price of each water bottle was \$8, but to be interested in the price of the products, we provided a special offer for participants that all water bottles were discounted by 75%. Participants were told that there would be a draw at the end of the experiment and one participant would be chosen as the winner. The winner received a bonus, which was determined by their choice in this experiment. The winner received \$2 to pay for their chosen water bottle (regular price: \$8; discounted price: \$2) if they completed a purchase, or they received the reward as a participation bonus if they did not purchase any of the water bottles. Before starting the shopping task, each participant was asked to provide their university email address so that they could be contacted if they were the winner.

In the low-effort identification condition, the manipulation of identification at the door versus at checkout was the same as in Experiment 1. However, in the high-effort identification condition, rather than only confirming their email address, participants were asked to enter the 7-digit verification code to log in to enter the store or to complete their purchase at checkout. Finally, we measured participants’ effort associated with identification (Labroo and Kim 2009) and shopping satisfaction (i.e., “How satisfied were you with your water bottle shopping experience?”) on an 11-point scale (0 = not at all, 10 = very much). The dependent variable was whether a participant completed the purchase of a water bottle.

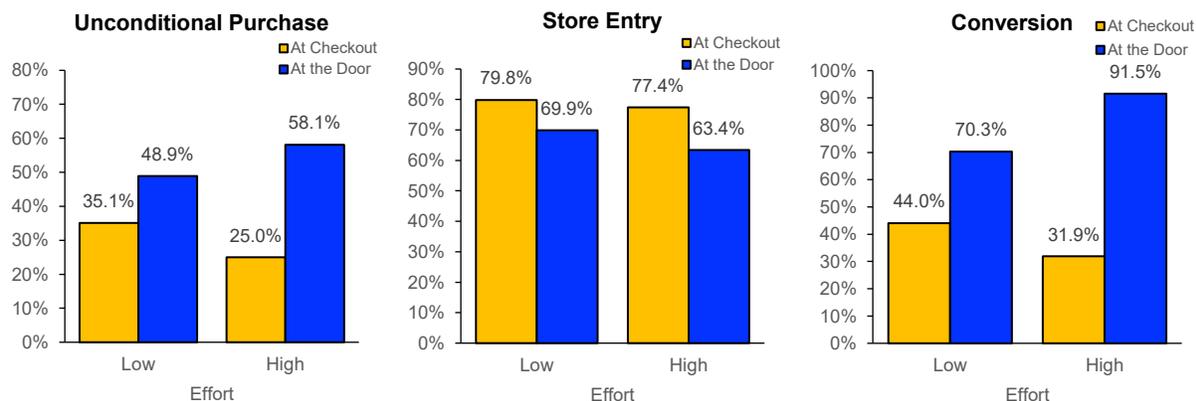
Results

Manipulation Check. In the high-effort condition, participants put more effort into identification ($M = 4.12$, $SD = 3.03$) than in the low-effort condition ($M = 2.91$, $SD = 2.54$; $F(1, 266) = 12.67$, $p < .001$).

Unconditional Purchase. Per our hypothesis, a binary logistic regression revealed a significant interaction between the timing of identification and exerted effort on purchase completion, indicating that the effect of identification at the door was significantly greater in the high-effort identification condition than in the low-effort identification condition (Wald $\chi^2(1) = 4.22, p = .040$; see Figure 6). In the high-effort identification condition, a greater proportion of participants purchased a water bottle in the at-the-door condition (58.1%) than in the at-checkout condition (25.0%; Wald $\chi^2(1) = 9.53, p < .001$), indicating that identification at the door with greater effort significantly enhanced overall purchase completion compared to identification at checkout. In the low-effort identification condition, a greater proportion of participants purchased a water bottle in the at-the-door condition (48.9%) than in the at-checkout condition (35.1%; Wald $\chi^2(1) = 9.53, p = .013$), indicating that identification at the door with lower effort led to greater purchase completion compared to identification at checkout.

Store Entry and Conversion. We further found that in the high-effort condition, identification at the door reduced entry into the store (63.4%) compared to identification at checkout (77.4%; Wald $\chi^2(1) = 4.11, p = .032$). However, once in the store, purchase completion was significantly more likely when identification happened at the door (91.5%) compared to at checkout (31.9%; Wald $\chi^2(1) = 34.31, p < .001$). In the low-effort condition, identification at the door decreased entry into the store (69.9%) compared to identification at checkout (79.8%; Wald $\chi^2(1) = 3.19, p = .040$). But critically, once in the store, purchase completion was more likely when identification happened at the door (70.3%) compared to at checkout (44.0%; Wald $\chi^2(1) = 7.69, p = .006$; see Figure 6).

Figure 6. Results of Experiment 5



Shopping Satisfaction. We found that there is a significant interaction between the timing of identification and the required effort on shopping satisfaction ($F(1, 368) = 7.96, p < .001$). In the high-effort condition, participants who encountered at-the-door identification reported significantly greater shopping satisfaction ($M = 6.81, SD = 2.01$) than in the case of at-checkout identification ($M = 4.14, SD = 2.52; F(1, 370) = 43.35, p < .001$). In the low-effort condition, participants who encountered at-the-door identification reported greater shopping satisfaction ($M = 5.55, SD = 2.07$) than those subjected to at-checkout identification ($M = 4.45, SD = 2.39; F(1, 370) = 8.09, p = .005$). These results indicate that the effect of identification at the door is significantly greater in the high-effort identification condition than in the low-effort identification condition.

Discussion

In Experiment 5, we examine whether the amount of effort a consumer exerts in the identification process moderates the effect of identification at the door. We show that the purchase-promoting effect of at-the-door identification requests is amplified when identification entails greater effort.

GENERAL DISCUSSION

The present research examines how the timing of consumer identification influences purchase behavior. Previous research suggests that it is in a firm's best interest to minimize consumers' effort until checkout (Akrimi 2016). We challenge this intuition by showing that an identification request at the door encourages consumers to purchase more than identification at checkout. In Experiment 1, consistent with previous findings (McDowell et al. 2016), we show that when participants are required to identify themselves at the door, it decreases entry into the store compared to identification at checkout. However, we find that participants who choose to identify themselves at the door during their shopping process are more likely to be in an implemental mindset, compared to those who do not choose to enter. Consequently, we show that participants who engage in at-the-door identification and are thus in an implemental mindset are more likely to make a purchase, compared to at-checkout identification. In Experiment 2, we replicate the results of Experiment 1 and further examine the psychological mechanism that underlies the purchase-promoting effect of requesting shopper identification at the door. Experiment 3 shows that the effect of identification at the door depends on whether identification makes consumers' identity salient. We demonstrate that identification at the door leads to greater purchase completion than at checkout. However, when identification is CAPTCHA-based, these effects do not emerge. In Experiment 4, we take a different approach to examine the critical role of identity salience in activating an implemental mindset and increasing purchase completion through identification at the door. We examine that the effect of identification at the door holds in the user identification condition, but not in the guest identification condition. Finally, in Experiment 5, we test whether the amount of effort a consumer exerts in the identification process moderates the effect of identification at the door. Results show that the purchase-

promoting effect of at-the-door identification requests is amplified when identification entails greater effort.

The findings reported here indicate that consumer identification at the door activates an implemental mindset and leads to greater purchase completion in an online shopping environment. The findings are in line with the central feature of mindsets. In particular, consumer identification acts as a way to facilitate making a purchase, as it is a necessary step in completing an online transaction. The present research provides initial evidence that consumers consider their identification to be an implementational cue to shopping behavior and that they are more likely to engage in thinking about purchasing products.

Furthermore, the findings of Experiment 3 rule out an alternative explanation consistent with the notion of the sunk-cost fallacy. If the sunk-cost fallacy is the driver of the effect of identification at the door compared to at checkout, CAPTCHA at the door should also lead to greater purchase completion because solving a CAPTCHA requires at least as much effort as a single click confirming one's email address. However, as we demonstrated in Experiment 3, this was not the case.

There are a few limitations to the present research. First, we used an artificial login environment. In all experiments, participants logged into a hypothetical website. Further work is needed to shed light on how an existing ID on an online website influences consumers' purchase likelihood. Second, this paper focuses on a setting in which a participant is presented with only a few alternatives with constrained product information. Future research could further investigate how larger numbers of alternatives after consumer identification influence their purchase completion. Last, this work focused on classic login behavior. There are different types of

login—using fingerprint, retinal scanning, or facial recognition—and how these new types of consumer identification can influence consumers' purchase completion should be examined.

This work has practical implications. Marketers need to understand how the timing of their request to consumers to log into a website will affect purchase behavior. Although identification requirements are a well-established barrier to store entry, we show that the net impact of an at-the-door identification requirement on purchase completion is positive because of its effect on consumers' mindset.

Finally, the present research contributes to the choice architecture literature (Thaler and Sunstein 2008) by demonstrating the large impact of a subtle implementational cue on consumers' choice behavior. Given the identification setting in the online shopping environment, our findings provide room for optimism about using identification signs to nudge consumers to make a purchase. The present research provides some guidance in this regard by suggesting that online retailers can benefit from providing identification settings at the door in a shopping environment.

REFERENCES

- Akrimi, Yosra (2016), "Usability, Interactivity, Website Personality and Consumers' Responses: A Case of Internet Service Provider," *International Journal of Electronic Marketing and Retailing*, 7 (3), 204-228.
- Arkes, Hal R. and Catherine Blumer (1995), "The Psychology of Sunk Cost," *Organizational Behavior and Human Decision Processes*, 35 (1), 124-140.
- Ashforth, Blake E. and Fred Mael (1989), "Social Identity Theory and the Organization," *Academy of Management Review*, 14 (1), 20-39.
- Bayer, Ute C. and Peter M. Gollwitzer (2005), "Mindset Effects on Information Search in Self-Evaluation," *European Journal of Social Psychology*, 35 (3), 313-327.
- Belanger, France, Janine S. Hiller, and Wanda J. Smith (2002), "Trustworthiness in Electronic Commerce: The Role of Privacy, Security, and Site Attributes," *Journal of Strategic Information Systems*, 11 (3), 245-270.
- Brandstätter, Veronika and Elisabeth Frank (2002), "Effects of Deliberative and Implemental Mindsets on Persistence in Goal-Directed Behavior," *Personality and Social Psychology Bulletin*, 28 (10), 1366-1378.
- Bettman, James R., Mary Frances Luce, and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25 (3), 187-217.
- Büttner, Oliver B., Arnd Florack, and Anja S. Göritz (2013), "Shopping Orientation and Mindsets: How Motivation Influences Consumer Information Processing During Shopping," *Psychology & Marketing*, 30 (9), 779-793.

- Campbell, Jennifer D., Paul D. Trapnell, Steven J. Heine, Ilana M. Katz, Loraine F. Lavalley, and Darrin R. Lehman (1996), "Self-Concept Clarity: Measurement, Personality Correlates, and Cultural Boundaries," *Journal of Personality and Social Psychology*, 70 (1), 141-156.
- Chen, Serena and Shelly Chaiken (1999), "The Heuristic-Systematic Model in Its Broader Context," In Shelly, Chaiken and Yaacove Trope (Eds.), "Dual-Process Theories in Social Psychology," (pp. 73-96). New York, NY, US: Guilford Press
- Coleman, Nicole Verrochi and Patti Williams (2013), "Feeling Like Myself: Emotion Profiles and Social Identity," *Journal of Consumer Research*, 40 (2), 203-22.
- Coyle, James R. and Esther Thorson (2001), "The Effects of Progressive Levels of Interactivity and Vividness in Web Marketing Sites," *Journal of Advertising*, 30 (3), 65-77.
- Culnan, Mary J. (1993), "How Did They Get My Name?": An Exploratory Investigation of Consumer Attitudes Toward Secondary Information Use," *MIS Quarterly*, 17 (3), 341-363.
- Culnan, Mary J. (1995), "Consumer Awareness of Name Removal Procedures: Implications for Direct Marketing," *Journal of Direct Marketing*, 9 (2), 10-19.
- Cyr, Dianne, Milena Head, Hector Larios, and Bing Pan (2009), "Exploring Human Images in Website Design: A Multi-Method Approach," *MIS Quarterly*, 33 (3), 539-566.
- Cyr, Dianne, Milena Head, Eric Lim, and Agnis Stibe (2018), "Using the Elaboration Likelihood Model to Examine Online Persuasion Through Website Design," *Information & Management*, 55 (7), 807-821.
- Dahlén, Micael, Alexandra Rasch, and Sara Rosengren (2003), "Love at First Site? A Study of Website Advertising Effectiveness," *Journal of Advertising Research*, 43 (1), 25-33.

- Das, Samar, Raj Echambadi, Michael McCardle, and Michael Lockett (2003), "The Effect of Interpersonal Trust, Need for Cognition, and Social Loneliness on Shopping, Information Seeking and Surfing on the Web," *Marketing Letters*, 14 (3), 185-202.
- Davis, Fred D., Richard P. Bagozzi, and Paul R. Warshaw (1992), "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace," *Journal of Applied Social Psychology* 22 (14), 1111-1132.
- De Morree, Helma M. and Samuele M. Marcora (2010), "The Face of Effort: Frowning Muscle Activity Reflects Effort During a Physical Task," *Biological Psychology*, 85 (3), 377-382.
- Dhar, Ravi, Joel Huber, and Uzma Khan (2007), "The Shopping Momentum Effect," *Journal of Marketing Research*, 44 (3), 370-378.
- Dholakia, Utpal and Richard P. Bagozzi (2001), "Consumer Behavior in Digital Environments," *Digital Marketing*, 9 (1), 163-200.
- Eisenberger, Robert (1992), "Learned Industriousness," *Psychological Review*, 99 (2), 248-267.
- Feldman, Jack M. and John G. Lynch (1988), "Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior," *Journal of Applied Psychology*, 73 (3), 421-435.
- Flavián, Carlos, Miguel Guinalíu, and Raquel Gurrea (2006), "The Role Played by Perceived Usability, Satisfaction and Consumer Trust on Website Loyalty," *Information & Management*, 43 (1), 1-14.
- Forehand, Mark R. and Rohit Deshpandé (2001), "What We See Makes Us Who We Are: Priming Ethnic Self-Awareness and Advertising Response," *Journal of Marketing Research*, 38 (3), 336-48.

- Fujita, Kentaro, Peter M. Gollwitzer, and Gabriele Oettingen (2007), "Mindsets and Pre-Conscious Open-Mindedness to Incidental Information," *Journal of Experimental Social Psychology*, 43 (1), 48-61.
- Gefen, David and Detmar W. Straub (2004), "Consumer Trust in B2C E-Commerce and the Importance of Social Presence: Experiments in E-Products and E-Services," *Omega*, 32 (6), 407-424.
- Gefen, David, Elena Karahanna, and Detmar W. Straub (2003), "Trust and TAM in Online Shopping: An Integrated Model," *MIS Quarterly*, 27 (1), 51-90.
- Goldstein, Noah J., Robert B. Cialdini, and Vidas Griskevicius (2008), "A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels," *Journal of Consumer Research*, 35 (3), 472-482.
- Gollwitzer, Peter M (1990), "Action Phases and Mind-sets," *Handbook of Motivation and Cognition: Foundations of Social Behavior*, Vol 2., 53-92, New York: Guilford.
- Gollwitzer, Peter M. and Ronald F. Kinney (1989), "Effects of Deliberative and Implemental Mind-sets on Illusion of Control," *Journal of Personality and Social psychology*, 56 (4), 531-542.
- Gollwitzer, Peter M. and Ute Bayer (1999), "Deliberative versus Implemental Mindsets in the Control of Action," *Dual-Process Theories in Social Psychology*, Vol. 19, 403-422, New York: Guilford.
- Gunness, Aneeshta and Harmen Oppewal (2020), "How Mindset and Store Familiarity Impact Online Stockout Responses," *International Journal of Retail & Distribution Management*, 48 (4), 326-347.

- Hamilton, Ryan, Kathleen D. Vohs, Anne-Laure Sellier, and Tom Meyvis (2011), “Being of Two Minds: Switching Mindsets Exhausts Self-Regulatory Resources,” *Organizational Behavior and Human Decision Processes*, 115 (1), 13-24.
- Hausman, Angela V. and Jeffrey Sam Siekpe (2009), “The Effect of Web Interface Features on Consumer Online Purchase Intentions,” *Journal of Business Research*, 62 (1), 5-13.
- Hoffman, Donna L., Thomas P. Novak, and Marcos Peralta (1999) “Building Consumer Trust Online,” *Communications of the ACM*, 42 (4), 80-85.
- Inzlicht, Michael, Amitai Shenhav, and Christopher Y. Olivola (2018), “The Effort Paradox: Effort is Both Costly and Valued,” *Trends in Cognitive Sciences*, 22 (4), 337-349.
- Javadi, Moshref, Hossein Dolatabadi, Mojtaba Nourbakhsh, Amir Poursaedi, and Ahmad Reza Asadollahi (2012), “An Analysis of Factors Affecting on Online Shopping Behavior of Consumers,” *International Journal of Marketing Studies*, 4 (5), 81-98.
- Jiang, Ling Alice, Zhilin Yang, and Minjoon Jun (2013), “Measuring Consumer Perceptions of Online Shopping Convenience,” *Journal of Service Management*, 24 (2), 191-214.
- Keller, Lucas and Peter M. Gollwitzer (2017), “Mindsets Affect Risk Perception and Risk-Taking Behavior,” *Social Psychology*, 48 (10), 135-147.
- Kettle, Keri L. and Gerald Häubl (2011), “The Signature Effect: Signing Influences Consumption-Related Behavior by Priming Self-Identity,” *Journal of Consumer Research*, 38 (3), 474-489.
- King, Ruth C., Richard AM Schilhavy, Charles Chowa, and Wynne W. Chin (2016), “Do Customers Identify with Our Website? The Effects of Website Identification on Repeat Purchase Intention,” *International Journal of Electronic Commerce*, 20 (3), 319-354.

