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Preference for Autonomy in Consumer Decision Making: On the Antecedents and the Consequences of Consumers' Relinquishment of Decision Control to Surrogates

by

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ABSTRACT

This dissertation investigates the psychological processes relevant to consumers' relinquishment of decision control to surrogates (e.g., physician, financial advisor). While the first essay investigates the antecedents of relinquishing decision control to surrogates, the second essay focuses on the consequences of such relinquishment of control. The first essay proposes that a key reason for consumers' reluctance to relinquish the control of their decisions to expert surrogates is that such relinquishment contradicts their inherent motivation to experience an internal perceived locus of causality (PLOC) for their decisions. Based on this, I hypothesize that consumers become more likely to relinquish decision control either (1) when their motivation to maintain an internal PLOC is weakened or (2) when contextual factors specific to the decision itself are present that shift the anticipated PLOC for it from internal to external. Evidence from three studies provides strong support for this theoretical framework. I show that consumers' willingness to relinquish decision control increases when an external PLOC is induced directly (Study 1), when an external event restricts the set of available alternatives (Study 2), and when an incentive to choose a particular alternative is present (Study 3). Based on the self-regulatory strength model and prior research on self-esteem threats, the second essay predicts and shows that delegating decisions to surrogates depletes consumers' limited self-regulatory resources more than making the same decisions independently, thus impairing their subsequent ability to exercise self-control. This is the case even though decision delegation actually requires less decision making effort than independent decision making (Study 1). However, the resource depleting effect of decision delegation vanishes when consumers have an opportunity to affirm their belief in free will (Study 2).

Moreover, remembering a past decision that one delegated impairs self control more than remembering a decision that one made independently (Studies 3 and 4). The theoretical and practical implications of these findings are discussed.

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I. INTRODUCTION

Surrogates are professionals who conduct marketplace activities on behalf of consumers (Hollander and Rassuli 1999; Solomon 1986). A large number of experts including financial advisors, physicians, dentists, image consultants, career planners, landscape architects, wedding planners, travel agents, party organizers, interior designers, and veterinarians can serve as surrogates (Hollander and Rassuli 1999; Solomon 1986). These surrogates may perform a large variety of functions while assisting consumers with their decisions in domains where consumers lack resources such as time and expertise. These functions include searching for information, evaluating product attributes, eliminating alternatives, and making choices (Hollander and Rassuli 1999).

A surrogate hired by a consumer may perform some or all of these functions on behalf of the consumer. The more of these functions a surrogate performs the more control the surrogate have over the consumer's decision. Therefore, an important dimension by which the surrogate services vary is the amount of decision control that the consumer relinquishes to a surrogate (Hollander and Rassuli 1999; Solomon 1986). Previous survey-based research indicates that consumers find the information search function of surrogates more valuable than their choice-making function (Forsythe, Butler, and Schaefer 1990). This implies that consumers prefer to use a surrogate for services that do not require them to relinquish the final control of their decisions to the surrogate.

Although it has been suggested that consumers' decisions on how much control they relinquish to surrogates should be better understood (Hollander and Rassuli 1999; Solomon 1986), research on the psychological processes that underlie consumers' decisions as to relinquishing the control of their decisions to surrogates has been limited.

Previous consumer research demonstrated that consumers had a robust preference for making their choices on their own rather than having those choices made by others on their behalf. When the alternatives to choose between were attractive, consumers were less satisfied with the decisions made by others on their behalf than they were with decisions they made themselves (Botti and Iyengar 2006). This difference in satisfaction between self-made and other-made decisions disappeared when the decision alternatives were unattractive, but consumers strongly preferred being a chooser to being a non-chooser regardless of the attractiveness of decision alternatives (Botti and Iyengar 2006). In addition, when alternatives to choose between were differentiable, consumers were more satisfied with self-made decisions than they were with other-made decisions (Botti and McGill 2006). This difference in satisfaction disappeared when the decision alternatives were not easily differentiable, but consumers' preference for being a chooser persisted regardless of the differentiability of decision alternatives (Botti and McGill 2006). Although consumers liked having a highly consequential and highly undesirable choice made by a surrogate on their behalf more than they liked making it on their own, they were clearly unwilling to relinquish this choice to the surrogate (Botti, Orfali, and Iyengar 2009).

Although Botti and colleagues identified some factors that determine whether consumers were less satisfied with other-made decisions than they were with self-made decisions, they did not show the conditions under which consumers became more likely to give up decision control. Previous research on advice taking and decision aids also failed to identify the situations that influence individuals' likelihood of relinquishing the control of their decisions. While a considerable amount of research has examined how

people respond to advice given that it is provided to them (see Bonaccio and Dalal 2006 for a review), very little is known about how individuals decide whether or not to obtain advice in the first place. Therefore, the vast majority of prior work in the area of decision assistance has focused on decision makers' interaction with advice that is compulsory (e.g., Harvey and Fischer 1997; Koestner et al. 1999; Sieck and Arkes 2005), and on the effects of such compulsory decision assistance on variables such as the amount of information search they engage in and the quality of their assisted decisions (e.g., Diehl 2005; Häubl and Trifts, 2000). The limited prior research on the likelihood to obtain advice has shown that, not surprisingly, more advice is solicited from advisors who are more accurate (Yaniv and Kleinberger 2000) and that people are more likely to obtain free rather than costly advice (Gino 2008). However, this research did not investigate individuals' likelihood to obtain decision assistance that required complete relinquishment of control such as the delegation of their decisions to an advisor.

Previous research on agents who make purchases on behalf of consumers has shown that providing agents with informative feedback about their choices for a consumer helps them predict the consumer's preferences more accurately (West 1996). Consumers' evaluation of an agent's past performance occasionally leads them to select inferior agents and decreases the quality of consumer decisions made using the recommendations of such agents (Gershoff, Broniarczyk, and West 2001). Consumers prefer agents who agreed with them on liked alternatives in the past to those who agreed with them on disliked alternatives in the past (Gershoff, Mukherjee, and Mukhopadhyay 2003). This is because consumers perceive the ambiguity about an agent's negative ratings to be greater than the ambiguity about the same agent's positive ratings (Gershoff,

Mukherjee, and Mukhopadhyay 2007). Therefore, the stream of research on agents focused on the learning processes of agents and consumers' selection of agents who provided recommendations regarding consumers' purchase decisions, but did not investigate consumers' relinquishment of decision control to such agents.