- Labroo, Aparna A. and Sara Kim (2009), "The 'Instrumentality' Heuristic: Why Metacognitive Difficulty Is Desirable during Goal Pursuit," *Psychological Science*, 20 (1), 127-134.
- LeBoeuf, Robyn A., Eldar Shafir, and Julia Belyavsky Bayuk (2010), "The Conflicting Choices of Alternating Selves," *Organizational Behavior and Human Decision Processes*, 111 (1), 48-61.
- Lee, Leonard and Dan Ariely (2006), "Shopping Goals, Goal Concreteness, and Conditional Promotions," *Journal of Consumer Research*, 33 (1), 60-70.
- Lee, Jong-Eun Roselyn, Shailendra Rao, Clifford Nass, Karin Forssell, and Jae Min John (2012), "When Do Online Shoppers Appreciate Security Enhancement Efforts? Effects of Financial Risk and Security Level on Evaluations of Customer Identification," *International Journal of Human-Computer Studies*, 70 (5), 364-376.
- Lee, Zui Chih and Jennifer Yurchisin. (2011), "The Impact of Website Attractiveness, Consumer-Website Identification, and Website Trustworthiness on Purchase Intention," *International Journal of Electronic Customer Relationship Management*, 5 (3), 272-287.
- Liang, Ting-Peng and Hung-Jen Lai (2002), "Effect of Store Design on Consumer Purchases: An Empirical Study of Online Bookstores," *Information & Management*, 39 (6), 431-444.
- Liberman, Nira and Jens Förster (2006), "Inferences from Decision Difficulty," *Journal of Experimental Social Psychology*, 42 (3), 290-306.
- Liu, Yuping and Lawrence J. Shrum (2002), "What is Interactivity and Is It Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness," *Journal of Advertising*, 31 (4), 53-64.

- McDowell, William C., Rachel C. Wilson, and Charles Owen Kile Jr (2016), "An Examination of Retail Website Design and Conversion Rate," *Journal of Business Research*, 69 (11), 4837-4842.
- McKnight, D. Harrison, Vivek Choudhury, and Charles Kacmar (2002), "The Impact of Initial Consumer Trust on Intentions to Transact with a Web Site: A Trust Building Model." *Journal of Strategic Information Systems*, 11 (3), 297-323.
- Miyazaki, Anthony D. and Ana Fernandez (2000), "Internet Privacy and Security: An Examination of Online Retailer Disclosures," *Journal of Public Policy & Marketing*, 19 (1), 54-61.
- O'Cass, Aron (2000), "An Assessment of Consumers Product, Purchase Decision, Advertising and Consumption Involvement in Fashion Clothing," *Journal of Economic Psychology*, 21 (5), 545-576.
- Oyserman, Daphna (2009), "Identity-Based Motivation and Consumer Behavior," *Journal of Consumer Psychology*, 19 (3), 276-279.
- Pennington, Robin, H. Dixon Wilcox, and Varun Grover (2003), "The Role of System Trust in Business-to-Consumer Transactions," *Journal of Management Information Systems*, 20 (3), 197-226.
- Ranganathan, Chandrasekaran and Shobha Ganapathy (2002), "Key Dimensions of Business-to-Consumer Websites," *Information & Management*, 39 (6), 457-465.
- Reed II, Americus. (2004), "Activating the Self-Importance of Consumer Selves: Exploring Identity Salience Effects on Judgments," *Journal of Consumer Research*, 31 (2), 286-295.

- Rothman, Alexander J. and Curtis D. Hardin (1997), "Differential Use of the Availability Heuristic in Social Judgment," *Personality and Social Psychology Bulletin*, 23 (2), 123-138.
- Rotliman, Alexander J. and Norbert Schwarz (1998), "Constructing Perceptions of Vulnerability: Personal Relevance and the Use of Experiential Information in Health Judgments," *Personality and Social Psychology Bulletin*, 24 (10), 1053-1064.
- Rubin, Daniel, Chrissy Martins, Veronika Ilyuk, and Diogo Hildebrand (2020), "Online Shopping Cart Abandonment: A Consumer Mindset Perspective," *Journal of Consumer Marketing*, 37 (5), 487-499.
- Schaupp, Christian L. and France Bélanger (2005), "A Conjoint Analysis of Online Consumer Satisfaction," *Journal of Electronic Commerce Research*, 6 (2), 95-111.
- Schoenbachler, Denise D. and Geoffrey L. Gordon (2002), "Trust and Customer Willingness to Provide Information in Database-Driven Relationship Marketing," *Journal of Interactive Marketing*, 16 (3), 2-16.
- Schwarz, Norbert, Herbert Bless, Fritz Strack, Gisela Klumpp, Helga Rittenauer-Schatka, and Annette Simons (1991), "Ease of Retrieval as Information: Another Look at the Availability Heuristic," *Journal of Personality and Social Psychology*, 61 (2), 195-202.
- Seo, Eunjin, Erika A. Patall, Marlone D. Henderson, and Rebecca R. Steingut (2018), "The Effects of Goal Origin and Implementation Intentions on Goal Commitment, Effort, and Performance," *Journal of Experimental Education*, 86 (3), 386-401.
- Taylor, Shelley E. and Peter M. Gollwitzer (1995), "Effects of Mindset on Positive Illusions," *Journal of Personality and Social Psychology*, 69 (2), 213-226.

- Thaler, Richard H. and Cass R. Sunstein (2008), "Nudge: The Gentle Power of Choice Architecture," *New Haven, Connecticut: Yale University Press*.
- Tsai, Janice Y., Serge Egelman, Lorrie Cranor, and Alessandro Acquisti (2011), "The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study," *Information Systems Research*, 22 (2), 254-268.
- Van Boxtel, A. and M. Jessurun (1993), "Amplitude and Bilateral Coherency of Facial and Jaw-Elevator EMG Activity as an Index of Effort During a Two-Choice Serial Reaction Task," *Psychophysiology*, 30 (6), 589-604.
- Van Slyke, Craig, J. T. Shim, Richard Johnson, and James J. Jiang (2006), "Concern for Information Privacy and Online Consumer Purchasing," *Journal of the Association for Information Systems*, 7 (6), 415-444.
- Walczuch, Rita and Henriette Lundgren (2004), "Psychological Antecedents of Institution-Based Consumer Trust in E-Retailing," *Information & Management*, 42 (1), 159-177.
- White, Katherine and Darren W. Dahl (2007), "Are All Out-Groups Created Equal? Consumer Identity and Dissociative Influence," *Journal of Consumer Research*, 34 (4), 525-536.
- Wirtz, Jochen and May O. Lwin (2009), "Regulatory Focus Theory, Trust, and Privacy Concern," *Journal of Service Research*, 12 (2), 190-207.
- Xu, Alison Jing and Robert S. Wyer Jr. (2007), "The Effect of Mind-sets on Consumer Decision Strategies," *Journal of Consumer Research*, 34 (4), 556-566.
- Zeithaml, Valarie A., Arun Parasuraman, and Arvind Malhotra (2002), "Service Quality Delivery Through Websites: A Critical Review of Extant Knowledge," *Journal of the Academy of Marketing Science*, 30 (4), 362-375.

Zviran, Moshe, Chanan Glezer, and Itay Avni (2006), "User Satisfaction from Commercial Web sites: The Effect of Design and Use," *Information & Management*, 43 (2), 157-178.

Essay 2

Exploding Offers: Consumer Response to Time-Limited Promotional Deals

ABSTRACT

Promotional offers (e.g., a 10% price discount) vary in the length of their redemption window. Despite the prevalence of promotional offers in marketing practice, little is known about how the *duration* of a promotional offer affects consumers' uptake of that offer. At the core of this paper is the idea that the interplay between the greater flexibility provided by a longer redemption window and the greater urgency induced by a shorter redemption window is a key driver of consumer response to a promotional offer. This work examines these two forces and introduces a theoretical framework that identifies circumstances under which longer versus shorter redemption windows are more effective for consumers' uptake of promotional offers. Specifically, consumers' responses to the duration of a redemption window depend on the action readiness when they encounter the offer (i.e., whether they are in a more deliberative or a more implemental mindset). The key hypotheses are as follows. When consumers are in a deliberative mindset, longer redemption windows tend to be more effective than shorter ones. The opposite is true when consumers are in an implemental mindset. When purchasing hedonic or utilitarian products, the duration of redemption windows can affect promotion usage. We theorize that the interactive effect of the redemption window and mindset on consumer response to the offered promotion should be particularly pronounced in connection with hedonic consumption and attenuated in connection with utilitarian consumption. Evidence from five experiments provides clear support for this theorizing and sheds light on the conditions under which longer versus shorter redemption windows are likely to be more effective for maximizing the uptake of promotional offers.

Keywords: promotional offers, redemption window, deliberative mindset, implemental mindset, consumption type.

Promotional offers have long been one of the most effective tools for influencing consumer buying behavior. According to Statista (2021), the rate of promotion usage in the United States has been steadily growing for the past years, and in 2021, about 145 million Americans are expected to redeem promotional offers for shopping. With the popularity of promotions, merchants and businesses actively offer their promotions to target customers in order to increase sales (Hübner, Kuhn and Kühn 2016; Kogan and Herbon 2008; Martín- Herrán and Sigué 2011; Zhang et al. 2020), attract new customers (Freimer and Horsky 2008; Johnson, Tellis and Ip 2013), and enhance customer loyalty (Allender and Richards 2012; Felgate, Fearne, DiFalco, and Martinez 2012). Prior research further shows that promotional offers can enhance evaluations of promotion-related products and willingness to purchase (Chandon et al. 2000), as well as evaluations of promotion-unrelated products (Shen et al. 2012).

Despite the prevalence of promotional offers in marketing practice, little is known about how the *duration* of a promotional offer affects consumers' uptake of that offer. From a consumers' point of view, a longer redemption window should be perceived as offering greater flexibility, as it provides consumers with a greater opportunity to take advantage of the promotional offer. On the other hand, a promotional offer with a shorter redemption window induces perceived urgency, which might make consumers more likely to respond to such an offer, even though their opportunity to do so is more limited. Indeed, promotions with both short and long redemption windows are known to be successful (Matherly, Pocheptsova, and Joshi 2019). However, there is no clear understanding of the mechanisms by which shorter versus longer redemption windows influence consumers' uptake of promotional offers. The current research introduces a theoretical framework that identifies the circumstances under which either the greater flexibility provided by a longer redemption window or the greater urgency induced by

a shorter redemption window tends to drive consumer response to a promotional offer. Specifically, consumers' responses to the duration of redemption windows depend on the action readiness when they encounter the offer (i.e., whether they are in a more deliberative or a more implemental mindset) (Gollwitzer 1990; Gollwitzer and Keller 2016). We demonstrate the critical role of a deliberative versus an implemental mindset and how these mindsets interact with the duration of redemption windows to influence the uptake of promotional offers.

Three main contributions are supported by our findings. First, they deepen our understanding of how both shorter and longer redemption windows shape consumers' willingness to take advantage of the offered promotion. Prior research has shown that the characteristics of the redemption window affect promotion usage (Inman et al. 1997; Parker and Lehman 2011; Vaidyanathan and Aggarwal 2002; Aydinli, Bertini, and Lambrecht 2014). Specifically, Matherly, Pocheptsova, and Joshi (2019) have demonstrated that when consumers purchase indulgent products, they are more likely to use a shorter redemption window coupon because they believe the guilt-reducing effects of discounts fade over time. Cheema and Patrick (2008) also show that when feasibility (versus precision) concerns are highlighted, consumers prefer the expansive redemption window (i.e., "anytime") to the restrictive redemption window frame (i.e., "only"). However, there has been little understanding of *how* the duration of redemption windows affects consumers' uptake of promotional offers. The present study sheds light on the psychological forces that drive consumer response to promotional offers if they have longer versus shorter redemption windows.

Second, the present research contributes to the existing promotion literature by introducing a key moderator. We show that the mindset (deliberative versus implemental) represents a critical factor in consumers' likelihood of taking advantage of the offered

promotion. This paper demonstrates how consumers' uptake of promotional offers is driven by the interplay between the duration of redemption windows and shoppers' deliberative versus implemental mindsets.

Third, this research examines how the amount of thought consumers have given to making a purchase prior to becoming aware of the offer can activate a deliberative versus an implemental mindset. Prior work in this domain has focused on how deliberative and implemental mindsets are associated with different stages of goal pursuit (Armor and Taylor 2003; Dhar, Huber, and Khan 2007; Tu and Soman 2014; Zhao et al. 2012). However, more research is needed to identify what other factors might activate such mindsets and how they, in turn, govern consumers' decision-making processes. The current research sheds light on how deliberative versus implemental mindsets can be activated by thinking about purchasing prior to becoming aware of the promotion in shopping environments. This work also advances our understanding of the behavioral consequences of deliberative versus implemental mindsets. In particular, it examines how these mindsets promote consumers' action readiness, which, in turn, interacts with the shopping context to drive purchase decisions.

From a practical perspective, this work has important implications for managers. In particular, the insights from this research help identify the conditions under which different redemption windows are likely to be effective for maximizing the uptake of promotional offers. Moreover, this study offers guidance by identifying the contexts in which firms could benefit from activating deliberative versus implemental mindsets in shopping environments.

THEORETICAL FRAMEWORK

Duration of Promotional Offers

Promotional offers are an influential tool for increasing shoppers' store visits and purchases (Inman et al. 1997; Vaidyanathan and Aggarwal 2002; Parker and Lehman 2011). One of the prominent features of promotional offers is a redemption window. Matherly, Pocheptsova, and Joshi (2019) define the redemption window as the period during which consumers can use the promotional offer. For instance, when Best Buy announces promotional offers to consumers, it is specified for how long these offers are valid. The Best Buy promotion may involve a relatively immediate or shorter window of incentives for consumers or a longer redemption window, in which the offer is valid for many days, weeks, months, or even longer.

Understanding consumers' responses to shorter versus longer redemption windows is important for predicting the relative success of price promotions (Inman et al. 1997; Krishna and Zhang 1999).

Prior research has shown how longer versus shorter redemption windows of promotional offers influence consumer's purchase behavior (Inman and McAlister 1994; Ward and Davis 1978). Generally, consumers are more likely to respond to such an offer if it has a longer redemption window rather than a shorter one, all else being equal. Consumers expect some uncertainty about when they will have the occasion to redeem a particular offer (Simonson 1990; Kahneman and Snell 1992). A longer redemption window provides consumers with more flexibility regarding when to avail themselves of the promotion, which increases consumers' purchase motivation (Matherly, Pocheptsova, and Joshi 2019). Consumers may also prefer a longer redemption window because it reduces negative psychological reactions to time restrictions (Brehm 1966; Levav and Zhu 2009) and provides freedom of choice to maximize the

chance to get a better deal (Botti et al. 2008; Fitzsimons 2000; Ratner et al., 2008; Matherly, Pocheptsova, and Joshi 2019). Bonnici et al. (2011) show that placing time restrictions on promotional offers can limit consumers' control, which, in turn, leads to a negative effect on purchase motivation. Thus, consumers tend to prefer longer redemption windows, which give higher flexibility to their consumption choices, instead of shorter redemption windows.

On the other hand, consumers often want to take advantage of shorter rather than longer redemption windows. According to Inman and McAlister (1994), if a promotion expires earlier (i.e., shorter redemption window), people feel pressured to redeem the coupons as the coupon expiration date approaches. Prior research also shows that a short redemption window for a promotional offer increases consumers' perceived urgency, resulting in making an additional purchase and increasing the size of the purchase (Inman and McAlister 1994; Krishna and Zhang 1999). Furthermore, other scholars have argued that arousal (Zhu and Ratner, 2015), value inferences (Cialdini 1987; 2009), need for uniqueness (Fromkin and Snyder 1980), and anticipatory regret (Inman and McAlister 1994) are the possible underlying mechanisms driving consumers' willingness to take advantage of promotions with shorter redemption windows.

Despite the substantial literature on the redemption windows of promotional offers, there is no clear understanding of the mechanisms by which shorter versus longer redemption windows influence consumers' willingness to take advantage of the offered promotion. The current research proposes that consumers' responses to the duration of redemption windows depend on how much they thought about purchasing before they were aware of the offer. Specifically, we examine how consumers' responses to promotional offers with shorter versus longer redemption windows are influenced by deliberative versus implemental mindsets.

Deliberative versus Implemental Mindsets

Prior research has found that people's goals and mindsets are intricately related to motivation and decision-making (Brandstätter et al. 2015; Gollwitzer and Kinney 1989; Keller and Gollwitzer 2016). According to Gollwitzer's (1990) mindset theory, there are two distinct stages of goal pursuit, each of which is associated with different mindsets. In the pre-decisional phase, individuals generate the pros and cons of each goal and tend to be in a deliberative mindset that helps evaluate the desirability of the different goals. Once a choice between competing goals is made, an implemental mindset is developed to facilitate goal implementation. This type of mindset tends to be concerned with the essential elements of planning—the issues of how, when, and where situation-directed actions are to be initiated, maintained, and completed (Gollwitzer 1990; Gollwitzer 1999; Dhar, Huber, and Khan 2007). Deliberative mindsets lead to more attention to and better recall of outcome-related information, while implemental mindsets engender more attention to, and better recall of, execution-related information. Moreover, people who are in a deliberative mindset are inclined to be more receptive, open-minded, and critical in their thoughts, whereas people who are in an implemental mindset are more ready to take action, and their thoughts are focused on execution (Gollwitzer 1999). An important feature of these deliberative versus implemental mindsets is that they persist, carrying over from the task in which they are elicited to subsequent unrelated tasks and demands (Gollwitzer 1999; Dhar, Huber, and Khan 2007; Hamilton et al. 2011).

At the core of this paper is the idea that whether a shorter versus a longer redemption window renders consumers more likely to respond to a promotional offer depends on their action readiness at the time they encounter the offer (i.e., whether they are in a more deliberative versus a more implemental mindset). We propose that when consumers are in a deliberative mindset,

promotional offers with a longer redemption window tend to be more effective than those with a shorter window. Consumers in a deliberative mindset focus on generating the pros and cons of the received offer and evaluate a long redemption window more positively because it offers greater flexibility with respect to consumers' choice of when to act. By contrast, when consumers are in an implemental mindset, promotional offers with a shorter redemption window tend to be more effective than those with a longer one. Consumers in an implemental mindset are more ready to take action in pursuit of their desired outcomes and tend not to want to miss out on the short redemption window promotion that induces perceived urgency. The first key hypotheses emerging from our theorizing are as follows:

H1: Under a deliberative (versus implemental) mindset, promotional offers with a longer (versus shorter) redemption window tend to be more effective than those with a shorter (versus longer) window.

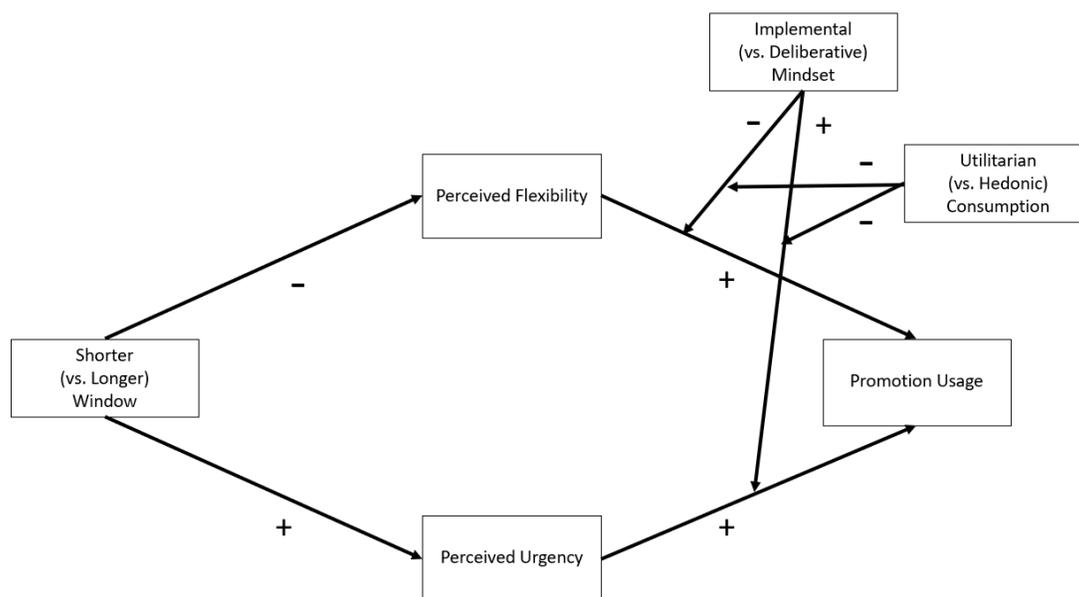
H2: This effect (H1) is driven by the interplay between the greater flexibility provided by a longer redemption window and the greater urgency induced by a shorter redemption window.

Hedonic Versus Utilitarian Consumption

When purchasing hedonic or utilitarian products, the duration of redemption windows can affect consumers' uptake of promotional offers. Given the hypothesized interactive effect of length of redemption window and mindset on promotion usage, we further propose that promotional offers for hedonic and utilitarian consumption should differentially appeal to individuals with deliberative versus implemental mindsets. Prior research shows that for utilitarian consumption, consumers are more cognitively driven, which leads to purchasing products in an efficient and timely manner to achieve their goals with a minimum of irritation

(Holbrook and Hirschman 1982; Voss et al. 2003). In contrast, for hedonic consumption, consumers prioritize the potential entertainment and enjoyment of the fun and play arising from shopping (Holbrook and Hirschman 1982). Correspondingly, we theorize that the interactive effect of the redemption window and mindset on consumer response to the offered promotion holds in connection with hedonic consumption, but this effect is attenuated in connection with utilitarian consumption. We posit that when consumers consider purchasing utilitarian products, they tend to be more cognitive and feasibility-oriented (Ratner et al. 2008). The consumption of utilitarian goods is typically instrumental, rational, and goal-oriented (Strahilevitz and Myers 1998). In this type of consumption, the freedom of choice to maximize the chance of getting a better deal is more important for consumers than making an immediate purchase decision. Consequently, we predict that consumers prefer longer redemption windows with fewer restrictions compared to shorter redemption windows, regardless of mindset. In contrast, the consumption of hedonic goods is impulsive and desirability-oriented (Childers et al. 2001). Consumers wish to find a good deal and enjoy the hunt for a good bargain (Babin et al. 1994). Consequently, in the purchase of hedonic products, consumers in an implemental mindset tend to be impulsive and are more likely to take advantage of a shorter redemption window promotion than a longer one. On the other hand, consumers in a deliberative mindset are more likely to take advantage of a longer redemption window promotion than a shorter one to enjoy and maximize their hedonic benefits in consuming promotional offers (see Figure 1).

H3: The interactive effect of redemption window and mindset on consumer response to the offered promotion holds in connection with hedonic consumption, but this effect is attenuated in connection with utilitarian consumption.

Figure 1: Theoretical Framework*OVERVIEW OF EXPERIMENTS*

We present evidence from five experiments designed to test the interactive effect of redemption windows and shoppers' mindsets on promotion usage and provide insight into the psychological mechanism underlying this effect. Experiments 1A and 1B show that when consumers are in a deliberative mindset, promotional offers with a longer redemption window tend to be more effective than those with a shorter one. By contrast, when consumers are in an implemental mindset, promotional offers with a shorter redemption window tend to be more effective than those with a longer one. Experiment 2 replicates the results of Experiments 1A and 1B and runs a moderated mediation analysis, which shows that the greater flexibility provided by a longer redemption window and the greater urgency induced by a shorter redemption window account for the relationship between the redemption window and consumers' deliberative versus implemental mindsets on promotion usage. Experiment 3 examines an important boundary condition in that the interaction between mindset and redemption window on promotion usage

holds only for hedonic, but not for utilitarian purchases. Finally, in Experiment 4, we take a different approach to activating deliberative versus implemental mindsets in a lab setting. We also test participants' consequential purchase behaviors and show the interactive effect between redemption windows and shoppers' mindsets on promotion usage. We show that under a deliberative mindset, participants respond more favorably to offers with a longer redemption window than those with a shorter one.

EXPERIMENT 1A

The objective of Experiment 1A was to understand how consumers' uptake of time-limited promotional offers is driven by the interplay between the duration of the redemption window and shoppers' mindsets when they encounter the offer. We predict that when consumers are in a deliberative mindset, promotional offers with a longer redemption window tend to be more effective than those with a shorter one. By contrast, when consumers are in an implemental mindset, offers with a shorter redemption window tend to be more effective than those with a longer one.

Method

Participants and Design. We recruited 240 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Eight participants were excluded from the data analysis because they did not pass the attention check question (i.e., "Please select all products that do not include chocolate"). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 232 individuals (mean age = 36.6 years; 53.5% female). Participants were randomly assigned to a 2 (redemption window: short versus long) x 2 (mindset: deliberative versus implemental) between-subjects design.

Procedure. First, deliberative versus implemental mindsets were manipulated in this experiment. Participants read a scenario in which they were thinking about switching banks. To activate a deliberative mindset, participants were asked to list five potentially positive and five potentially negative consequences of switching banks. To activate an implemental mindset, they were asked to plan the implementation of switching banks and list five steps required to execute this plan. Then, they completed the mindset manipulation check items (i.e., “How committed do you feel to purchasing a product at Home Depot.com at this moment?”; “How dedicated do you feel to purchasing a product at Home Depot.com at this moment?”; “How devoted do you feel to purchasing a product at Home Depot.com at this moment?”) on an 11-point scale (0 = not at all, 10 = very much), adopted from Gollwitzer and Kinney (1989).

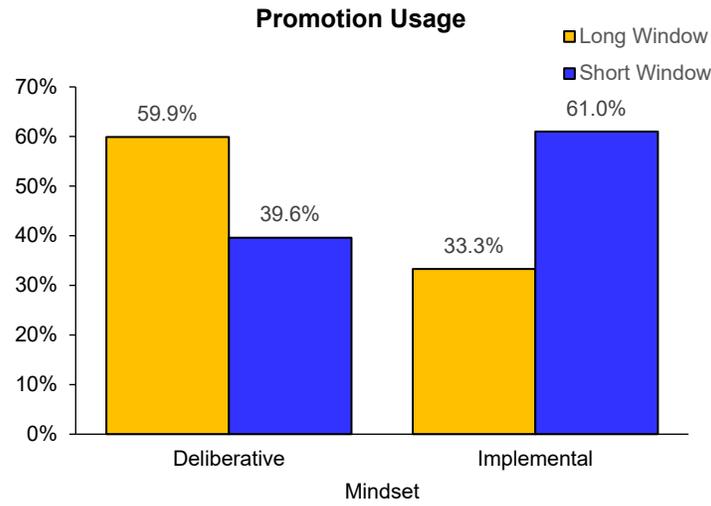
After completing the mindset manipulations, participants were presented with either a short (i.e., 1-day only) or long (i.e., 14-day only) redemption window promotion of a 15% discount on any Home Depot product. Then, participants indicated whether they wanted to take advantage of the offered promotion (0 = no, 1 = yes) and how attractive the promotional offer was (0 = not attractive at all, 10 = very attractive). After that, participants completed a questionnaire that measured the length of the redemption window (i.e., “The time window of the 1-day promotional offer was...”) on an 11-point scale (0 = short, 10 = long) and answered demographic questions at the end (i.e., gender, age, ethnicity, and language).

Results

Manipulation Checks. The analysis of the mindset manipulation check confirmed that there was a significant difference between deliberative ($M = 5.75$, $SD = 2.56$) and implemental mindsets ($M = 6.62$, $SD = 2.42$; $F(1, 231) = 6.94$, $p < .001$). The main effect of redemption window ($p = .560$) and the redemption window x mindset interaction effect ($p = .675$) were both

not significant. Also, participants rated a promotional offer with a 14-day window as longer ($M = 6.70$, $SD = 2.72$) than those with a 1-day window ($M = 3.28$, $SD = 2.81$; $F(1, 231) = 88.63$, $p < .001$). The main effect of mindset ($p = .744$) and the mindset x redemption window interaction effect ($p = .897$) were both not significant. Thus, both the mindset and the redemption window manipulations were successful.

Promotion Usage. We hypothesized that under a deliberative mindset, promotional offers with a longer redemption window would be more effective than those with a shorter redemption window. However, under an implemental mindset, promotional offers with a shorter redemption window would be more effective than those with a longer redemption window. A binary logistic regression revealed a significant interactive effect between redemption window and mindset on promotion usage ($\beta = -.49$; Wald $\chi^2(1) = 13.14$, $p < .001$; see Figure 2). Participants in a deliberative mindset were more likely to use the promotional offer when it had a 14-day redemption window (59.9%) than when it had a 1-day redemption window (39.6%; $\beta = -.41$; Wald $\chi^2(1) = 4.60$, $p = .032$). By contrast, participants in an implemental mindset were more likely to use the promotional offer when it had a 1-day redemption window (61.0%) than when it had a 14-day redemption window (33.3%; $\beta = .57$; Wald $\chi^2(1) = 8.90$, $p = .003$), indicating that consumers' response to a long versus a short promotional offer is dependent on whether they are in a more deliberative or a more implemental mindset.

Figure 2: Results of Experiment 1A

Promotion Attractiveness. We found a significant interactive effect between redemption window and mindset on promotion attractiveness ($F(1, 228) = 19.12, p = .001$). Participants in a deliberative mindset rated promotional offers with a 14-day redemption window as more attractive ($M = 6.18, SD = 3.16$) than those with a 1-day redemption window ($M = 4.25, SD = 3.73; F(1, 231) = 8.93, p = .003$). By contrast, when participants were in an implemental mindset, offers with a 1-day window ($M = 5.85, SD = 3.45$) tended to be more attractive than those with a 14-day window ($M = 3.93, SD = 3.06; F(1, 231) = 10.24, p = .002$).

Decision Time. We tracked each participant's decision time for willingness to take advantage of the offered promotion and found that participants who were in a deliberative mindset ($M = 20.70, SD = 5.11$) spent more time deciding than those in an implemental mindset ($M = 11.63, SD = 8.69; F(1, 231) = 4.14, p = .001$).

Discussion

The results of Experiment 1A provide initial support for our theorizing that promotional offers with a longer redemption window are more effective than those with a shorter one when

consumers are in a deliberative mindset. By contrast, promotional offers with a shorter redemption window are more effective than those with a longer one when consumers are in an implemental mindset.

EXPERIMENT 1B

The objective of Experiment 1B was to replicate the previous findings with a different promotional context (i.e., Best Buy). We expect that when consumers are in a deliberative mindset, promotional offers with a longer redemption window tend to be more effective than those with a shorter one. On the other hand, when consumers are in an implemental mindset, promotional offers with a shorter redemption window tend to be more effective than those with a longer one.

Method

Participants and Design. We recruited 240 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Seventeen participants were excluded from the data analysis because they did not pass the attention check question (i.e., “Please select all products that do not include chocolate”). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 223 individuals (mean age = 36.7 years; 56.3% female). Participants were randomly assigned to a 2 (redemption window: short versus long) x 2 (mindset: deliberative versus implemental) between-subjects design.

Procedure. The manipulation of deliberative versus implemental mindsets was the same as in Experiment 1A. After completing the mindset manipulations, participants were presented with either a short (i.e., 1-day only) or long (i.e., 14-day only) redemption window promotion of

a 15% discount on any Best Buy product. Then, participants indicated whether they wanted to take advantage of the offered promotion (0 = no, 1 = yes) and how attractive the promotional offer was (0 = not attractive at all, 10 = very attractive). After that, participants completed a questionnaire that measured the length of the redemption window (i.e., “The time window of the 1-day promotional offer was...”) on an 11-point scale (0 = short, 10 = long) and answered demographic questions at the end (i.e., gender, age, ethnicity, and language).

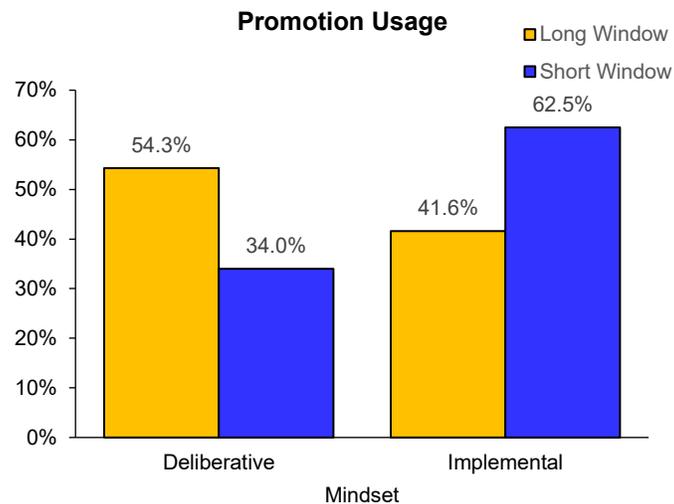
Results

Manipulation Checks. The analysis of the mindset manipulation check confirmed that there was a significant difference between deliberative ($M = 5.71, SD = 2.57$) and implemental mindsets ($M = 6.61, SD = 2.45; F(1, 222) = 7.17, p = .008$). The main effect of redemption window ($p = .538$) and the redemption window x mindset interaction effect ($p = .701$) were both not significant. Also, participants rated a promotional offer with a 14-day window as longer ($M = 5.52, SD = 3.01$) than those with a 1-day window ($M = 3.15, SD = 2.49; F(1, 222) = 40.32, p < .001$). The main effect of mindset ($p = .102$) and the mindset x redemption window interaction effect ($p = .902$) were both not significant. Thus, both the mindset and the redemption window manipulations were successful.

Promotion Usage. Per our hypothesis, a binary logistic regression revealed a significant interactive effect between redemption window and mindset on promotion usage ($\beta = -.42; \text{Wald } \chi^2(1) = 9.37, p = .002$; see Figure 3). Participants in a deliberative mindset were more likely to use the promotional offer when it had a 14-day redemption window (54.3%) than when it had a 1-day redemption window (34.0%; $\beta = -.42; \text{Wald } \chi^2(1) = 4.40, p = .036$). By contrast, participants in an implemental mindset were more likely to use the promotional offer when it had a 1-day redemption window (62.5%) than when it had a 14-day redemption window (41.6%; β

= .42; Wald $\chi^2(1) = 4.95, p = .026$). These results indicate that consumers in a deliberative mindset are more likely to take advantage of longer redemption window promotions than shorter ones. The opposite is true when consumers are in an implemental mindset.

Figure 3: Results of Experiment 1B



Promotion Attractiveness. We found a significant interactive effect between redemption window and mindset on promotion attractiveness ($F(1, 219) = 31.70, p = .001$). Participants in a deliberative mindset rated promotional offers with a 14-day redemption window as more attractive ($M = 5.35, SD = 3.49$) than those with a 1-day redemption window ($M = 2.96, SD = 2.94; F(1, 222) = 10.56, p < .001$). By contrast, participants in an implemental mindset rated promotional offers with a 1-day redemption window as more attractive ($M = 5.12, SD = 3.18$) than those with a 14-day redemption window ($M = 2.95, SD = 2.37; F(1, 222) = 17.57, p < .001$).