The psychology literature on the factors that influence people's tendency to relinquish control has investigated whether individuals who are predisposed to demonstrate the Type A behavior pattern (i.e., time urgency, ambition, hostility, competitiveness, aggressiveness) are more reluctant to relinquish control than those who possess the Type B personality (Miller, Lack, and Asroff 1985; Strube and Werner 1985). While performing a task that involved turning off a loud sound by pressing a series of buttons, Type B individuals were willing to relinquish the control of the task to a more competent task partner (Miller et al. 1985). While doing a similar reaction time task, Type A individuals relinquished a smaller number of trials to a more competent task pattern than Type B individuals did (Strube and Werner 1985). Encouraging elaboration about the task partner's superior performance before the control relinquishment decision eliminated the effect of Type A-Type B personality on the tendency to relinquish control (Strube, Berry, and Moergen 1985). Moreover, individuals high on a general measure of desire for control (Burger and Cooper 1979) were more likely than those low in this measure to retain task control (Burger, McWard, and LaTorre 1989). Although this stream of research provided valuable insight into the role that individual differences played in relinquishment of task control, it failed to provide a broad theoretical framework that accounts for individuals' decisions to relinquish control to another individual.

To summarize, previous research failed to demonstrate the factors that determine whether consumers relinquish the control of their decisions to surrogates. Furthermore, a theoretical framework that explains the psychological processes underlying consumers' decisions to relinquish control is lacking. Therefore, the first essay of my dissertation proposes and tests a theoretical framework to explain the conditions under which consumers relinquish the control of their decisions to surrogates. Using self-determination theory (Deci and Ryan 1991; 2000), this essay identifies a key reason why consumers are reluctant to relinquish the control of their decisions and predicts various conditions that render this reason ineffective and in turn, increase consumers' willingness to relinquish the control their decisions to a surrogate competent to perform it on their behalf.

Self-determination theory suggests that humans are inherently motivated to follow internally originated interests and to experience themselves as the source of their actions because doing so allows them to satisfy their basic psychological need for autonomy (Deci and Ryan 1991; 2000). Furthermore, when one feels that one's reason to engage in that behavior originates from a force external to one's self (e.g., deadlines, rewards), one experiences an external perceived locus of causality. On the other hand, one who perceives that one's reason to engage in a behavior originates from one's self (e.g., interest, enjoyment) experiences an internal perceived locus of causality with respect to that behavior (deCharms 1968; Ryan and Connell 1989; Ryan and Grolnick 1986). Individuals can satisfy their need for autonomy by engaging in behaviors for which the perceived locus of causality (PLOC) is internal (Deci and Ryan 1991; 2000).

Relinquished behaviors are externally controlled – they are executed by another person on behalf of the one who relinquishes control. An individual who gives away the control of a behavior cannot infer that the relinquished behavior is self-endorsed (i.e., originates from the self) and, thus, cannot experience an internal PLOC for it. Furthermore, consumers should experience an external PLOC for a decision the control of which was relinquished to a surrogate, because the perceived reason to make that decision in a particular way (e.g., choosing alternative A over alternative B) originates from an external factor (i.e., the surrogate). Therefore, relinquishing the control of their decisions should contradict consumers' inherent motivation to maintain an internal PLOC for their behaviors. I suggest that this contradiction is a key reason why consumers are reluctant to relinquish the control of their decisions.

Based on this, I propose that consumers' likelihood of relinquishing the control of a decision to a surrogate can be increased either (1) by weakening their motivation to experience an internal PLOC for behaviors or (2) by presenting contextual factors which shift the anticipated PLOC for a decision from internal to external. Three experiments provided results that support these propositions. Study 1 showed that consumers in a motivation to experience an external PLOC were more likely to relinquish the control of their decision to a surrogate than those in a motivation to experience an internal PLOC. Studies 2 and 3 investigated whether an external factor present in the decision's context influenced consumers' likelihood to delegate their decisions to a surrogate by creating the perception among consumers that they would not be able to experience an internal PLOC for the decision even if they made the decision independently. In the presence of such contextual factors, the benefits of relinquishing decision control to an expert surrogate

(e.g., saving time, increasing decision quality using the surrogate's expertise) will increase relative to its costs (e.g., losing the opportunity to experience an internal PLOC). Thus, the presence of such factors in a decision's context should increase a consumer's willingness to delegate that decision to a surrogate competent to perform it on the consumer's behalf. In support of this, an external event that caused a reduction in the number of alternatives available for choice (Study 2) and the provision of an incentive to choose a particular decision alternative (Study 3) both led to an increase in consumers' willingness to relinquish decision control to a surrogate.

The first essay contributes to the literature on consumer surrogate usage (Forsythe et al. 1990; Hollander and Rassuli 1999; Solomon 1986, 1987) by proposing and testing a theoretical framework that identify the *antecedents* of consumers' relinquishment of the control of their decisions to surrogates. Moreover, these findings expand the literature on the relinquishment of control, which to date has focused on which traits (e.g., Type A personality) are correlated with how reluctant an individual is to relinquish the control of a task to someone else (e.g., Miller, Lack, and Asroff 1985; Strube, Berry, and Moergen 1985; Strube and Werner 1985). Finally, this essay is the first research to propose and test a theoretical framework for the relinquishment of control based on self-determination theory (Deci and Ryan 1985, 1991, 2000).