Discussion

In sum, the findings of Experiment 1B support H1 and provide direct evidence showing how consumers' uptake of promotional offers is driven by the interplay between the duration of redemption windows and the shoppers' mindsets. We demonstrate that under a deliberative

mindset, promotional offers with a longer redemption window tend to be more effective than those with a shorter redemption window. By contrast, under an implemental mindset, promotional offers with a shorter redemption window tend to be more effective than those with a longer redemption window. Although the results of Experiment 1B examine how deliberative versus implemental mindsets interact with the duration of redemption windows to influence the uptake of promotional offers, we have not directly examined the underlying mechanism. The next experiment addresses this issue.

EXPERIMENT 2

The objective of Experiment 2 was to replicate the results of Experiments 1A and 1B. Further, we ran a moderated mediation analysis, which shows that the greater flexibility of a longer redemption window and the greater urgency of a shorter redemption window accounts for the relationship between the redemption window and shoppers' mindset on promotion usage. We expect that when consumers are in a deliberative mindset, an offer with a longer window that provides greater flexibility tends to be more effective than one with a shorter window. On the other hand, when consumers are in an implemental mindset, an offer with a shorter window that induces perceived urgency tends to be more effective than one with a longer window.

Method

Participants and Design. We recruited 613 U.S. participants through Prolific, and they completed the experiment for nominal monetary compensation. Thirteen participants were excluded from the data analysis because they did not pass the attention check question (i.e., "Please select all products that do not include chocolate"). If participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 600 individuals (mean age = 35.4

years; 47.8% female). Participants were randomly assigned to a 2 (redemption window: short versus long) x 2 (mindset: deliberative versus implemental) between-subjects design.

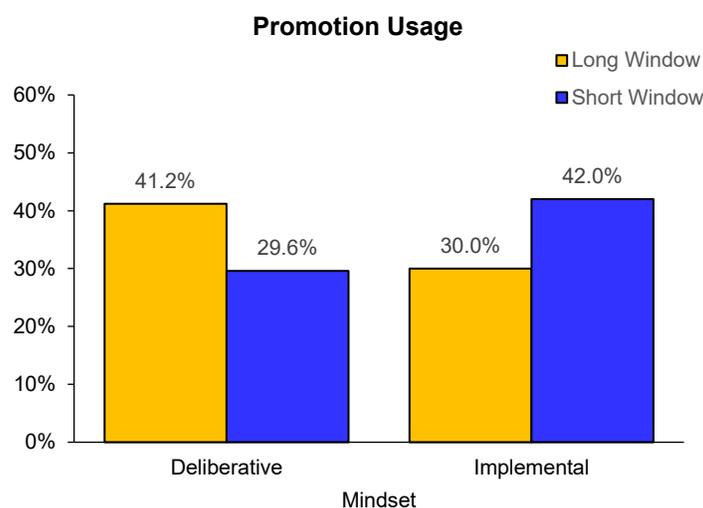
Procedure. The manipulation of deliberative versus implemental mindsets was the same as in Experiments 1A and 1B. After completing the mindset manipulations, participants were presented with either a short (i.e., 1-day only) or long (i.e., 3-week only) redemption window promotion of a 20% discount on any Apple product. Then, participants indicated whether they wanted to take advantage of the offered promotion (i.e., 0 = no, 1 = yes). After that, participants completed a questionnaire that measured the length of the redemption window (i.e., “The time window of the 1-day promotional offer was...”) on an 11-point scale (0 = short, 10 = long). Finally, we measured participants’ perceived urgency (i.e., “How much urgency did you feel when considering the promotional offer?”) and flexibility (i.e., “How much flexibility did you feel when considering the promotional offer?”) on an 11-point scale (0 = not at all, 10 = very much) for a moderated mediation analysis.

Results

Manipulation Checks. The analysis of the mindset manipulation check confirmed that there was a significant difference between deliberative ($M = 5.23$, $SD = 2.83$) and implemental mindsets ($M = 6.14$, $SD = 3.17$; $F(1, 599) = 13.67$, $p < .001$). The main effect of redemption window ($p = .351$) and the redemption window x mindset interaction effect ($p = .475$) were both not significant. Also, participants rated a promotional offer with a 3-week window as longer ($M = 6.79$, $SD = 2.70$) than those with a 1-day window ($M = 1.53$, $SD = 1.94$); $F(1, 599) = 749.01$, $p < .001$). The main effect of mindset ($p = .132$) and the mindset x redemption window interaction effect ($p = .252$) were both not significant. Thus, both the mindset and the redemption window manipulations were successful.

Promotion Usage. Per our hypothesis, a binary logistic regression revealed a significant interactive effect between redemption window and mindset on promotion usage ($\beta = -.25$; Wald $\chi^2(1) = 9.04, p = .003$; see Figure 4). Participants in a deliberative mindset were more likely to use the promotional offer when it had a 3-week redemption window (41.2%) than when it had a 1-day redemption window (29.6%; $\beta = -.25$; Wald $\chi^2(1) = 4.39, p = .036$). By contrast, participants in an implemental mindset were more likely to use the promotional offer when it had a 1-day redemption window (42.0%) than when it had a 3-week redemption window (30.0%; $\beta = .26$; Wald $\chi^2(1) = 4.65, p = .031$). These results support our hypothesis that consumers' response to a long versus short promotional offer is dependent on whether they are in a more deliberative or a more implemental mindset.

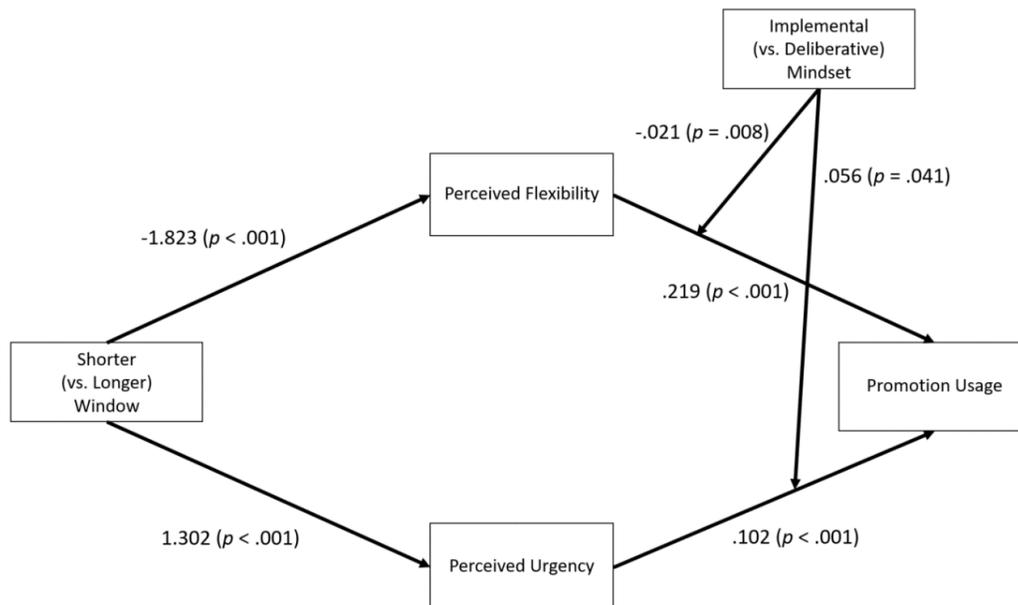
Figure 4. Results of Experiment 2



Moderated Mediation Analysis. Separate bias-corrected bootstrap models ($n=5000$) were estimated using PROCESS Model 14 (Hayes 2017). We tested our prediction that when consumers are in a deliberative mindset, an offer with a longer window that provides greater flexibility tends to be more effective than one with a shorter window. On the other hand, when

consumers are in an implemental mindset, an offer with a shorter window that induces perceived urgency tends to be more effective than one with a longer window. The full model is depicted in Figure 5. As hypothesized, a shorter redemption window increases consumers' perceived urgency ($b = -1.82, SE = .13, p < .001$) and, consequently, it induces the tendency of promotion usage ($b = .21, SE = .03, p < .001$). By contrast, a longer redemption window increases perceived flexibility ($b = 1.30, SE = .11, p < .001$) and, consequently, it induces the tendency of promotion usage ($b = .10, SE = .03, p < .001$). We further found that the indirect effect of a short redemption window through urgency on promotion usage was significantly moderated when participants were with an implemental mindset ($b = -.02, SE = .03, CI = [.01, .11]$). By contrast, the indirect effect of a longer redemption window through flexibility on promotion usage was significantly moderated when participants were with a deliberative mindset ($b = .05, SE = .03, CI = [.02, .14]$).

Figure 5. Moderated Mediation Analysis



Discussion

In Experiment 2, we replicate the results of Experiments 1A and 1B and test our hypotheses (H1 and H2) using a moderated mediation analysis. We demonstrate that perceived urgency versus flexibility accounts for the relationship between the redemption window and shoppers' mindset (deliberative versus implemental) on promotion usage. Specifically, we show that when consumers are in a deliberative mindset, an offer with a longer window that provides greater flexibility tends to be more effective than one with a shorter window. On the other hand, when consumers are in an implemental mindset, an offer with a shorter window that induces perceived urgency tends to be more effective than one with a longer window. However, a question is left unanswered. One may wonder whether the effect still holds for hedonic versus utilitarian consumption. Next, we further examine how the duration of price promotions interacts with shoppers' mindset for hedonic versus utilitarian consumption.

EXPERIMENT 3

The objective of Experiment 3 was to further examine how promotional offers for hedonic and utilitarian consumption differentially appeal to shoppers in deliberative versus implemental mindsets. Specifically, we examined an important boundary condition in that the interaction between mindset and redemption window on promotion usage holds only for hedonic, but not for utilitarian purchases.

Method

Participants, Design, and Pretest. We recruited 600 U.S. participants through Amazon Mechanical Turk, and they completed the experiment for nominal monetary compensation. Eighteen participants were excluded from the data analysis because they did not pass the attention check question (i.e., "Please select all products that do not include chocolate"). If

participants did not correctly choose five products that do not include chocolate at a time, they were excluded from the experiment. The results were based on a usable sample of 582 individuals (mean age = 38.2 years; 46.1% female). Participants were randomly assigned to a 2 (mindset: deliberative versus implemental) x 2 (redemption window: short versus long) x 2 (consumption type: hedonic versus utilitarian) between-subjects design.

Procedure and Pretest. The manipulation of deliberative versus implemental mindsets was the same as in the previous experiments. Next, in the hedonic condition, participants were presented with a promotional offer for any Disney Store product. By contrast, in the utilitarian condition, participants were presented with a promotional offer for any HP Ink & Cartridge Store product. We pretested which brand (Disney Store versus HP Ink & Cartridge Store) was perceived as utilitarian (Voss et al. 2012) and found that participants rated an HP Ink & Cartridge Store ($M = 8.47$, $SD = 2.70$) as more utilitarian than a Disney Store ($M = 4.87$, $SD = 3.16$; $F(1, 581) = 217.79$, $p < .001$).

The promotional offers had either a short (1-day) or a long (14-day) redemption window and the discount rate for all promotions was 10%. Then, participants indicated whether they wanted to take advantage of the offered promotion (0 = no, 1 = yes). After that, participants completed a questionnaire that measured the length of the redemption window (i.e., “The time window of 1-day promotional offer was...”) on an 11-point scale (0 = short, 10 = long).

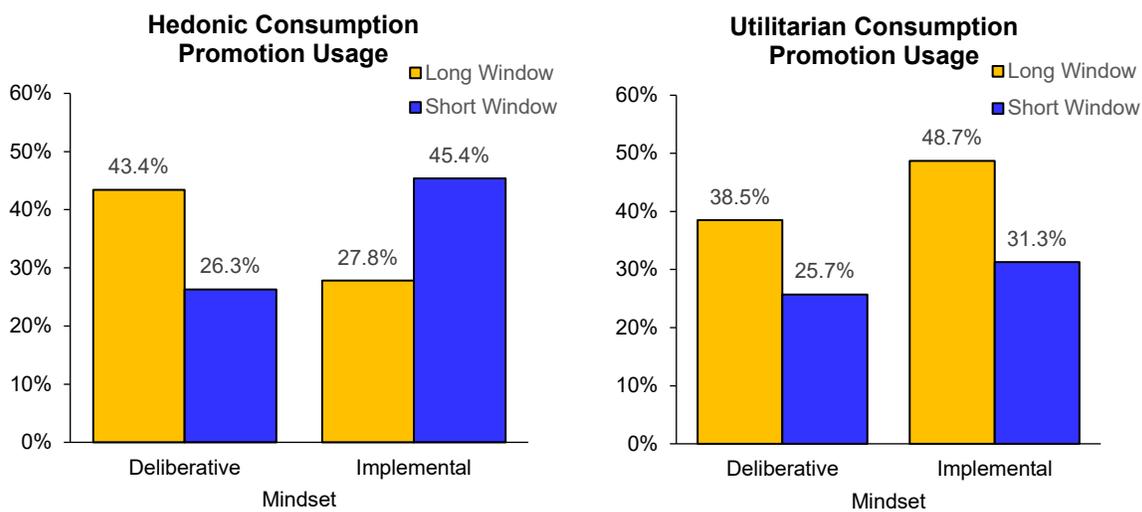
Results

Manipulation Checks. The analysis of the mindset manipulation check confirmed that there was a significant difference between deliberative ($M = 5.79$, $SD = 2.51$) and implemental mindsets ($M = 7.38$, $SD = 2.29$; $F(1, 581) = 63.82$, $p < .001$). The main effect of redemption window ($p = .116$) and the redemption window x mindset interaction effect ($p = .513$) were both

not significant. Also, participants rated a promotional offer with a 14-day window as longer ($M = 7.73$, $SD = 2.68$) than those with a 1-day window ($M = 3.93$, $SD = 3.52$); $F(1, 581) = 214.75$, $p < .001$). The main effect of mindset ($p = .586$) and the mindset x redemption window interaction effect ($p = .434$) were both not significant. Thus, both the mindset and the redemption window manipulations were successful.

Promotion Usage. Per our hypothesis, the interactive effect of redemption window and mindset on consumer response to the offered promotion was particularly pronounced in connection with hedonic consumption and attenuated in connection with utilitarian consumption ($\beta = -.21$; Wald $\chi^2(1) = 6.09$, $p = .014$; see Figure 6). First, a binary logistic regression revealed a significant interactive effect between redemption window and mindset on promotion usage in the hedonic consumption condition ($\beta = -.38$; Wald $\chi^2(1) = 9.56$, $p = .002$). Participants in a deliberative mindset were more likely to use the Disney Store promotional offer when it had a 14-day redemption window (43.4%) than when it had a 1-day redemption window (26.3%; $\beta = -.38$; Wald $\chi^2(1) = 4.46$, $p = .035$). By contrast, participants in an implemental mindset were more likely to use the Disney Store promotional offer when it had a 1-day redemption window (45.4%) than when it had a 14-day redemption window (27.8%; $\beta = .38$; Wald $\chi^2(1) = 5.13$, $p = .023$). However, when participants considered purchasing a product at HP Ink & Cartridge Store, there was no significant interaction effect between redemption window and mindset on promotion usage (1-day = 25.7% versus 14-day = 38.5% in a deliberative mindset; 1-day = 31.3% versus 14-day = 48.7% in an implemental mindset; $\beta = .03$; Wald $\chi^2(1) = .07$, $p = .786$). We further demonstrated that there was a significant main effect on the redemption window in the utilitarian consumption condition ($\beta = 1.93$; Wald $\chi^2(1) = 3.99$, $p = .035$).

Figure 6. Results of Experiment 3



Discussion

In sum, the findings of Experiment 3 support H3. We provide evidence that the interactive effect of redemption window and mindset on consumer response to the offered promotion holds in hedonic consumption. When consumers consider purchasing utilitarian products, however, they prefer longer redemption windows to shorter ones, regardless of mindset. The results of Experiment 3 show how different consumption types (hedonic versus utilitarian) moderate the interactive effect of redemption window and mindset on consumer response. Yet, we have not provided illuminating accounts of real-life problems and consequential consumer processes and behaviors. In the next experiment, we look at the behavioral consequences of the interaction effect between redemption window and mindset on actual promotion usage.

EXPERIMENT 4

Having demonstrated the interactive effect between redemption windows and consumers' mindsets on promotion usage thus far, Experiment 4 turned to matters relevant to applying the

effect to the real world. Specifically, we directly examined how participants in deliberative versus implemental mindsets tend to make or defer their purchase decisions when they initially encounter a promotional offer with a shorter versus a longer redemption window. To that end, we tested how consumers' deferred decisions resulted in their consequential purchase behaviors. This experiment provided direct evidence for how deliberative versus implemental mindsets promote consumers' action readiness, which, in turn, interacts with the shopping context to drive purchase decisions. Further, we took a different approach to activating deliberative versus implemental mindsets. This experiment aimed to demonstrate how consumers' action readiness prior to becoming aware of the offer activates a deliberative versus an implemental mindset and consequently affects the uptake of promotional offers. We predict that under a deliberative mindset, consumers are more likely to use promotional offers with a longer redemption window than those with a shorter one, whereas the opposite is true under an implemental mindset.

Method

Participants and Design. A total of 480 undergraduate students (mean age = 19.8; 54.1% female) at a major North-American university participated in the experiment for course credit. Participants were randomly assigned to a 2 (redemption window: short versus long) x 2 (mindset: deliberative versus implemental) between-subjects design.

Procedure. First, deliberative versus implemental mindsets were manipulated in this experiment. All participants were informed that they were invited to participate in a research bundle containing several unrelated experiments. In the first experiment, they were asked to answer a series of four trivia questions that had been randomly selected for them from a large pool of questions. They were told that if they answered at least two of these four questions correctly, they received one dollar in cash on the spot. The questions were multiple-choice, and

participants used their best guess to answer the four following questions: “Which of the following US states has the largest number of females who own a Harley Davison?”; “How many fish are there in Lake Superior?”; “How many stop signs are there in Las Vegas?”; and “How many coffee shops are there in Canada?”. After participants answered the four questions, they raised their hand to receive one dollar from the study administrator, regardless of their answers. Then, participants were informed that they had an opportunity to buy one of four different sodas for one dollar. After examining the pictures of the four sodas on the first screen, in the implemental mindset condition, participants answered which soda they liked the best. By contrast, in the deliberative mindset condition, participants were shown five colors and instructed to select the color of the soda that they did not see on the previous screen. Next, participants were presented with a short or a long redemption window “Buy One, Get One Free” promotion: within 30 seconds versus until the end of today’s research bundle. Participants subsequently had to decide whether they would like to purchase one of the sodas with the promotion, make a decision later, or keep the one dollar instead (purchase at Time 1; see Figure 7). If a participant decided to make a decision later, at the end of the research bundle, they had one more opportunity to make a choice between purchasing a soda and keeping the one dollar instead (purchase at Time 2; see Figure 8). Then, participants answered some demographic questions.

Figure 7. Experiment Stimuli – Purchase at Time 1

To take advantage of the 'Buy One, Get One Free' promotion for your purchase, click on the **can** that you would like to purchase.

<p>Club Soda Price: \$1.00</p> 	<p>Ginger Ale Price: \$1.00</p> 	<p>Cranberry Price: \$1.00</p> 	<p>Tonic Water Price: \$1.00</p> 
<p>I am not ready to make a decision. Ask me again at the end of the session.</p>		<p>I do not want to buy any of these sodas. I want to keep the \$1.00 instead.</p>	

Figure 8. Experiment Stimuli – Purchase at Time 2

Earlier in this study session, you indicated "I am **not** ready to make a decision. Ask me again at the end of the session."

If you want to purchase a Canada Dry Soda now, click on the **can** that you would like to purchase.

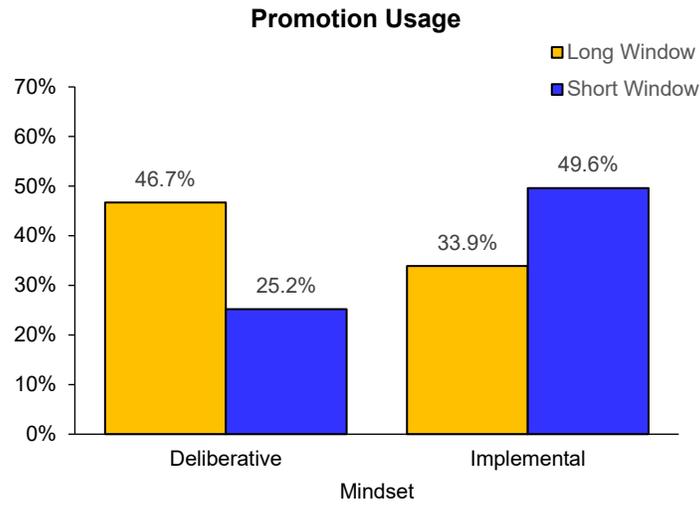
<p>Club Soda Price: \$1.00</p> 	<p>Ginger Ale Price: \$1.00</p> 	<p>Cranberry Price: \$1.00</p> 	<p>Tonic Water Price: \$1.00</p> 
<p>I do not want to buy any of these sodas. I want to keep the \$1.00 instead.</p>			

Results

Manipulation Checks. The analysis of the mindset manipulation check confirmed that there was a significant difference between deliberative ($M = 5.56$, $SD = 2.58$) and implemental

mindsets ($M = 7.01$, $SD = 1.85$; $F(1, 479) = 42.73$, $p < .001$). The main effect of redemption window ($p = .282$) and the redemption window x mindset interaction effect ($p = .674$) were both not significant. Also, participants rated a promotional offer with a “Until the End of Today’s Research Bundle” window as longer ($M = 5.54$, $SD = 3.80$) than those with a “Within 30 Seconds” window ($M = 7.89$, $SD = 2.75$; $F(1, 479) = 60.25$, $p < .001$). The main effect of mindset ($p = .559$) and the mindset x redemption window interaction effect ($p = .249$) were both not significant. Thus, both the mindset and the redemption window manipulations were successful.

Purchase in General. Per our hypothesis, a binary logistic regression revealed a significant interactive effect between redemption window and mindset on purchase ($\beta = -.40$; Wald $\chi^2(1) = 17.41$, $p < .001$; see Figure 9). Participants in a deliberative mindset were more likely to make a purchase with a longer redemption window promotion (46.7%) than a shorter redemption window promotion (25.2%; $\beta = -.47$; Wald $\chi^2(1) = 11.79$, $p = .001$). By contrast, participants in an implemental mindset were more likely to make a purchase with a shorter redemption window promotion (49.6%) than a longer redemption window promotion (33.9%; $\beta = .32$; Wald $\chi^2(1) = 5.98$, $p = .014$). These results indicate that in general, consumers in a deliberative mindset are more likely to take advantage of longer window promotions than shorter ones. By contrast, consumers in an implemental mindset are more likely to take advantage of shorter window promotions than longer ones.

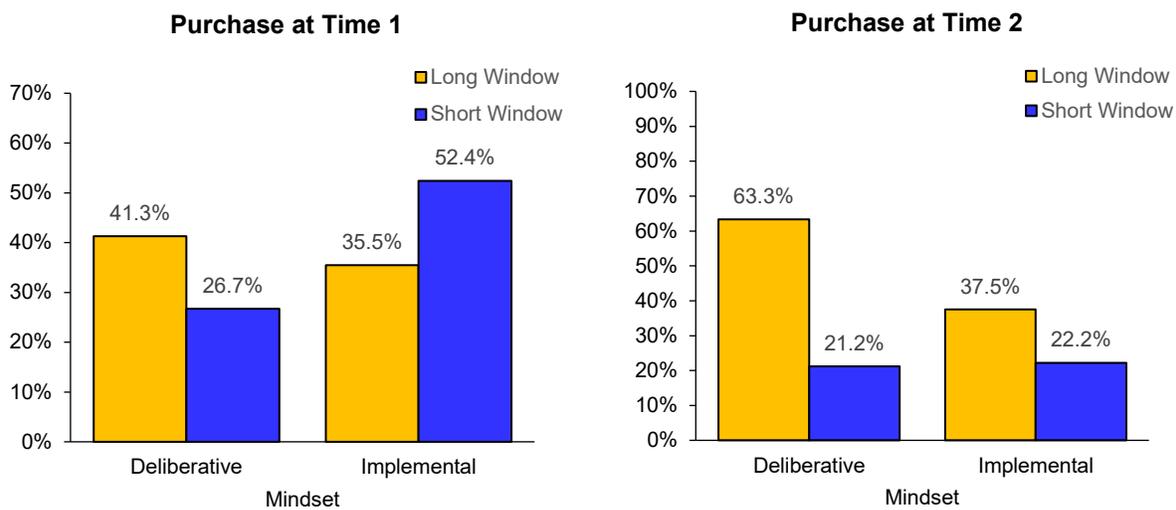
Figure 9. Results of Experiment 4 – Purchase in General

Purchase at Time 1. A total of 391 participants (178 participants in a deliberative mindset; 213 participants in an implemental mindset) decided to make an immediate purchase at Time 1, and we further examined how those participants responded more favorably to offers with a short versus a longer redemption window when they were with a deliberative versus an implemental mindset. A binary logistic regression revealed a significant interactive effect between redemption window and mindset on purchase at Time 1 ($\beta = -.33$; Wald $\chi^2(1) = 10.00$, $p = .002$; see the left panel of Figure 10). Participants in a deliberative mindset were more likely to make an immediate purchase with a longer redemption window promotion (41.3%) than a shorter redemption window promotion (26.7%; $\beta = -.32$; Wald $\chi^2(1) = 4.13$, $p = .042$). By contrast, participants in an implemental mindset were more likely to make an immediate purchase with a shorter redemption window promotion (52.4%) than a longer redemption window promotion (35.5%; $\beta = .34$; Wald $\chi^2(1) = 6.16$, $p = .013$). We also found that the main effect of mindset was significant ($\beta = -.21$; Wald $\chi^2(1) = 4.01$, $p = .045$), indicating that

participants in an implemental mindset were more likely to make an immediate purchase compared to participants in a deliberative mindset.

Purchase at Time 2. A shorter window “Buy One Get One Free” promotion had expired at Time 2 (i.e., one soda for \$1.00), whereas a longer window one was still alive, and participants received a discount until the end of the session (i.e., two sodas for \$1.00). In this analysis, we examined how participants who postponed their decisions purchased at a later purchase opportunity. A total of 89 participants (63 participants in a deliberative mindset; 26 participants in an implemental mindset) deferred their decisions at Time 1 and chose between purchasing a soda and keeping the one dollar instead at Time 2. A binary logistic regression revealed that the interactive effect between redemption window and mindset on purchase was not significant (1-day = 21.2% versus 14-day = 63.3% in a deliberative mindset; 1-day = 22.2% versus 14-day = 37.5% in an implemental mindset; $\beta = -.22$; Wald $\chi^2(1) = .74$, $p = .390$; see the right panel of Figure 10). However, the main effect of the redemption window was significant ($\beta = -.70$; Wald $\chi^2(1) = 7.18$, $p = .007$). These results showed that if participants deferred their purchase decisions with shorter window promotions, they were less likely to purchase at a later purchase opportunity, regardless of mindset. By contrast, if participants deferred their purchase decisions with longer window promotions, participants in a deliberative mindset were more likely to purchase at a later purchase opportunity than those in an implemental mindset.

Figure 10. Results of Experiment 4 – Purchase at Time 1 and Time 2



Discussion

The findings of Experiment 4 provide strong evidence in a lab setting that under a deliberative mindset, promotional offers with a longer redemption window tend to be more effective than those with a shorter redemption window. However, under an implemental mindset, promotional offers with a shorter redemption window tend to be more effective than those with a longer redemption window. Furthermore, an analysis of deferred purchases supports our proposed deliberative versus implemental mindsets mechanism—that is, if participants postponed their purchase decisions with a shorter window promotion, they were less likely to purchase at a later purchase opportunity, regardless of mindset. By contrast, if participants postponed their purchase decisions with a longer window promotion, participants in a deliberative mindset were more likely to purchase at a later purchase opportunity than those in an implemental mindset.

GENERAL DISCUSSION

The present research examines how the duration of a promotional offer affects consumers' uptake of the offered promotion. From a consumers' point of view, a longer redemption window offers greater flexibility to consumers, as it provides them with more opportunities to take advantage of the offer. On the other hand, a promotional offer with a shorter redemption window induces perceived urgency, which might render consumers more likely to respond to such an offer. At the core of this paper is the idea that the interplay between the greater flexibility provided by a longer redemption window and the greater urgency induced by a shorter redemption window tends to drive consumers' responses to a promotional offer. Specifically, consumers' responses to the duration of redemption windows depend on the action readiness when they encounter the offer (i.e., whether they are in a more deliberative or a more implemental mindset).

Evidence from five experiments provides clear support for this theorizing. Experiments 1A and 1B show that when consumers are in a deliberative mindset, longer window promotions tend to be more effective than shorter ones. By contrast, when consumers are in an implemental mindset, shorter window promotions tend to be more effective than longer ones. Experiment 2 replicates the results of Experiments 1A and 1B and runs a moderated mediation analysis, which aims to examine the interplay between the greater flexibility of a longer redemption window and the greater urgency of a shorter redemption window tends to drive consumer response to a promotional offer. Results show that when consumers are in a deliberative mindset, an offer with a longer window that provides greater flexibility tends to be more effective than one with a shorter window. On the other hand, when consumers are in an implemental mindset, an offer with a shorter window that induces perceived urgency tends to be more effective than one with a

longer window. In Experiment 3, we further demonstrate the interactive effect of the redemption window and mindset on consumer response to the offered promotion holds in connection with hedonic consumption, but this effect is attenuated in connection with utilitarian consumption. We show that when consumers consider purchasing utilitarian products, they prefer longer redemption windows with fewer restrictions compared to shorter redemption windows, regardless of mindset. In Experiment 4, we take a different approach to activating deliberative versus implemental mindsets in a lab setting. We also examine how different redemption windows for promotional offers interact with consumers' deliberative versus implemental mindsets, and influence consumers' consequential purchase behaviors. Specifically, this experiment directly examines how participants in a deliberative or an implemental mindset tend to make or defer their purchase decisions when they initially encounter the offer with a shorter versus longer redemption window. We further test how deferred purchase decisions result in their consequential purchase behaviors and show that if participants defer their purchase decisions with a shorter window promotion, they are less likely to purchase at a later purchase opportunity, regardless of mindset. By contrast, if participants defer their purchase decisions with a longer window promotion, participants in a deliberative mindset are more likely to purchase at a later purchase opportunity than those in an implemental mindset.

The present research advances the literature on mindsets, time-limited promotional offers, and consumers' promotion usages. First, this work contributes to the literature on novel ways of activating deliberative versus implemental mindsets. Prior work in this domain has focused on how goal-relevant aspects of a situation or environment promote deliberative or implemental mindsets (Taylor and Gollwitzer 1995; Brandstätter and Frank 2002; Keller and Gollwitzer 2017). This study also contributes to the extant literature on how the amount of thought

consumers have given to making a purchase prior to becoming aware of the offer activates a deliberative versus an implemental mindset.

Second, this research advances our understanding of the behavioral consequences of deliberative versus implemental mindsets. In particular, it examines how deliberative versus implemental mindsets promote consumers' action readiness, which interacts with different durations of price promotions to drive purchase decisions. Although prior work implies that deliberative versus implemental mindsets may signal to consumers their commitment to their shopping activity and influence how they construct their preferences (Xu and Wyer 2007; Lee and Ariely 2006), little is known about how consumers transition from the implemental mindset phase to the action phase. The present research examines how activated deliberative versus implemental mindsets interact with the duration of redemption windows to influence the uptake of promotional offers.

The current work opens up several avenues for further research. First, we did not explore how a consumer's mood during the evaluation of promotions influences their purchase behaviors. The role of consumer mood in the evaluation of promotions has received some attention in the literature (e.g., Heilman, Nakamoto, and Rao 2002). Prior work shows that consumers in a positive mood perceive a greater transaction value and are willing to purchase, as opposed to consumers in a negative mood when they encounter price promotions (Hsu and Liu 1998). Further work is needed to shed light on how a consumer's mood plays a critical role in their uptake of time-limited promotional offers. Second, this paper focuses on a setting in which a participant is presented with only a specific redemption window of promotions offers. Future research could further investigate how diverse durations (e.g., 1-week, 2-week, 1-month, etc.) of redemption windows interact with consumers' deliberative versus implemental mindsets to

influence the uptake of promotional offers. Last, this work focused mostly on conventional promotional offers. However, there are different types of promotional offers, such as cashback, loyalty program, referral, joint, and shopping-spree promotions. For instance, Kim (2019) has demonstrated that a promotion offer with no joining fee (versus a monthly membership fee) increases consumers' intentions to continue the service. Also, Vana et al. (2018) has found that cashback promotions can induce the probability that consumers will make an additional purchase and increase the size of the purchase. Correspondingly, further research needs to examine how these new types of promotional offers can interact with consumers' deliberative versus implemental mindsets to influence their willingness to take advantage of time-limited promotional offers.

This research has strong practical implications. First, we find the sets of circumstances under which firms can expect customers to be in a more deliberative versus a more implemental mindset. We also provide practical guidance regarding how deliberative versus implemental mindsets can be activated by thinking about making a purchase prior to becoming aware of the promotion in shopping environments. The current research sheds light on the conditions under which different redemption windows are likely to be effective in maximizing the uptake of promotional offers.

REFERENCES

- Allender, William J. and Timothy J. Richards (2012), “Brand Loyalty and Price Promotion Strategies: An Empirical Analysis,” *Journal of Retailing*, 88 (3), 323-342.
- Armor, David A. and Shelley E. Taylor (2003), “The Effects of Mindset on Behavior: Self-Regulation in Deliberative and Implemental Frames of Mind,” *Personality and Social Psychology Bulletin*, 29 (1), 86-95.
- Aydinli, Aylin, Marco Bertini, and Anja Lambrecht (2014), “Price promotion for Emotional Impact,” *Journal of Marketing*, 78 (4), 80-96.
- Babin, Barry J., William R. Darden, and Mitch Griffin (1994), “Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value,” *Journal of Consumer Research*, 20 (4), 644-656.
- Bonnici, Joseph, David P. Campbell, William B. Fredenberger, and Kathryn H. Hunnicutt (1996), “Consumer Issues in Coupon Usage: An Exploratory Analysis,” *Journal of Applied Business Research*, 13 (1), 31-40.
- Botti, Simona, Susan Broniarczyk, Gerald Häubl, Ron Hill, Yanliu Huang, Barbara Kahn, Praveen Kopalle, Donald Lehmann, Joe Urbany, and Brian Wansink (2008), “Choice Under Restrictions,” *Marketing Letters*, 19 (3), 183-199.
- Brandstätter, Veronika, Lukas Giesinger, Veronika Job, and Frank Elizabeth (2015), “The Role of Deliberative Versus Implemental Mindsets in Time Prediction and Task Accomplishment,” *Social Psychology*, 46 (2), 104–115.
- Brehm, Jack W. (1966), “A Theory of Psychological Reactance,” Academic Press.
- Chandon, Pierre, Brian Wansink, and Gilles Laurent (2000), “A Benefit Congruency Framework of Sales Promotion Effectiveness,” *Journal of Marketing*, 64 (4), 65-81.