While the first essay of my dissertation investigates the antecedents of consumers' relinquishment of decision control, the second essay focuses on a *consequence* that consumers face as a result of it. Based on the self-regulatory strength model (Baumeister, 1998) and prior work on threats to self-esteem (e.g., Steele 1988; Steele and Liu 1983), I propose that delegating a decision to a surrogate poses a self-esteem threat, and that

coping with this threat depletes consumers' limited self-regulatory resources (i.e., impairs their ability to exercise self-control) more than making the same decision independently. The findings of four studies provide clear support for these hypotheses – delegating a decision to a surrogate leads to lower performance on a subsequent task that requires self-control than making the same decision independently (Study 1), affirmation of individuals' beliefs in free will eliminates the resource depletion caused by decision delegation (Study 2), providing a reminder of a decision that was delegated to someone else in the past depletes more resources than remembering a decision that was made independently (Studies 3 and 4).

The second essay contributes to the literature on surrogate usage by examining the psychological outcomes of consumers' decisions to relinquish control to surrogates. In addition, it advances the literature on freedom of choice by showing that an important reason why consumers desire to have freedom of choice (e.g., Botti and Hsee 2010, Fitzsimons and Lehmann 2004, Kivetz 2005) – and thus might be reluctant to delegate their decisions to surrogates – is that relinquishing this freedom depletes their self-regulatory resources and impairs their ability to exert self-control. Finally, the present research also contributes to the psychology literature on the relinquishment of control (e.g., Strube and Werner 1985) in that it is the first to investigate this phenomenon using the self-regulatory strength model as a theoretical framework.

In conclusion, there is a gap in the literature regarding the psychological processes relevant to consumers' relinquishment of decision control to surrogates. The first essay of my dissertation contributes to the literature by developing and examining a theoretical framework that allows consumer researchers to predict various factors that

influence consumers' decisions to relinquish control to surrogates. The second essay of my dissertation makes a contribution to the literature by focusing on psychological consequences of relinquishing decision control that have not been identified by previous research.

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II. ESSAY 1: THE ROLE OF PERCEIVED LOCUS OF CAUSALITY IN CONSUMERS' RELINQUISHMENT OF DECISION CONTROL TO SURROGATES

Help from experts is available for many consumer decisions – ranging from purchasing clothes to choosing which financial assets to invest in. In some cases, such experts serve as surrogates who conduct marketplace activities on behalf of the consumer (Hollander and Rassuli 1999; Solomon 1986). A consumer who uses the services of an expert surrogate (e.g., a financial advisor or a physician) relinquishes, at least partially, the control of the decision-making process to the surrogate (Hollander and Rassuli 1999; Solomon 1986). Thus, when considering the use of a surrogate, consumers must decide whether they are willing to relinquish (some) control of the decision-making process. Prior research has shown that surrogate usage is correlated with demographic factors, shopping attitudes, and the sources from which consumers obtain information (Forsythe et al. 1990; Solomon 1987). However, research on the psychological processes that determine whether a consumer relinquishes the control of a decision to a surrogate has been limited.

Survey-based research suggests that consumers who use surrogates prefer to retain the final control of their decisions (Forsythe, Butler, and Schaeffer 1990). Prior experimental work also shows that consumers have a strong preference for retaining the control of their decisions, and that this preference is robust to variations in choice context (Botti and Iyengar 2004; Botti and McGill 2006; Botti and Hsee 2010). Decision makers systematically underestimate the cognitive and emotional costs of choosing relative to its benefits and this may explain their preference for having choice freedom (Botti and Hsee

2010). However, individuals can also be ambivalent about relinquishing the control of decisions that are both highly consequential and undesirable (Botti, Orfali, and Iyengar 2009). Moreover, research on the use of information sources has investigated how consumers evaluate and select agents that provide recommendations (e.g., Gershoff, Broniarczyk, and West 2001; Gershoff, Mukherjee, and Mukhopadhyay 2003, 2007), but that work has not examined the relinquishment of decision control to such agents. To summarize, although prior research suggests that consumers tend to be reluctant to relinquish the control of their decisions, the psychological processes that determine whether such relinquishment occurs are not well understood, and a theoretical framework to explain consumers' relinquishment of decision control is much needed.

In developing such a theoretical framework, I draw on work in the areas of self-determination theory (Deci and Ryan 1991; 2000) and perceived locus of causality (PLOC) (deCharms 1968; Ryan and Connell 1989; Ryan and Grolnick 1986). I propose that relinquishing the control of a decision causes consumers to experience an *external* PLOC with respect to that decision. That is, consumers who relinquish the control of their decisions to a surrogate attribute their reason to make the decision in a particular way (e.g., choosing a particular alternative over another) to the surrogate and not to their internal desires and preferences. Thus, relinquishing decision control *conflicts* with humans' inherent motivation to maintain an *internal* PLOC for their behaviors (Deci and Ryan 1985, 1991, 2000). Based on this, I propose that consumers' likelihood of relinquishing the control of a decision to a surrogate can be increased by either directly changing the motivational state that consumers are in or presenting contextual factors which shift the anticipated PLOC for a decision from internal to external.

I report the results of three studies that provide strong support for these theoretical propositions. First, I demonstrate that consumers who approach a decision in a motivation to experience an external PLOC show less reluctance to relinquish the control of that decision than do those who approach the same decision in a motivation to experience an internal PLOC (Study 1). This result supports the notion that a key reason why consumers are reluctant to relinquish the control of their decisions is their motivation to experience an internal PLOC for their decisions. Thus, contextual factors that render this reason ineffective (such as those that cause consumers to anticipate experiencing an external PLOC for their decisions) should make relinquishing the control of their decisions to expert surrogates seem more appealing to consumers. Specifically, I demonstrate that consumers become more willing to relinquish decision control in contexts where the number of alternatives to choose from is reduced due to an external event (Study 2) and where an incentive to choose a particular decision alternative induces pressure to make the decision in a particular way (Study 3).