- Cheema, Amar and Vanessa M. Patrick (2008), "Anytime Versus Only: Mind-sets Moderate the Effect of Expansive Versus Restrictive Frames on Promotion Evaluation," *Journal of Marketing Research*, 45 (4), 462-472.
- Childers, Terry L., Christopher L. Carr, Joann Peck, and Stephen Carson (2001), "Hedonic and Utilitarian Motivations for Online Retail Shopping Behavior," *Journal of Retailing*, 77 (4), 511-535.
- Cialdini, Robert B. (1987), "Compliance Principles of Compliance Professionals: Psychologists of Necessity," in *Social Influence*, Vol. 5, ed. Mark P. Zanna, James M. Olson, and C. Peter Herman, Hillsdale, NJ: Lawrence Erlbaum Associates, 165-184.
- (2009), *Influence: The Psychology of Persuasion*, New York: Harper Collins.
- Dhar, Ravi, Joel Huber, and Uzma Khan (2007), "The Shopping Momentum Effect," *Journal of Marketing Research*, 44 (3), 370-378.
- Felgate, Melanie, Andrew Fearne, Salvatore DiFalco, and Marian Garcia Martinez (2012), "Using Supermarket Loyalty Card Data to Analyse the Impact of Promotions," *International Journal of Market Research*, 54 (2), 221-240.
- Fitzsimons, Gavan J. (2000), "Consumer Response to Stockouts," *Journal of Consumer Research*, 27 (2), 249-266.
- Freimer, Marshall and Dan Horsky (2008), "Try it, You Will Like It—Does Consumer Learning Lead to Competitive Price Promotions?" *Marketing Science*, 27 (5), 796-810.
- Fromkin, Howard L. and Charles R. Snyder (1980), "The Search for Uniqueness and Valuation in Scarcity," in *Social Exchange: Advances in Theory and Research*, ed. Kenneth J.
- Gollwitzer, Peter M. (1990), "Action Phases and Mind-sets," *Handbook of Motivation and Cognition: Foundations of Social Behavior*, New York, NY: Guilford.

- Gollwitzer, Peter M. and Lucas Keller (2016), "Mindset Theory," *Encyclopedia of Personality and Individual Differences*, 1-8.
- Gollwitzer, Peter M. and Ronald F. Kinney (1989), "Effects of Deliberative and Implemental Mind-sets on Illusion of Control," *Journal of Personality and Social Psychology*, 56 (4), 531–542.
- Hamilton, Ryan, Kathleen D. Vohs, Anne-Laure Sellier, and Tom Meyvis (2011), "Being of Two Minds: Switching Mindsets Exhausts Self-Regulatory Resources," *Organizational Behavior and Human Decision Processes*, 115 (1), 13-24.
- Hayes, Andrew F. (2017), "Introduction to Mediation, Moderation, and Conditional Process analysis: A Regression-Based Approach," Guilford publications.
- Heilman, Carrie M., Kent Nakamoto, and Ambar G. Rao (2002), "Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons," *Journal of Marketing Research*, 39 (2), 242-252.
- Holbrook, Morris B. and Elizabeth C. Hirschman (1982), "Hedonic Consumption: Emerging Concepts, Methods and Propositions," *Journal of Marketing*, 46 (3), 92-101.
- Hsu, Chung-kue and Ben Shaw-Ching Liu (1998), "The Role of Mood in Price Promotions," *Journal of Product & Brand Management*, 7 (2), 150-160.
- Hübner, Alexander, Heinrich Kuhn, and Sandro Kühn (2016), "An Efficient Algorithm for Capacitated Assortment Planning with Stochastic Demand and Substitution," *European Journal of Operational Research*, 250 (2), 505-520.
- Kahneman, Daniel and Jackie Snell (1992), "Predicting a Changing Taste: Do People Know What They Will Like?" *Journal of Behavioral Decision Making*, 5 (3), 187-200.

- Inman, Jeffrey J., Anil C. Peter, and Priya Raghurir (1997), "Framing the Deal: The Role of Restrictions in Accentuating Deal Value," *Journal of Consumer Research*, 24 (1), 68-79.
- Inman, Jeffrey J. and Leigh McAlister (1994), "Do Coupon Expiration Dates Affect Consumer Behavior?" *Journal of Marketing Research*, 31 (3), 423-29.
- Johnson, Joseph, Gerard J. Tellis, and Edward H. Ip (2013), "To Whom, When, and How Much to Discount? A Constrained Optimization of Customized Temporal Discounts," *Journal of Retailing*, 89 (4), 361-373.
- Keller, Lucas and Peter M. Gollwitzer (2017), "Mindsets Affect Risk Perception and Risk-Taking Behavior," *Social Psychology*, 48 (10), 135-147.
- Kim, Jungkeun (2019), "The Impact of Different Price Promotions on Customer Retention," *Journal of Retailing and Consumer Services*, 46 (3), 95-102.
- Kogan, Konstantin and Avi Herbon (2008), "A Supply Chain under Limited-Time Promotion: The Effect of Customer Sensitivity," *European Journal of Operational Research*, 188 (1), 273-292.
- Krishna, Aradhna and John Zhang (1999), "Short-or Long-Duration Coupons: The Effect of the Expiration Date on the Profitability of Coupon Promotions," *Management Science*, 45 (8), 1041-1056.
- Levav, Jonathan and Rui Zhu (2009), "Seeking Freedom Through Variety," *Journal of Consumer Research*, 36 (4), 600-610.
- Martín-Herrán, Guiomar, Simon Pierre Sigué, and Georges Zaccour (2011), "Strategic Interactions in Traditional Franchise Systems: Are Franchisors Always Better off?" *European Journal of Operational Research*, 213 (3), 526-537.

- Matherly, Ted, Anastasiya P. Ghosh, and Yogesh V. Joshi (2019), “The Freedom of Constraint: How Perceptions of Time Limitations Alleviate Guilt from Two-Phase Indulgent Consumption,” *Journal of the Association for Consumer Research*, 4 (2), 147-159.
- Nenkov, Gergana Y. and Peter M. Gollwitzer (2012), “Pre-versus Post-decisional Deliberation and Goal Commitment: The Positive Effects of Defensiveness,” *Journal of Experimental Social Psychology*, 48 (1), 106-121.
- Parker, Jeffrey R. and Donald R. Lehmann (2011), “When Shelf- Based Scarcity Impacts Consumer Preferences,” *Journal of Retailing*, 87 (2), 142-55.
- Ratner, Rebecca K, Dilip Soman, Gal Zauberman, Dan Ariely, Ziv Carmon, Punam A. Keller, B. Kyu Kim, Fern Lin, Selin Malkoc, Deborah A. Small, and Klaus Wertenbroch (2008), “How Behavioral Decision Research Can Enhance Consumer Welfare: From Freedom of Choice to Paternalistic Intervention,” *Marketing Letters*, 19 (3), 383-97.
- Shen, Luxi, Christopher K. Hsee, Qingsheng Wu, and Claire I. Tsai (2012), “Overpredicting and Underprofiting in Pricing Decisions,” *Journal of Behavioral Decision Making*, 25 (5), 512–21.
- Simonson, Itamar (1990), “The Effect of Purchase Quantity and Timing on Variety-Seeking Behavior,” *Journal of Marketing research*, 27 (2), 150-162.
- Statista.com (2021), “Number of Adult Digital Coupon Users in the United States,” retrieved from <https://www.statista.com/statistics/273226/number-of-adult-digital-coupon-users-in-the-us>.
- Taylor, Shelley E. and Peter M. Gollwitzer (1995), “Effects of Mindset on Positive Illusions,” *Journal of Personality and Social Psychology*, 69 (2), 213-226.

- Tu, Yanping and Dilip Soman (2014), "The Categorization of Time and Its Impact on Task Initiation," *Journal of Consumer Research*, 41 (3), 810-822.
- Vaidyanathan, Rajiv, and Praveen Aggarwal (2002), "The Impact of Shopping Agents on Small Business E-Commerce Strategy," *Journal of Small Business Strategy*, 13 (1), 62-79.
- Vana, Prasad, Anja Lambrecht, and Marco Bertini (2018), "Cashback is Cash Forward: Delaying a Discount to Entice Future Spending," *Journal of Marketing Research*, 55 (6), 852-868.
- Voss, Kevin E., Eric R. Spangenberg, and Bianca Grohmann (2003), "Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude," *Journal of Marketing Research*, 40 (3), 310-320.
- Ward, Ronald W. and James E. Davis (1978), "A Pooled Cross-section Time Series Model of Coupon Promotions," *American Journal of Agricultural Economics*, 60 (3), 393-401.
- Zhang, Zelin, Minghui Ma, Peter TL Popkowski Leszczyc, and Hejun Zhuang (2020), "The Influence of Coupon Duration on Consumers' Redemption Behavior and Brand Profitability," *European Journal of Operational Research*, 281 (1), 114-128.
- Zhao, Min, Leonard Lee, and Dilip Soman (2012), "Crossing the Virtual Boundary: The Effect of Task-Irrelevant Environmental Cues on Task Implementation," *Psychological Science*, 23 (10), 1200-1207.
- Zhu, Meng and Rebecca K. Ratner (2015), "Scarcity Polarizes Preferences: The Impact on Choice among Multiple Items in a Product Class," *Journal of Marketing Research*, 52 (1), 13-26.

COMPREHENSIVE LIST OF REFERENCES

- Akrimi, Yosra (2016), "Usability, Interactivity, Website Personality and Consumers' Responses: A Case of Internet Service Provider," *International Journal of Electronic Marketing and Retailing*, 7 (3), 204-228.
- Allender, William J. and Timothy J. Richards (2012), "Brand Loyalty and Price Promotion Strategies: An Empirical Analysis," *Journal of Retailing*, 88 (3), 323-342.
- Arkes, Hal R. and Catherine Blumer (1995), "The Psychology of Sunk Cost," *Organizational Behavior and Human Decision Processes*, 35 (1), 124-140.
- Armor, David A. and Shelley E. Taylor (2003), "The Effects of Mindset on Behavior: Self-Regulation in Deliberative and Implemental Frames of Mind," *Personality and Social Psychology Bulletin*, 29 (1), 86-95.
- Ashforth, Blake E. and Fred Mael (1989), "Social Identity Theory and the Organization," *Academy of Management Review*, 14 (1), 20-39.
- Aydinli, Aylin, Marco Bertini, and Anja Lambrecht (2014), "Price Promotion for Emotional Impact," *Journal of Marketing*, 78 (4), 80-96.
- Babin, Barry J., William R. Darden, and Mitch Griffin (1994), "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value," *Journal of Consumer Research*, 20 (4), 644-656.
- Bayer, Ute C. and Peter M. Gollwitzer (2005), "Mindset Effects on Information Search in Self-Evaluation," *European Journal of Social Psychology*, 35 (3), 313-327.
- Belanger, France, Janine S. Hiller, and Wanda J. Smith (2002), "Trustworthiness in Electronic Commerce: The Role of Privacy, Security, and Site Attributes," *Journal of Strategic Information Systems*, 11 (3), 245-270.

Bettman, James R., Mary Frances Luce, and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25 (3), 187-217.

Bonnici, Joseph, David P. Campbell, William B. Fredenberger, and Kathryn H. Hunnicutt (1996), "Consumer Issues in Coupon Usage: An Exploratory Analysis," *Journal of Applied Business Research*, 13 (1), 31-40.

Botti, Simona, Susan Broniarczyk, Gerald Häubl, Ron Hill, Yanliu Huang, Barbara Kahn, Praveen Kopalle, Donald Lehmann, Joe Urbany, and Brian Wansink (2008), "Choice Under Restrictions," *Marketing Letters*, 19 (3), 183-199.

Brandstätter, Veronika and Elisabeth Frank (2002), "Effects of Deliberative and Implemental Mindsets on Persistence in Goal-Directed Behavior," *Personality and Social Psychology Bulletin*, 28 (10), 1366-1378.

Brandstätter, Veronika, Lukas Giesinger, Veronika Job, and Frank Elizabeth (2015), "The Role of Deliberative Versus Implemental Mindsets in Time Prediction and Task Accomplishment," *Social Psychology*, 46 (2), 104–115.

Brehm, Jack W. (1966), "A Theory of Psychological Reactance," Academic Press.

Büttner, Oliver B., Arnd Florack, and Anja S. Göritz (2013), "Shopping Orientation and Mindsets: How Motivation Influences Consumer Information Processing During Shopping," *Psychology & Marketing*, 30 (9), 779-793.

Campbell, Jennifer D., Paul D. Trapnell, Steven J. Heine, Ilana M. Katz, Loraine F. Lavalley, and Darrin R. Lehman (1996), "Self-Concept Clarity: Measurement, Personality Correlates, and Cultural Boundaries," *Journal of Personality and Social Psychology*, 70 (1), 141-156.

- Chandon, Pierre, Brian Wansink, and Gilles Laurent (2000), "A Benefit Congruency Framework of Sales Promotion Effectiveness," *Journal of Marketing*, 64 (4), 65-81.
- Cheema, Amar and Vanessa M. Patrick (2008), "Anytime Versus Only: Mind-sets Moderate the Effect of Expansive Versus Restrictive Frames on Promotion Evaluation," *Journal of Marketing Research*, 45 (4), 462-472.
- Chen, Serena and Shelly Chaiken (1999), "The Heuristic-Systematic Model in Its Broader Context," In Shelly, Chaiken and Yaacove Trope (Eds.), "Dual-Process Theories in Social Psychology," (pp. 73-96). New York, NY, US: Guilford Press.
- Childers, Terry L., Christopher L. Carr, Joann Peck, and Stephen Carson (2001), "Hedonic and Utilitarian Motivations for Online Retail Shopping Behavior," *Journal of Retailing*, 77 (4), 511-535.
- Cialdini, Robert B. (1987), "Compliance Principles of Compliance Professionals: Psychologists of Necessity," in *Social Influence*, Vol. 5, ed. Mark P. Zanna, James M. Olson, and C. Peter Herman, Hillsdale, NJ: Lawrence Erlbaum Associates, 165-184.
- (2009), *Influence: The Psychology of Persuasion*, New York: Harper Collins.
- Coleman, Nicole Verrochi and Patti Williams (2013), "Feeling Like Myself: Emotion Profiles and Social Identity," *Journal of Consumer Research*, 40 (2), 203-22.
- Coyle, James R. and Esther Thorson (2001), "The Effects of Progressive Levels of Interactivity and Vividness in Web Marketing Sites," *Journal of Advertising*, 30 (3), 65-77.
- Culnan, Mary J. (1993), "How Did They Get My Name?": An Exploratory Investigation of Consumer Attitudes Toward Secondary Information Use," *MIS Quarterly*, 17 (3), 341-363.

- Culnan, Mary J. (1995), "Consumer Awareness of Name Removal Procedures: Implications for Direct Marketing," *Journal of Direct Marketing*, 9 (2), 10-19.
- Cyr, Dianne, Milena Head, Hector Larios, and Bing Pan (2009), "Exploring Human Images in Website Design: A Multi-Method Approach," *MIS Quarterly*, 33 (3), 539-566.
- Cyr, Dianne, Milena Head, Eric Lim, and Agnis Stibe (2018), "Using the Elaboration Likelihood Model to Examine Online Persuasion Through Website Design," *Information & Management*, 55 (7), 807-821.
- Dahlén, Micael, Alexandra Rasch, and Sara Rosengren (2003), "Love at First Site? A Study of Website Advertising Effectiveness," *Journal of Advertising Research*, 43 (1), 25-33.
- Das, Samar, Raj Echambadi, Michael McCardle, and Michael Lockett (2003), "The Effect of Interpersonal Trust, Need for Cognition, and Social Loneliness on Shopping, Information Seeking and Surfing on the Web," *Marketing Letters*, 14 (3), 185-202.
- Davis, Fred D., Richard P. Bagozzi, and Paul R. Warshaw (1992), "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace," *Journal of Applied Social Psychology* 22 (14), 1111-1132.
- De Morree, Helma M. and Samuele M. Marcora (2010), "The Face of Effort: Frowning Muscle Activity Reflects Effort During a Physical Task," *Biological Psychology*, 85 (3), 377-382.
- Dhar, Ravi, Joel Huber, and Uzma Khan (2007), "The Shopping Momentum Effect," *Journal of Marketing Research*, 44 (3), 370-378.
- Dholakia, Utpal and Richard P. Bagozzi (2001), "Consumer Behavior in Digital Environments," *Digital Marketing*, 9 (1), 163-200.

- Eisenberger, Robert (1992), "Learned Industriousness," *Psychological Review*, 99 (2), 248-267.
- Feldman, Jack M. and John G. Lynch (1988), "Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior," *Journal of Applied Psychology*, 73 (3), 421-435.
- Felgate, Melanie, Andrew Fearne, Salvatore DiFalco, and Marian Garcia Martinez (2012), "Using Supermarket Loyalty Card Data to Analyse the Impact of Promotions," *International Journal of Market Research*, 54 (2), 221-240.
- Fitzsimons, Gavan J. (2000), "Consumer Response to Stockouts," *Journal of Consumer Research*, 27 (2), 249-266.
- Flavián, Carlos, Miguel Guinalíu, and Raquel Gurrea (2006), "The Role Played by Perceived Usability, Satisfaction and Consumer Trust on Website Loyalty," *Information & Management*, 43 (1), 1-14.
- Forehand, Mark R. and Rohit Deshpandé (2001), "What We See Makes Us Who We Are: Priming Ethnic Self-Awareness and Advertising Response," *Journal of Marketing Research*, 38 (3), 336-48.
- Freimer, Marshall and Dan Horsky (2008), "Try it, You Will Like It—Does Consumer Learning Lead to Competitive Price Promotions?" *Marketing Science*, 27 (5), 796-810.
- Fromkin, Howard L. and Charles R. Snyder (1980), "The Search for Uniqueness and Valuation in Scarcity," in *Social Exchange: Advances in Theory and Research*, ed. Kenneth J.
- Fujita, Kentaro, Peter M. Gollwitzer, and Gabriele Oettingen (2007), "Mindsets and Pre-Conscious Open-Mindedness to Incidental Information," *Journal of Experimental Social Psychology*, 43 (1), 48-61.

- Gefen, David and Detmar W. Straub (2004), "Consumer Trust in B2C E-Commerce and the Importance of Social Presence: Experiments in E-Products and E-Services," *Omega*, 32 (6), 407-424.
- Gefen, David, Elena Karahanna, and Detmar W. Straub (2003), "Trust and TAM in Online Shopping: An Integrated Model," *MIS Quarterly*, 27 (1), 51-90.
- Goldstein, Noah J., Robert B. Cialdini, and Vladas Griskevicius (2008), "A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels," *Journal of Consumer Research*, 35 (3), 472-482.
- Gollwitzer, Peter M. (1990), "Action Phases and Mind-sets," *Handbook of Motivation and Cognition: Foundations of Social Behavior*, New York, NY: Guilford.
- Gollwitzer, Peter M. and Lucas Keller (2016), "Mindset Theory," *Encyclopedia of Personality and Individual Differences*, 1-8.
- Gollwitzer, Peter M. and Ronald. F. Kinney (1989), "Effects of Deliberative and Implemental Mind-sets on Illusion of Control," *Journal of Personality and Social Psychology*, 56 (4), 531-542.
- Gollwitzer, Peter M. and Ute Bayer (1999), "Deliberative versus Implemental Mindsets in the Control of Action," *Dual-Process Theories in Social Psychology*, Vol. 19, 403-422, New York: Guilford.
- Gunness, Aneeshta and Harmen Oppewal (2020), "How Mindset and Store Familiarity Impact Online Stockout Responses," *International Journal of Retail & Distribution Management*, 48 (4), 326-347.

- Hamilton, Ryan, Kathleen D. Vohs, Anne-Laure Sellier, and Tom Meyvis (2011), "Being of Two Minds: Switching Mindsets Exhausts Self-Regulatory Resources," *Organizational Behavior and Human Decision Processes*, 115 (1), 13-24.
- Hausman, Angela V. and Jeffrey Sam Siekpe (2009), "The Effect of Web Interface Features on Consumer Online Purchase Intentions," *Journal of Business Research*, 62 (1), 5-13.
- Hayes, Andrew F. (2017), "Introduction to Mediation, Moderation, and Conditional Process analysis: A Regression-Based Approach," Guilford publications.
- Heilman, Carrie M., Kent Nakamoto, and Ambar G. Rao (2002), "Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons," *Journal of Marketing Research*, 39 (2), 242-252.
- Hoffman, Donna L., Thomas P. Novak, and Marcos Peralta (1999) "Building Consumer Trust Online," *Communications of the ACM*, 42 (4), 80-85.
- Holbrook, Morris B. and Elizabeth C. Hirschman (1982), "Hedonic Consumption: Emerging Concepts, Methods and Propositions," *Journal of Marketing*, 46 (3), 92-101.
- Hsu, Chung-kue and Ben Shaw-Ching Liu (1998), "The Role of Mood in Price Promotions," *Journal of Product & Brand Management*, 7 (2), 150-160.
- Hübner, Alexander, Heinrich Kuhn, and Sandro Kühn (2016), "An Efficient Algorithm for Capacitated Assortment Planning with Stochastic Demand and Substitution," *European Journal of Operational Research*, 250 (2), 505-520.
- Inman, Jeffrey J., Anil C. Peter, and Priya Raghuram (1997), "Framing the Deal: The Role of Restrictions in Accentuating Deal Value," *Journal of Consumer Research*, 24 (1), 68-79.
- Inman, Jeffrey J. and Leigh McAlister (1994), "Do Coupon Expiration Dates Affect Consumer Behavior?" *Journal of Marketing Research*, 31 (3), 423-29.

- Inzlicht, Michael, Amitai Shenhav, and Christopher Y. Olivola (2018), "The Effort Paradox: Effort is Both Costly and Valued," *Trends in Cognitive Sciences*, 22 (4), 337-349.
- Javadi, Moshref, Hossein Dolatabadi, Mojtaba Nourbakhsh, Amir Poursaeedi, and Ahmad Reza Asadollahi (2012), "An Analysis of Factors Affecting on Online Shopping Behavior of Consumers," *International Journal of Marketing Studies*, 4 (5), 81-98.
- Jiang, Ling Alice, Zhilin Yang, and Minjoon Jun (2013), "Measuring Consumer Perceptions of Online Shopping Convenience," *Journal of Service Management*, 24 (2), 191-214.
- Johnson, Joseph, Gerard J. Tellis, and Edward H. Ip (2013), "To Whom, When, and How Much to Discount? A Constrained Optimization of Customized Temporal Discounts," *Journal of Retailing*, 89 (4), 361-373.
- Kahneman, Daniel and Jackie Snell (1992), "Predicting a Changing Taste: Do People Know What They Will Like?" *Journal of Behavioral Decision Making*, 5 (3), 187-200.
- Keller, Lucas and Peter M. Gollwitzer (2017), "Mindsets Affect Risk Perception and Risk-Taking Behavior," *Social Psychology*, 48 (10), 135-147.
- Kettle, Keri L. and Gerald Häubl (2011), "The Signature Effect: Signing Influences Consumption-Related Behavior by Priming Self-Identity," *Journal of Consumer Research*, 38 (3), 474-489.
- Kim, Jungkeun (2019), "The Impact of Different Price Promotions on Customer Retention," *Journal of Retailing and Consumer Services*, 46 (3), 95-102.
- King, Ruth C., Richard AM Schilhavy, Charles Chowa, and Wynne W. Chin (2016), "Do Customers Identify with Our Website? The Effects of Website Identification on Repeat Purchase Intention," *International Journal of Electronic Commerce*, 20 (3), 319-354.

- Kogan, Konstantin and Avi Herbon (2008), "A Supply Chain under Limited-Time Promotion: The Effect of Customer Sensitivity," *European Journal of Operational Research*, 188 (1), 273-292.
- Krishna, Aradhna and John Zhang (1999), "Short-or Long-Duration Coupons: The Effect of the Expiration Date on the Profitability of Coupon Promotions," *Management Science*, 45 (8), 1041-1056.
- Labroo, Aparna A. and Sara Kim (2009), "The 'Instrumentality' Heuristic: Why Metacognitive Difficulty Is Desirable during Goal Pursuit," *Psychological Science*, 20 (1), 127-134.
- LeBoeuf, Robyn A., Eldar Shafir, and Julia Belyavsky Bayuk (2010), "The Conflicting Choices of Alternating Selves," *Organizational Behavior and Human Decision Processes*, 111 (1), 48-61.
- Lee, Leonard and Dan Ariely (2006), "Shopping Goals, Goal Concreteness, and Conditional Promotions," *Journal of Consumer Research*, 33 (1), 60-70.
- Lee, Jong-Eun Roselyn, Shailendra Rao, Clifford Nass, Karin Forssell, and Jae Min John (2012), "When Do Online Shoppers Appreciate Security Enhancement Efforts? Effects of Financial Risk and Security Level on Evaluations of Customer Identification," *International Journal of Human-Computer Studies*, 70 (5), 364-376.
- Lee, Zui Chih and Jennifer Yurchisin. (2011), "The Impact of Website Attractiveness, Consumer-Website Identification, and Website Trustworthiness on Purchase Intention," *International Journal of Electronic Customer Relationship Management*, 5 (3), 272-287.
- Levav, Jonathan and Rui Zhu (2009), "Seeking Freedom Through Variety," *Journal of Consumer Research*, 36 (4), 600-610.

- Liang, Ting-Peng and Hung-Jen Lai (2002), "Effect of Store Design on Consumer Purchases: An Empirical Study of Online Bookstores," *Information & Management*, 39 (6), 431-444.
- Liberman, Nira and Jens Förster (2006), "Inferences from Decision Difficulty," *Journal of Experimental Social Psychology*, 42 (3), 290-306.
- Liu, Yuping and Lawrence J. Shrum (2002), "What is Interactivity and is It Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness," *Journal of Advertising*, 31 (4), 53-64.
- Martín-Herrán, Guiomar, Simon Pierre Sigué, and Georges Zaccour (2011), "Strategic Interactions in Traditional Franchise Systems: Are Franchisors Always Better off?" *European Journal of Operational Research*, 213 (3), 526-537.
- Matherly, Ted, Anastasiya P. Ghosh, and Yogesh V. Joshi (2019), "The Freedom of Constraint: How Perceptions of Time Limitations Alleviate Guilt from Two-Phase Indulgent Consumption," *Journal of the Association for Consumer Research*, 4 (2), 147-159.
- McDowell, William C., Rachel C. Wilson, and Charles Owen Kile Jr (2016), "An Examination of Retail Website Design and Conversion Rate," *Journal of Business Research*, 69 (11), 4837-4842.
- McKnight, D. Harrison, Vivek Choudhury, and Charles Kacmar (2002), "The Impact of Initial Consumer Trust on Intentions to Transact with a Web Site: A Trust Building Model." *Journal of Strategic Information Systems*, 11 (3), 297-323.
- Miyazaki, Anthony D. and Ana Fernandez (2000), "Internet Privacy and Security: An Examination of Online Retailer Disclosures," *Journal of Public Policy & Marketing*, 19 (1), 54-61.

- Nenkov, Gergana Y. and Peter M. Gollwitzer (2012), "Pre-versus Post-decisional Deliberation and Goal Commitment: The Positive Effects of Defensiveness," *Journal of Experimental Social Psychology*, 48 (1), 106-121.
- O'Cass, Aron (2000), "An Assessment of Consumers Product, Purchase Decision, Advertising and Consumption Involvement in Fashion Clothing," *Journal of Economic Psychology*, 21 (5), 545-576.
- Oyserman, Daphna (2009), "Identity-Based Motivation and Consumer Behavior," *Journal of Consumer Psychology*, 19 (3), 276-279.
- Parker, Jeffrey R. and Donald R. Lehmann (2011), "When Shelf- Based Scarcity Impacts Consumer Preferences," *Journal of Retailing*, 87 (2), 142-55.
- Pennington, Robin, H. Dixon Wilcox, and Varun Grover (2003), "The Role of System Trust in Business-to-Consumer Transactions," *Journal of Management Information Systems*, 20 (3), 197-226.
- Ranganathan, Chandrasekaran, and Shobha Ganapathy (2002), "Key Dimensions of Business-to-Consumer Websites," *Information & Management*, 39 (6), 457-465.
- Ratner, Rebecca K, Dilip Soman, Gal Zauberman, Dan Ariely, Ziv Carmon, Punam A. Keller, B. Kyu Kim, Fern Lin, Selin Malkoc, Deborah A. Small, and Klaus Wertenbroch (2008), "How Behavioral Decision Research Can Enhance Consumer Welfare: From Freedom of Choice to Paternalistic Intervention," *Marketing Letters*, 19 (3), 383-97.
- Reed II, Americus. (2004), "Activating the Self-Importance of Consumer Selves: Exploring Identity Salience Effects on Judgments," *Journal of Consumer Research*, 31 (2), 286-295.

- Rothman, Alexander J. and Curtis D. Hardin (1997), "Differential Use of the Availability Heuristic in Social Judgment," *Personality and Social Psychology Bulletin*, 23 (2), 123-138.
- Rotliman, Alexander J. and Norbert Schwarz (1998), "Constructing Perceptions of Vulnerability: Personal Relevance and the Use of Experiential Information in Health Judgments," *Personality and Social Psychology Bulletin*, 24 (10), 1053-1064.
- Rubin, Daniel, Chrissy Martins, Veronika Ilyuk, and Diogo Hildebrand (2020), "Online Shopping Cart Abandonment: A Consumer Mindset Perspective," *Journal of Consumer Marketing*, 37 (5), 487-499.
- Schaupp, Christian L. and France Bélanger (2005), "A Conjoint Analysis of Online Consumer Satisfaction," *Journal of Electronic Commerce Research*, 6 (2), 95-111.
- Schoenbachler, Denise D. and Geoffrey L. Gordon (2002), "Trust and Customer Willingness to Provide Information in Database-Driven Relationship Marketing," *Journal of Interactive Marketing*, 16 (3), 2-16.
- Schwarz, Norbert, Herbert Bless, Fritz Strack, Gisela Klumpp, Helga Rittenauer-Schatka, and Annette Simons (1991), "Ease of Retrieval as Information: Another Look at the Availability Heuristic," *Journal of Personality and Social Psychology*, 61 (2), 195-202.
- Seo, Eunjin, Erika A. Patall, Marlone D. Henderson, and Rebecca R. Steingut (2018), "The Effects of Goal Origin and Implementation Intentions on Goal Commitment, Effort, and Performance," *Journal of Experimental Education*, 86 (3), 386-401.
- Shen, Luxi, Christopher K. Hsee, Qingsheng Wu, and Claire I. Tsai (2012), "Overpredicting and Underprofiting in Pricing Decisions," *Journal of Behavioral Decision Making*, 25 (5), 512-21.

- Simonson, Itamar (1990), "The Effect of Purchase Quantity and Timing on Variety-Seeking Behavior," *Journal of Marketing research*, 27 (2), 150-162.
- Statista.com (2021), "Number of Adult Digital Coupon Users in the United States," retrieved from <https://www.statista.com/statistics/273226/number-of-adult-digital-coupon-users-in-the-us>.
- Taylor, Shelley E. and Peter M. Gollwitzer (1995), "Effects of Mindset on Positive Illusions," *Journal of Personality and Social Psychology*, 69 (2), 213-226.
- Thaler, Richard H. and Cass R. Sunstein (2008), "Nudge: The Gentle Power of Choice Architecture," *New Haven, Connecticut: Yale University Press*.
- Tsai, Janice Y., Serge Egelman, Lorrie Cranor, and Alessandro Acquisti (2011), "The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study," *Information Systems Research*, 22 (2), 254-268.
- Tu, Yanping and Dilip Soman (2014), "The Categorization of Time and Its Impact on Task Initiation," *Journal of Consumer Research*, 41 (3), 810-822.
- Vaidyanathan, Rajiv, and Praveen Aggarwal (2002), "The Impact of Shopping Agents on Small Business E-Commerce Strategy," *Journal of Small Business Strategy*, 13 (1), 62-79.
- Van Boxtel, A. and M. Jessurun (1993), "Amplitude and Bilateral Coherency of Facial and Jaw-Elevator EMG Activity as an Index of Effort During a Two-Choice Serial Reaction Task," *Psychophysiology*, 30 (6), 589-604.
- Van Slyke, Craig, J. T. Shim, Richard Johnson, and James J. Jiang (2006), "Concern for Information Privacy and Online Consumer Purchasing," *Journal of the Association for Information Systems*, 7 (6), 415-444.

- Vana, Prasad, Anja Lambrecht, and Marco Bertini (2018), "Cashback is Cash Forward: Delaying a Discount to Entice Future Spending," *Journal of Marketing Research*, 55 (6), 852-868.
- Voss, Kevin E., Eric R. Spangenberg, and Bianca Grohmann (2003), "Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude," *Journal of Marketing Research*, 40 (3), 310-320.
- Walczuch, Rita and Henriette Lundgren (2004), "Psychological Antecedents of Institution-Based Consumer Trust in E-Retailing," *Information & Management*, 42 (1), 159-177.
- Ward, Ronald W. and James E. Davis (1978), "A Pooled Cross-section Time Series Model of Coupon Promotions," *American Journal of Agricultural Economics*, 60 (3), 393-401.
- White, Katherine and Darren W. Dahl (2007), "Are All Out-Groups Created Equal? Consumer Identity and Dissociative Influence," *Journal of Consumer Research*, 34 (4), 525-536.
- Wirtz, Jochen and May O. Lwin (2009), "Regulatory Focus Theory, Trust, and Privacy Concern," *Journal of Service Research*, 12 (2), 190-207.
- Xu, Alison Jing and Robert S. Wyer Jr. (2007), "The Effect of Mind-sets on Consumer Decision Strategies," *Journal of Consumer Research*, 34 (4), 556-566.
- Zeithaml, Valarie A., Arun Parasuraman, and Arvind Malhotra (2002), "Service Quality Delivery Through Websites: A Critical Review of Extant Knowledge," *Journal of the Academy of Marketing Science*, 30 (4), 362-375.
- Zhang, Zelin, Minghui Ma, Peter TL Popkowski Leszczyc, and Hejun Zhuang (2020), "The Influence of Coupon Duration on Consumers' Redemption Behavior and Brand Profitability," *European Journal of Operational Research*, 281 (1), 114-128.

Zhao, Min, Leonard Lee, and Dilip Soman (2012), “Crossing the Virtual Boundary: The Effect of Task-Irrelevant Environmental Cues on Task Implementation,” *Psychological Science*, 23 (10), 1200-1207.

Zhu, Meng and Rebecca K. Ratner (2015), “Scarcity Polarizes Preferences: The Impact on Choice among Multiple Items in a Product Class,” *Journal of Marketing Research*, 52 (1), 13–26.

Zviran, Moshe, Chanan Glezer, and Itay Avni (2006), “User Satisfaction from Commercial Web sites: The Effect of Design and Use,” *Information & Management*, 43 (2), 157-178.