This essay contributes to the literature on consumer surrogate usage (Forsythe et al. 1990; Hollander and Rassuli 1999; Solomon 1986, 1987) by proposing and testing a theoretical framework to predict the conditions under which consumers are more likely to relinquish the control of their decisions to surrogates. Moreover, these findings expand the literature on the relinquishment of control, which to date has focused on which traits (e.g., Type A personality) are correlated with how reluctant an individual is to relinquish the control of a task to someone else (e.g., Miller, Lack, and Asroff 1985; Strube, Berry, and Moergen 1985; Strube and Werner 1985). Finally, the present research is the first to

propose and test a theoretical framework for the relinquishment of control based on self-determination theory (Deci and Ryan 1985, 1991, 2000).

Theoretical Framework

Self-determination theory (Deci and Ryan 1985, 1991, 2000) suggests that humans have a basic psychological need for autonomy – i.e., a desire to feel that one's self is the source of one's actions – that they are inherently motivated to satisfy. The satisfaction of this need depends on whether individuals perceive that their reasons to behave in certain ways are based on their own internal desires and preferences. When the reason to engage in a behavior originates from one's self (e.g., personal interests or desires), one experiences an internal PLOC with respect to that behavior (e.g., Ryan and Connell 1989; Ryan and Grolnick 1986). By contrast, when the reason to engage in a behavior originates from a force external to one's self (e.g., rewards, deadlines), one experiences an external PLOC in connection with that behavior (e.g., Deci 1971; Amabile, DeJong, and Lepper 1976). It is important to note that the psychological construct of PLOC (deCharms 1968) is distinct from that of locus of control (Rotter 1966) – the former refers to the perceived reason to engage in a behavior, whereas the latter is the belief that one can achieve desirable outcomes (Deci, Koestner, and Ryan 1999b; Deci and Ryan 1985).

Contexts that promote the experience of an internal PLOC have been shown to increase personal well-being (Markus and Schwartz 2010; Reis et al. 2000; Sheldon, Ryan, and Reis 1996), cause intrinsic motivation (Deci, Koestner, and Ryan 1999a), facilitate the internalization of the values and activities endorsed by the society (Deci, Eghrari, Patrick, and Leone 1994; Ryan and Connell 1989), enhance learning and

performance (Vansteenkiste et al. 2004), and lead to greater persistence in behavior change (Williams et al. 1996). Research on decision making has shown that decisions for which the PLOC is internal consume less self-regulatory resources than do decisions for which the PLOC is external (Moller, Deci, and Ryan 2006; Usta and Häubl 2010). Moreover, experiencing an internal PLOC for highly undesirable decisions can intensify the negative affect experienced while making such decisions (Botti et al. 2009).

I propose that PLOC is also central to understanding consumers' relinquishment of decision control to surrogates. Consumers should experience an *internal* PLOC for a decision the outcome of which they control because the reason to make such a decision in a particular way (e.g., to choose product A over product B) originates from them. By contrast, when the surrogate makes a decision on behalf of the consumer, the reason to make that decision in a particular way originates from the surrogate. Hence, consumers should experience an *external* PLOC for a decision the control of which they relinquish to a surrogate. Relinquishing decision control should shift the PLOC for the decision from internal to external and, thus, conflict with consumers' inherent motivation to maintain an internal PLOC for their behaviors.

What makes consumers relinquish the control of their decisions in the face of such a conflict? Humans' inherent motivation to seek opportunities that allow them to experience an internal PLOC for their behaviors (Deci and Ryan 2000) can be temporarily suppressed by interventions that create a motivational state characterized by the experience of an external PLOC (e.g., Hodgins, Brown, and Carver 2007; Levesque and Pelletier 2003; Nix, Ryan, Manly, and Deci 1999; Ratelle, Baldwin, and Vallerand 2005; Weinstein and Hodgins 2009). If the relinquishment of decision control to

surrogates conflicts with consumers' inherent motivation to experience an internal PLOC for their behaviors, consumers' reluctance to relinquish the control of their decisions should be *weaker* when their motivational state reflects the experience of an *external* rather than an internal PLOC for their behaviors.

If a key reason that underlies consumers' reluctance to relinquish decision control is their motivation to experience an internal PLOC, factors that render this reason ineffective should make relinquishing control to an expert surrogate seem more appealing. In other words, the benefits of using an expert's services (e.g., saving time, increasing decision quality) should outweigh the psychological costs of using such services (e.g., enduring the psychological consequences of feeling an external PLOC) when contextual factors prevent consumers from expecting to experience an internal PLOC for their decisions. Thus, I suggest that consumers' likelihood of relinquishing decision control to an expert surrogate also increase when contextual factors related to the decision itself shift the anticipated PLOC for that decision from internal to external.

Certain contextual factors relevant to the initiation and regulation of a behavior create the feeling that one is being pressured to perform that behavior (for a review, see Deci and Ryan 1987). For example, the provision of monetary rewards contingent on performing an activity decreases the intrinsic motivation for that activity (e.g., Deci 1971). An externally imposed deadline for the completion of a task reduces subsequent interest in performing that task (Amabile et al. 1976). The key property of these contextual factors is that they cause humans to attribute the reason to engage in a behavior to an external force (such as a monetary reward or a deadline) and, thus, to

experience an *external* PLOC for that behavior (Deci and Ryan 1985; Deci, Koestner, and Ryan 1991).

Based on this prior work, I propose that contextual factors that undermine consumers' experience of an internal PLOC in connection with a decision increase their willingness to relinquish the control of that decision to a surrogate. Such factors cause consumers to attribute the reason for making the decision in a particular way to the decision context rather than to their own preferences, thus shifting the anticipated PLOC from internal to external. I propose that experiencing an external PLOC by relinquishing the control of a decision to an expert surrogate is more appealing to consumers when the anticipated PLOC for that decision is external rather than internal, and that the presence of a contextual factor that makes consumers' anticipated PLOC for the decision external, therefore, increases their willingness to relinquish the control of the decision to a surrogate competent to perform it on their behalf.

To summarize, the following two propositions can be derived from this theoretical framework. Consumers are more willing to relinquish the control of a decision to a surrogate (1) when their motivational state reflects the experience of an external PLOC and (2) when a contextual factor relevant to that particular decision shifts consumers' anticipated PLOC for that decision from internal to external. The first proposition is tested in Study 1, whereas the second one is examined in Studies 2 and 3, with each of these studies focusing on a different contextual factor that changes the anticipated PLOC. All studies were conducted via the internet following the standard guidelines for this method of data collection (Birnbaum 2004).

Study 1

Surrogate services vary in terms of the amount of control implemented by the surrogate on consumers' decisions and consumers may respond differently to different levels of surrogate control (Hollander and Rassuli 1999; Solomon 1986). Therefore, participants in this study were offered one of two types of surrogate services, with the surrogate either providing advice by indicating which alternative the participant should choose ("recommendation") or making the decision on behalf of the participant ("delegation"). These services were equivalent in terms of the information that was available to participants. The surrogate's decision in the delegation condition was the same as that advocated in the recommendation condition. However, the two conditions differed in one critical aspect – obtaining a recommendation allowed participants to retain the final control of their decision, whereas delegating the decision did not.

Delegating a decision causes a shift in consumers' PLOC for the decision from internal to external. Consumers can satisfy their motivation to maintain an internal PLOC by avoiding decision delegation. If the motivation to experience an internal PLOC for decisions underlies consumers' reluctance to delegate their decisions, they should be less likely to delegate the decision when their inherent motivation to experience an internal PLOC prevails than when this motivation is temporarily suppressed. By contrast, obtaining a recommendation in connection with a decision does not shift consumers' PLOC for the decision from internal to external to the same extent as delegating the decision because consumers who receive a recommendation retain control of the ultimate decision. Therefore, whether consumers are motivated to experience an internal PLOC

should have *less* of an impact on their willingness to obtain a recommendation than on their willingness to delegate.

Method

Participants and Design. A hundred and fifty-three U.S. residents (107 females, median age: 42.5) were recruited from a university-run internet-based research panel. They received a guaranteed payment of $4 and an additional amount that was contingent on their choices during the study. Participants were randomly assigned to the cells of a 2 (motivational state: internal PLOC vs. external PLOC) x 2 (type of surrogate service: recommendation vs. delegation) between-subjects experimental design.

Procedure. Participants completed the study via the internet using their own computers. They were first introduced to a card sorting task (Wisconsin Card Sort; Berg and Grant 1980) that was designed to manipulate their motivational state (Nix et al. 1999). Participants received instructions indicating that they were to match each of 64 stimulus cards to one of four key cards that remained the same throughout the task. They were informed that there was one correct way of matching the cards at each point in time and that, after each of the 64 stimulus cards, they would receive feedback as to whether their most recent match was correct. Participants in the *internal* PLOC condition were allowed to match the cards as they wished. Those in the *external* PLOC condition were instructed to match the stimulus cards to key cards according to a pre-determined pattern, which was based on how someone else had chosen to match the same cards (Nix et al. 1999).

The cards could be matched either by number, by shape, or by color. The rule for what determines a correct match (i.e., by number, shape, or color) changed twice at equal

intervals in both conditions (Nix et al. 1999). After each match, participants in the internal PLOC condition learned whether this match was correct or not according to the rule that was in effect at the time. Participants in the external PLOC condition received explicit instructions about how to match each card ("Match this Card with Key Card __."). These instructions were based on the rule of correct match in effect. The feedback provided to participants in the external PLOC condition indicated whether they had complied with the matching instruction or not. If they did not comply with the instruction, they were presented with the same stimulus card again, and they were not allowed to proceed until they had matched it as instructed. After the card task, participants responded to the Perceived Choice subscale of the Intrinsic Motivation Inventory (see Appendix 2-1; McAuley, Duncan, and Tammen 1989; Ryan 1982) as a manipulation check for their motivational state (Nix et al. 1999; Ryan, Koestner, and Deci 1991).

In the next part of the experiment, participants' task was to invest a hypothetical capital of $100 in one of two stocks, randomly selected from a subset of stocks traded on the New York Stock Exchange. To ensure that the task resembled actual investment decisions as closely as possible, participants were informed that they would be choosing among stocks whose actual rates of return were known (their one-year investment period was the previous calendar year) and that the annual return of the stock they chose would be paid out to them upon completion of the study. The names of the stocks were disguised (and identified by random letters) to prevent discovery of the stocks' actual past returns. To manage participants' expectations about the return on their investment,

they were told that the annual rates of return of all stocks included in the study were between 1 and 10 percent during the investment period.

To familiarize participants with the four feature dimensions (return on assets, return on equity, profit margin, and yearly revenue growth) used to characterize the stocks, they were provided with non-technical definitions of these dimensions. After that, participants saw the descriptions of the two stocks that they were to choose between. The information about the two stocks was ambiguous in that each of them appeared slightly more favorable on two of the four dimensions. Graphs depicting each stock's price throughout the calendar year preceding the investment period implied that the two stocks had identical rates of return for that year.

Next, participants were offered the services of a stock analyst from a well-known financial institution in connection with their investment decision. They were told that this analyst had compared a number of pairs of stocks and made a prediction as to which of the two stocks in each pair would see a greater increase in its price. In order to emphasize the usefulness of the analyst's advice, participants were also informed that the average rate of return on the stocks selected by this particular analyst was significantly greater than that of the remaining half of the stocks. They then read a characterization of the services that the analyst offered to provide – either expressing a prediction as to which stock would produce a greater return during the investment period (recommendation) or investing in the stock predicted to produce a greater return on their behalf (delegation), reflecting the experimental condition they had been assigned to. Obtaining the surrogate services was economically consequential to participants. They were informed that these services were available to them at a cost and that, if they chose to obtain them, their

ultimate payment would be reduced by 25 cents. Next, participants were asked to indicate whether they wished to (1) obtain the services of the stock analyst or (2) make the investment decision on their own. They then proceeded accordingly.