ESSAY 1 APPENDIX

Sample Screenshots

Experiment Stimuli

Experiment 1

1. Identification at the door Condition

(Figure 1A-1 Store Entry Stage)

If you want to see the **discounted backpacks** at **Ubags.com**, **log into your account** using your **email address**. By **logging in**, you do **not** commit to making a purchase. That is, you will be **free not to buy** any of these backpacks.

Your Email Address:

James.Smith@gmail.com



Log In and Enter Store

If you do **not** want to see the **discounted backpacks** at **Ubags.com**, **do not enter the store**. Instead, you will go to **another store** and make a choice among products of a different type (**not backpacks**).

Do Not Enter Store

(Figure 1A-2 Product Options)

ubags.com Welcome, James.Smith@gmail.com[Exit Store Without Making a Purchase](#)

To see a more detailed description of one of the backpacks shown below, click "**See Details**".
You will be able to **select a backpack** for purchase from its **details** page.

<p>Black Diamond Patrol 25 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Border 35 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Black Diamond Nitro 26 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Inertia 25 Discounted Price: \$60 → \$15</p>  <p>See Details</p>
<p>Gregory Miwok 24 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Osprey HikeLite 26 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Citro 30 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Osprey Talon 22 Discounted Price: \$60 → \$15</p>  <p>See Details</p>

(Figure 1A-3 Purchase Completion Stage)

Ubags.com Welcome, James.Smith@gmail.com**COMPLETE YOUR PURCHASE**

**Gregory
Border 35**

Discounted Price: ~~\$60~~ → \$15

If you want to purchase this backpack, click the "**Complete Purchase**" button.

[Complete Purchase](#)

If you do **not** want to purchase this backpack, click the "**Exit Store Without Purchase**" button.

[Exit Store Without Purchase](#)

If you want to **go back to the overview of the available backpacks**, click [Back to Menu](#).

2. Identification at checkout condition

(Figure 1A-4 Store Entry Stage)

UBAGS.COM

If you want to see the **discounted backpacks** at **Ubags.com**, **enter the store**. By **entering the store**, you do **not** commit to making a purchase. That is, you will be **free not to buy** any of these backpacks.

Enter Store

If you do **not** want to see the **discounted backpacks** at **Ubags.com**, **do not enter the store**. Instead, you will go to **another store** and make a choice among products of a different type (**not backpacks**).

Do Not Enter Store

(Figure 1A-5 Product Options)

ubags.com Welcome, [Guest](#)

[Exit Store Without Making a Purchase](#)

To see a more detailed description of one of the backpacks shown below, **click "See Details"**. You will be able to **select a backpack** for purchase from its **details** page.

<p>Black Diamond Patrol 25 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Border 35 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Black Diamond Nitro 26 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Inertia 25 Discounted Price: \$60 → \$15</p>  <p>See Details</p>
<p>Gregory Miwok 24 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Osprey HikeLite 26 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Gregory Citro 30 Discounted Price: \$60 → \$15</p>  <p>See Details</p>	<p>Osprey Talon 22 Discounted Price: \$60 → \$15</p>  <p>See Details</p>

(Figure 1A-6 Purchase Completion Stage)

ubags.com Welcome, [Guest](#)

COMPLETE YOUR PURCHASE

**Black Diamond
Nitro 26**



Discounted Price: ~~\$69~~ → \$15

To **confirm** your purchase of this backpack at [ubags.com](#), **log into your account** using your **email address**.

Your Email Address:

James.Smith@gmail.com



Log In and Complete Purchase

If you do **not** want to purchase this backpack, click the "**Exit Store Without Purchase**" button.

Exit Store Without Purchase

If you want to **go back to the overview of the available backpacks**, click [Back to Menu](#).

Experiment 2

In the Mindset-Offset-Present Condition

(Figure 1A-7 The Activation of “Deliberative Mindset”)

Imagine that you are currently considering the possibility of **switching banks**, and that you are now **thinking about whether you actually want to do this** or not.

What are your main **reasons for vs. against** switching banks?

In the boxes below, enter **five reasons for** switching and **five reasons against** switching.

Reasons FOR Switching Banks	Reasons AGAINST Switching Banks
Reason 1: <input type="text"/>	Reason 1: <input type="text"/>
Reason 2: <input type="text"/>	Reason 2: <input type="text"/>
Reason 3: <input type="text"/>	Reason 3: <input type="text"/>
Reason 4: <input type="text"/>	Reason 4: <input type="text"/>
Reason 5: <input type="text"/>	Reason 5: <input type="text"/>

[Click here to continue](#)

(Figure 1A-8 The Activation of “Implemental Mindset”)

Imagine that **you have decided to switch banks**, and that you are **planning how you are going to go about this**.

What are the most important **steps** that need to be executed to switch banks?

In the boxes below, enter **five steps that need to be executed to switch banks**.

Steps That Need To Be Executed to Switch Banks
Step 1: <input type="text"/>
Step 2: <input type="text"/>
Step 3: <input type="text"/>
Step 4: <input type="text"/>
Step 5: <input type="text"/>

[Click here to continue](#)

Experiment 3

(Figure 1A-9 Water Bottle Product Options)

Coolwaterbottle.com Welcome, [Guest](#)

[Exit Store Without Making a Purchase](#)

To see a more detailed description of one of the water bottles shown below, **click "See Details"**.
You will be able to **select a water bottle** for purchase from its **details** page.

<p>CamelBak Chute Mag Bottle 25oz Price: \$45 → \$3</p>  <p>Choose Your Color:</p>  <p>See Details</p>	<p>Nalgene Everyday Water Bottle 34oz Price: \$45 → \$3</p>  <p>Choose Your Color:</p>  <p>See Details</p>	<p>Contigo Autospout Ashland Bottle 24oz Price: \$45 → \$3</p>  <p>Choose Your Color:</p>  <p>See Details</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

(Figure 1A-10 CAPTCHA at the Door)

If you want to see the **discounted water bottles** at **Coolwaterbottle.com**, **show you are not a robot**. By **clicking the button below**, you do **not** commit to making a purchase. That is, you will be **free not to buy** any of these water bottles.

I am not a robot


Submit and Enter Store

If you do **not** want to see the **discounted water bottles** at **Coolwaterbottle.com**, **do not enter the store**. Instead, you will go to **another store** and make a choice among products of a different type (**not water bottles**).

Do Not Enter Store

(Figure 1A-11 CAPTCHA at Checkout)

COMPLETE YOUR PURCHASE

**Nalgene Everyday
Water Bottle 34oz**



Discounted Price: ~~\$15~~ → \$3

To **confirm** your purchase of this water bottle at **Coolwaterbottle.com**, **show you are not a robot**.

I am not a robot


Submit and Complete Purchase

If you do **not** want to purchase this water bottle, click the **"Exit Store Without Purchase"** button.

Exit Store Without Purchase

Reminder: The winner will receive **\$3**, which they **(a)** use to pay for their chosen water bottle (regular price: \$15, discounted price: \$3) in full if they complete a purchase or **(b)** receive as an Mturk bonus of \$3 if they do not purchase any of the water bottles.

If you want to **go back to the overview of the available water bottles**, click [Back to Menu](#).

Experiment 4

(Figure 1A-12 Guest Identification at the Door)

If you want to see the **discounted backpacks** at **ubags.com**, **log into your account as a guest**. By **guest-logging in**, you do **not** commit to making a purchase. That is, you will be **free not to buy** any of these backpacks.

Log in as a Guest:



If you do **not** want to see the **discounted backpacks** at **ubags.com**, **do not enter the store**. Instead, you will go to **another store** and make a choice among products of a different type (**not backpacks**).

(Figure 1A-13 Guest Identification at checkout)

COMPLETE YOUR PURCHASE

**Black Diamond
Nitro 26**



Discounted Price: ~~\$60~~ → \$15

To **confirm** your purchase of this backpack at **ubags.com**, **log into your account as a guest**.

Log in as a Guest:



If you do **not** want to purchase this backpack, click the "**Exit Store Without Purchase**" button.

Reminder: The winner will receive **\$15**, which they **(a)** use to pay for their chosen backpack (regular price: \$60, discounted price: \$15) in full if they complete a purchase or **(b)** receive as an Mturk bonus of \$15 if they do not purchase any of the backpacks.

If you want to **go back to the overview of the available backpacks**, click [Back to Menu](#).

Experiment 5

(Figure 1A-14 High Effort Identification at the Door)

If you want to see the **discounted water bottles** at **Coolwaterbottle.com**, enter the following **7-digit verification code** below. Then, you will be required to **log into** your account using your **email address** to **enter the store**.

Your Email Address:
James.Smith@gmail.com

Enter the **7-digit verification code** below to **log in**

1 8 1 5 0 9 1

 [Coolwaterbottle.com](#)

If you do **not** want to see the **discounted water bottles** at **Coolwaterbottle.com**, do **not** enter the store. Instead, you will shop **elsewhere**.

(Figure 1A-15 High Effort Identification at Checkout)

COMPLETE YOUR PURCHASE

**Nalgene Everyday
Water Bottle 34oz**



Discounted Price: ~~\$10~~ → \$2

To **confirm** your purchase of this water bottle at **Coolwaterbottle.com**, enter the following **7-digit verification code** below. Then, you will be required to **log into** your account using your **email address** to **complete your purchase**.

Your Email Address:
James.Smith@gmail.com

Enter the **7-digit verification code** below to **log in**

1 8 1 5 0 9 1

 [Coolwaterbottle.com](#)

If you do **not** want to purchase this water bottle, click the **"Exit Store Without Purchase"** button.

If you want to **go back to the overview of the available water bottles**, click [Back to Menu](#).

ESSAY 2 APPENDIX

Sample Screenshots

Experiment Stimuli

Experiment 1A

(Figure 2A-1 The Activation of “Deliberative Mindset”)

Imagine that you are currently considering the possibility of **switching banks**, and that you are now **thinking about whether you actually want to do this** or not.

What are your main **reasons for vs. against** switching banks?

In the boxes below, enter **five reasons for** switching and **five reasons against** switching.

Reasons FOR Switching Banks	Reasons AGAINST Switching Banks
Reason 1: <input type="text"/>	Reason 1: <input type="text"/>
Reason 2: <input type="text"/>	Reason 2: <input type="text"/>
Reason 3: <input type="text"/>	Reason 3: <input type="text"/>
Reason 4: <input type="text"/>	Reason 4: <input type="text"/>
Reason 5: <input type="text"/>	Reason 5: <input type="text"/>

[Click here to continue](#)

(Figure 2A-2 The Activation of “Implemental Mindset”)

Imagine that **you have decided to switch banks**, and that you are **planning how you are going to go about this**.

What are the most important **steps** that need to be executed to switch banks?

In the boxes below, enter **five steps that need to be executed to switch banks**.

Steps That Need To Be Executed to Switch Banks
Step 1: <input type="text"/>
Step 2: <input type="text"/>
Step 3: <input type="text"/>
Step 4: <input type="text"/>
Step 5: <input type="text"/>

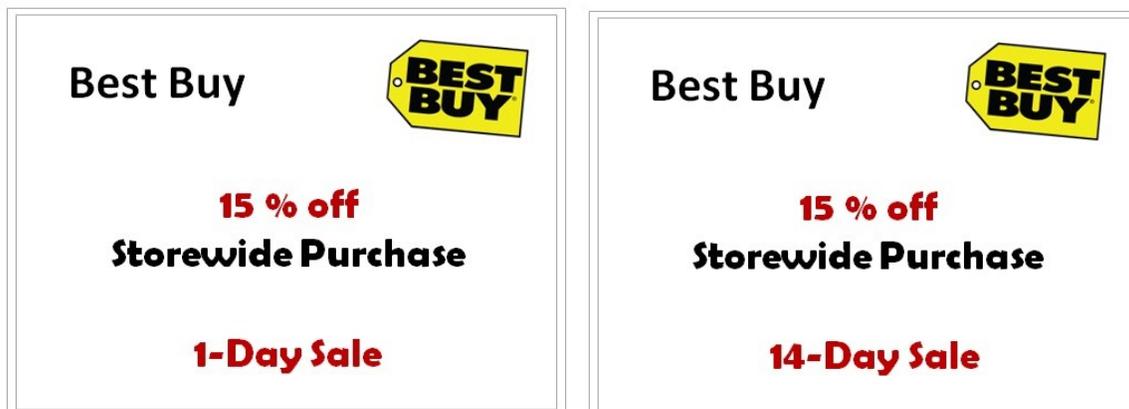
[Click here to continue](#)

(Figure 2A-3 “Home Depot” Promotional Offers (Short versus Long))

<p>Home Depot</p>  <p>15 % off Any Purchase</p> <p>1-Day Sale</p>	<p>Home Depot</p>  <p>15 % off Any Purchase</p> <p>14-Day Sale</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

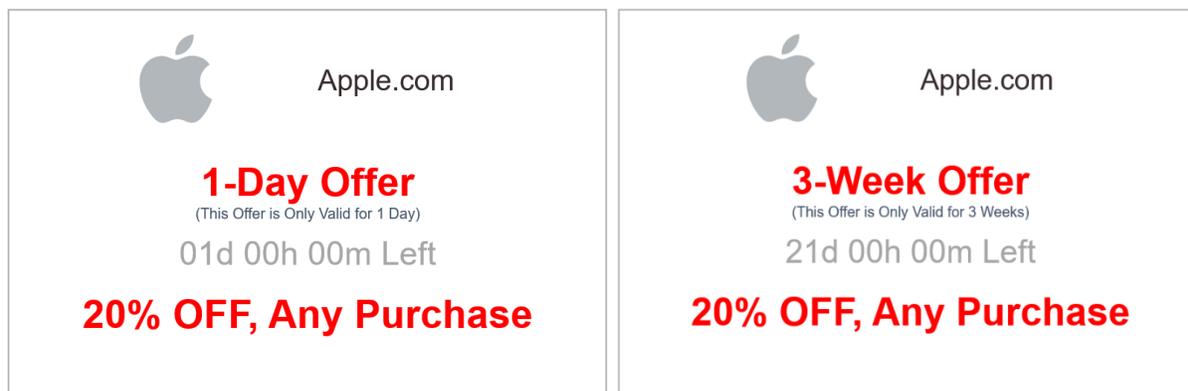
Experiment 1B

(Figure 2A-4 “Best Buy” Promotional Offers (Short versus Long))



Experiment 2

(Figure 2A-5 “Apple” Promotional Offers (Short versus Long))



Experiment 3

(Figure 2A-6 “Disney Store” Promotional Offers (Short versus Long))



(Figure 2A-7 “HP Ink & Cartridges” Promotional Offers (Short versus Long))



Experiment 4

(Figure 2A-8 Mindset Manipulation Instructions)

Examine these four cans carefully and focus particularly on the **color** of the **cans**.



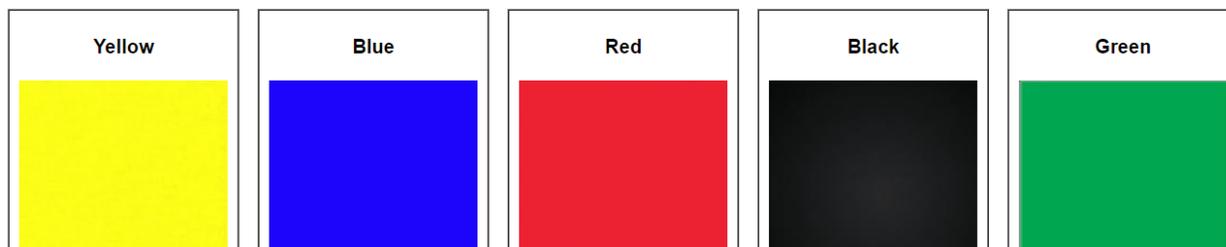
The continue button will appear after 10 seconds.

Continue

(Figure 2A-9 The Activation of “Deliberative Mindset”)

Which of the colors below was **not a can color** on the previous screen?

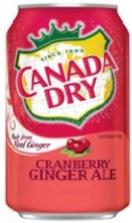
Click on the color you **did not see** on the previous screen.



(Figure 2A-10 The Activation of “Implemental Mindset”)

Which of these sodas do you **like the best**?

Click on the one you like the best.

<p>Club Soda Price: \$1.00</p> 	<p>Ginger Ale Price: \$1.00</p> 	<p>Cranberry Price: \$1.00</p> 	<p>Tonic Water Price: \$1.00</p> 
-----------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------

(Figure 2A-11 Shorter versus Longer Redemption Window Promotions)

Short Redemption Window

Limited Time Only: 30 Seconds left

To take advantage of the '**Buy One, Get One Free**' promotion for your purchase, click on the **can** that you would like to purchase.

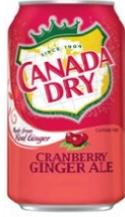
<p>Club Soda Price: \$1.00</p> 	<p>Ginger Ale Price: \$1.00</p> 	<p>Cranberry Price: \$1.00</p> 	<p>Tonic Water Price: \$1.00</p> 
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I am **not ready** to make a decision.
Ask me again at the end of the session.

I do **not** want to buy any of these sodas.
I want to **keep the \$1.00** instead.

Long Redemption Window

To take advantage of the '**Buy One, Get One Free**' promotion for your purchase, click on the **can** that you would like to purchase.

<p>Club Soda Price: \$1.00</p> 	<p>Ginger Ale Price: \$1.00</p> 	<p>Cranberry Price: \$1.00</p> 	<p>Tonic Water Price: \$1.00</p> 
<p>I am not ready to make a decision. Ask me again at the end of the session.</p>		<p>I do not want to buy any of these sodas. I want to keep the \$1.00 instead.</p>	

(Figure 2A-12 Purchase Confirmation)



You chose to buy **two Canada Dry Ginger Ales** at **\$1.00**.

At the end of today's session, please see the **administrator** to complete your purchase.

Continue