After making their investment decision, participants completed a questionnaire that included a manipulation check for type of surrogate service ("How much control do you have over your decision if you use the investment advice offered to you?" 1: "no control", 7: "a lot of control"), as well as items that assessed the trust in the analyst ("I trust in the investment advice provided by the stock analyst." 1: strongly disagree, 7: strongly agree) and the usefulness of the analyst's advice ("The investment advice provided by the stock analyst is useful." 1: strongly disagree, 7: strongly agree). Finally, participants learned the return on their investment – either $5 (for those who made the decision on their own) or $5.25 (for those who used the analyst's services) which resulted in a total payment of $9 for all participants.

Results

Manipulation and Confounding Checks. Separate 2 (motivational state) x 2 (type of surrogate service) ANOVAs were performed to examine the manipulation and confounding checks. The perceived choice items were averaged to form a single index ($\alpha = .86$). As in Nix et al.'s (1999) study, participants in the internal PLOC condition reported greater perceived choice ($M = 4.71$, $SD = 1.43$) than those in the external PLOC condition ($M = 3.13$, $SD = 1.54$; $F(1,149) = 42.54$, $p < .0001$). Moreover, participants indicated that obtaining a recommendation would allow them greater control over their decision ($M = 5.29$, $SD = 1.71$) than would delegation ($M = 3.85$, $SD = 2.00$; $F(1,149) = 23.24$, $p < .0001$). Therefore, both manipulations were successful. None of the

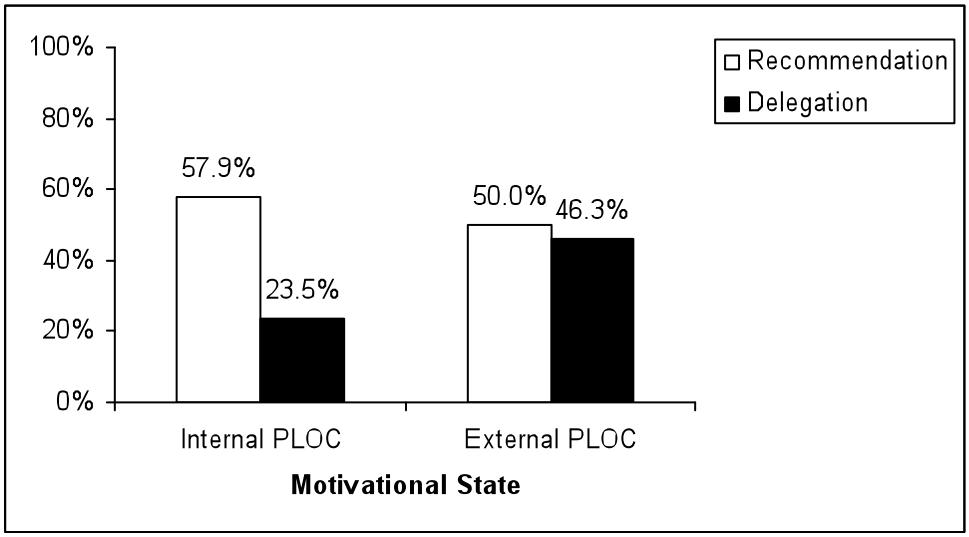
other effects in either of these ANOVAs were significant (all p values > .3). Separate 2x2 ANOVAs examining the trust in the stock analyst's advice and the perceived usefulness of the analyst's advice also did not reveal any significant effects (all p values > .1).

Relinquishment of Decision Control. The dependent variable of interest was whether participants obtained the services of the surrogate or made the investment decision on their own. This binary variable was analyzed using a logistic regression with the two manipulated factors and their interaction as independent variables. The analysis revealed a significant main effect for type of surrogate service ($\chi^2(1) = 5.75$, $p < .05$), but not for motivational state ($\chi^2(1) = 1.08$, $p > .2$). Critically, the interaction between the two factors was also significant ($\chi^2(1) = 3.88$, $p < .05$). This interaction was investigated further through analyses of simple effects. Participants in a motivation to experience an internal PLOC were significantly more likely to obtain a recommendation than they were to delegate their decision ($\chi^2(1) = 8.26$, $p < .005$), whereas those in a motivation to experience an external PLOC were equally likely to obtain the two types of surrogate services ($\chi^2(1) = .10$, $p > .7$). While the likelihood of obtaining a recommendation was not influenced by motivational state ($p > .4$), participants who approached the investment decision with an external PLOC were significantly more likely to delegate their decision to the surrogate than were those who approached it with an internal PLOC ($\chi^2(1) = 4.07$, $p < .05$). As predicted, relinquishment of decision control was significantly greater when participants possessed an external rather than an internal PLOC. These results are illustrated in Figure 2-1.

Discussion

In line with this essay's theoretical framework, the likelihood of obtaining a recommendation in connection with the investment decision was not affected by consumers' motivational state. However, as predicted, participants who approached the investment decision in a motivation to experience an external PLOC were much more likely to delegate this decision to the financial advisor than were participants who approached the same decision in a motivation to experience an internal PLOC. Therefore, the findings of Study 1 provide strong support for the notion that a key reason why consumers are reluctant to relinquish decision control is their motivation to experience an internal PLOC for their decisions.

Figure 2-1. Proportion of Participants Obtaining the Services of the Surrogate



Study 2

I propose that consumers' willingness to relinquish the control of a decision to a surrogate varies not only when consumers' PLOC is directly manipulated (as in Study 1) but also when factors that commonly arise in consumption contexts influence consumers' anticipated PLOC with the decision. The objective of Study 2 is to test the effect of one

such contextual factor: the placement of a restriction on the number of available alternatives for consumer choice. Consumers typically prefer larger assortments to smaller ones due to the greater flexibility afforded by having more alternatives provides (Kahn and Lehmann 1991). Although large assortments can reduce choice confidence and lead to choice deferral (Chernev 2003a; 2003b; Iyengar and Lepper 2000), consumers' preference for larger assortments appears to be robust, as they tend to neglect the negative consequences of choosing from large sets of alternatives (Chernev 2006). Despite consumers' desire for larger assortments, a reduction in the number of alternatives in the assortment commonly occurs due to a variety of reasons including retailers' product selections and stockouts (Broniarczyk et al. 1998; Fitzsimons 2000).

A restriction on the number of available alternatives should cause consumers to feel that their reason to choose a particular alternative is no longer based entirely on their own preferences, but affected by this restriction. Thus, an event that restricts the number of available alternatives should cause consumers' anticipated PLOC for a decision to become more external than internal. Delegating such a decision to an expert surrogate should seem more appealing to consumers because making the same decision independently would not allow them to experience an internal PLOC anyway. In other words, one of the key reasons why consumers are reluctant to relinquish the control of their decisions is their perception that they can satisfy their inherent motivation to experience an internal PLOC by making their decisions independently. The shift in anticipated PLOC for a decision from internal to external renders this reason ineffective and in turn, makes consumers more likely to relinquish decision control to an expert

surrogate. This leads to the specific prediction that imposing a restriction on the number of available alternatives *increases* consumers' willingness to relinquish decision control.

Method

Participants and Design. Seventy-eight U.S. residents (56 females, median age: 40 years) were recruited from a university-run internet-based research panel. They were paid $3 for completing the study. Participants were randomly assigned to one of two conditions in a between-subjects design – the assortment of alternatives they were to choose from was either restricted (relative to an initially presented, larger assortment) or not.

Procedure. Participants completed the study via the internet using their own computers. They were instructed to imagine that they had purchased a new house with a white exterior, and that they wanted to have the house re-painted before moving in as the original paint was in poor condition. Participants were then presented with a set of exterior colors that were approved by the neighborhood association. (A rectangular color sample was displayed for each color.) For participants in the *restricted* assortment condition, this approved set consisted of 25 colors. It was composed of five subsets, each of which included five different colors. Following past research that manipulated assortment size by using subsets of a large assortment (Iyengar and Lepper 2000), none of the subsets included two colors that were highly similar to each other. Participants in the *unchanged* assortment condition were informed that the set of colors that were approved by the neighborhood association consisted of five colors, and they were presented with only one of the five subsets, selected at random for each participant in this condition.

After reviewing the approved set of paint colors, participants were informed that the neighborhood association had a contract with a landscape architect whose role it was to assist homeowners with decisions regarding the appearance of their house and yard. They were also told that this architect was an expert in selecting exterior colors that effectively accentuate the architectural features of a home, and that he would be available to help them with their paint color decision at no cost to them (under the association contract).

The manipulation was implemented at this point. Participants in the *restricted* assortment condition were informed that the neighborhood association had just passed a new regulation according to which there were now only five approved exterior colors, and they were presented with these five colors. This set was one of the five subsets of the initial 25 colors, selected at random for each participant in this condition. In the unchanged assortment condition, the five originally presented colors were displayed again at this point. Thus, all participants ultimately were able to choose among five available colors. However, I manipulated whether that set was the same as the original set (unchanged assortment condition) or a subset of an initially presented set of 25 colors, some of which had become unavailable due to an external event (restricted assortment condition).

Next, participants were informed that they would be able to get one of two types of assistance from the landscape architect in connection with their decision – they could either (1) obtain a recommendation as to which color the architect deems most appropriate, but retain control of the final decision, or (2) delegate the decision to the architect, who would then select the color he deems most appropriate on their behalf. The

key dependent measure followed. Participants were asked to indicate which of these two types of assistance they preferred to obtain in connection with their color decision on an 11-point rating scale (-5: strongly prefer recommendation, +5: strongly prefer delegation).

Finally, participants were asked to indicate which color they would choose if they made the decision independently, and they then responded to a scale measuring perceived choice with respect to this color decision (e.g., "I believe I had some choice about making this color decision.", 1: not at all true, 4: somewhat true, 7: very true), which was adapted to this study from the scale used in Study 1. The purpose of measuring this was to enable us to determine whether the manipulation of assortment restriction effectively created a situation that shifted the PLOC for the color decision from internal to external.

Results

Manipulation and Confounding Checks. The perceived choice items were averaged to form a single index ($\alpha = .83$). Although participants in both conditions ultimately chose from a set of five colors, perceived choice was significantly greater ($M = 4.69$, $SD = 1.45$) in the unchanged assortment size condition than it was in the restricted assortment size condition ($M = 4.03$, $SD = 1.33$; $t(76) = 2.10$, $p < .04$). Perceived choice with respect to engaging in an activity decreases in the presence of contextual factors that cause an external PLOC for that activity (Deci et al. 1994; Ryan, Koestner, and Deci 1991). This indicates that the manipulation designed to induce an external PLOC (via a restriction of the initial set of available alternatives) was successful. Moreover, there was no confound between the frequency with which each of the five color subsets was (randomly) selected and experimental condition ($\chi^2(4) = 0.13$, $p > .99$).

Thus, participants in the two conditions were equally likely to be presented with a given subset of five colors.

Relinquishment of Decision Control. As predicted, participants in the restricted assortment condition were significantly more inclined – i.e., less reluctant – to delegate their decision to the landscape architect (M = -1.56, SD = 3.82) than those in the unchanged assortment condition (M = -3.28, SD = 2.43; $t(76) = 2.37$, $p < .03$). Converting each participant's response, which was obtained using an 11-point scale, to a discrete preference for delegating the decision (as indicated by a response above the scale midpoint), as opposed to merely obtaining a recommendation in connection with it, provides an additional perspective on this finding. An analysis of this binary variable reveals that a significantly greater proportion of participants preferred to delegate the decision in the restricted assortment condition (27.8 percent) than in the unchanged assortment condition (8.1 percent; $\chi^2(1) = 4.82$, $p < .03$), in line with my prediction.

Discussion

The findings of Study 2 provide strong support for the proposition that consumers' willingness to relinquish the control of a decision to a surrogate increases when a contextual factor undermines their ability to experience an internal PLOC for that decision. The results suggest that a restriction of the set of available alternatives is one factor of this type. According to the theoretical framework developed in this essay, experiencing such a restriction shifts the anticipated PLOC for the decision from internal to external, thus reducing consumers' reluctance to relinquish decision control to a surrogate.

On the surface, the findings of this study might appear inconsistent with prior research suggesting that being presented with larger assortments can weaken consumers' motivation to make a choice (Iyengar and Lepper 2000). However, the present study differs from this prior work in one important aspect. In Iyengar and Lepper's paradigm, once a participant had been assigned to a particular assortment size, the latter remained unchanged. By contrast, the manipulation used in this study is whether an (ultimately) available set of alternatives arises through the restriction of an (initially presented) larger set or not. In the condition where the reduction of the assortment occurred, participants were provided with a rationale for why that was the case. Thus, the restriction of the set of alternatives was much more salient in this study than it was in (the small assortment conditions of) Iyengar and Lepper's research. In fact, the theoretical framework developed in this essay suggests that the salience of an external factor that restricts the set of available alternatives causes an external PLOC for the decision, thus increasing consumers' willingness to relinquish decision control.

Study 3

The purpose of Study 3 is to provide further support for the proposition that consumers become more likely to relinquish the control of a decision to a surrogate under conditions that shift their anticipated PLOC for that decision from internal to external. Contextual factors conducive to the experience of an external PLOC for behaviors are those that pressure humans towards specific outcomes (Deci and Ryan 1987). For instance, Moller et al. (2006) induced the experience of an external PLOC for a decision by informing individuals that they could freely choose one of two activities but then encouraging them choose a particular one of these (based on the bogus reason that it

would help the study because enough participants had already chosen the other activity), while emphasizing that the decision was entirely up to them. Various post-decision measures showed that participants who were pushed towards choosing a particular activity experienced an external PLOC for their decision even though they were (nominally) free to choose either of the activities (Moller et al. 2006).

Pressure towards engaging in a particular behavior can also be induced by making rewards conditional on that behavior. For instance, numerous studies have shown that an extrinsic reward (e.g., money) for performing a task causes an external PLOC and, thus, reduces subsequent intrinsic motivation with respect to that task (see Deci et al. 1999a). Building on this prior work, I predicted that consumers would experience an external PLOC for a decision in the presence of a reward that is conditional on their choosing one particular alternative. That is, the presence of a reward that pressures consumers to choose a particular alternative should cause their anticipated PLOC for that decision to become more external. Critically, according to the theoretical framework, such a shift in consumers' anticipated PLOC for the decision caused by the reward should make them more willing to relinquish control of it to a surrogate.

Method

Participants and Design. Sixty-five U.S. residents (45 females, median age: 43 years) were recruited from a university-run internet-based research panel. They were paid $3 for completing the study. Participants were randomly assigned to one of two conditions in a between-subjects design – a reward contingent on choice of a particular alternative was either present or absent.

Procedure. Participants completed the study via the internet using their own computers. They were informed that they would read a scenario describing a specific situation and then answer some questions about how they would behave in that situation. The scenario stated that there was a deadly flu pandemic, that a vaccine for this strain of the flu had recently become available, and that they visited their physician to discuss the possibility of getting this vaccine. The scenario also indicated that the physician explained that the vaccine significantly reduced the risk of catching the flu, but that it had side effects such as one-in-a-million risk of permanent neurological damage.

In the *reward* condition, participants were told that they had just been offered an attractive new job, and that their income would increase by 40 percent if they accepted it. However, this offer was conditional on their getting the flu vaccine because the job required the employee to frequently interact with large numbers of people. The purpose of this manipulation was to create the perception that the reason to obtain the vaccine would be more external (getting a high-paying job) rather than predominantly internal (e.g., protecting one's health). In the *no-reward* condition, the job offer was not mentioned in the scenario, and participants were thus not provided with an explicit reason for getting the vaccine. The scenario did, however, also indicate that their daily routines involved frequent interaction with a large numbers of people – to ensure consistency across conditions.

Next, participants in both conditions were informed that they could get help from their physician in connection with their vaccination decision. In particular, they had the option to relinquish the control of this decision to the physician, who in that case would decide on their behalf whether they get vaccinated or not. This was followed by the key

dependent measure. Participants were asked to indicate how likely they were to delegate their vaccination decision to their physician on a 9-point scale (1: not at all likely, 5: moderately likely, 9: very likely). They were also asked how much control they wanted their physician to have over their vaccination decision (1: no control, 9: complete control).

Finally, participants completed a questionnaire that included measures of the extent to which they felt required to get the vaccine (1: not at all, 9: very much) and of the extent to which they felt pressured to get it (1: not at all, 9: very much). They were also asked to indicate how likely they thought they were to catch the flu if they did not get vaccinated (1: not at all likely, 9: very likely), how likely they thought the physician was to choose the vaccination option on their behalf (1: not at all likely, 9: very likely), how important they thought it was to be protected against the flu (1: not at all important, 9: very important), and how much they trusted their physician (1: not at all, 9: very much).

Results

Manipulation and Confounding Checks. Conditions that cause an external PLOC for a behavior are those that lead individuals who perform that behavior to feel pressured (e.g., Ryan 1982; Ryan, Mims, and Koestner 1983). Participants in the reward condition felt required to get the vaccine to a greater extent ($M = 7.09$, $SD = 2.21$) than those in the other condition ($M = 4.70$, $SD = 2.52$; $t(63) = 4.08$, $p < .0001$), and they also felt more pressured towards getting the vaccine ($M = 6.47$, $SD = 2.64$) than that when no reward was present ($M = 5.03$, $SD = 2.69$; $t(63) = 2.18$, $p < .04$). Thus, as intended, the presence

of the reward caused participants to feel less free to decide as they wished, thereby creating a context conducive to the experience of an external PLOC for the decision.

There were no differences between conditions in terms of how likely participants thought they were to catch the flu if not vaccinated ($p > .77$), how likely they thought the physician was to choose for them to get vaccinated ($p > .91$), the importance of being protected against the flu ($p > .41$), and trust in the physician ($p > .30$), indicating that the reward manipulation was not confounded with any of these variables.

Relinquishment of Decision Control. As predicted, participants in the reward condition were significantly more inclined to let the physician decide on their behalf whether or not they got vaccinated ($M = 5.59$, $SD = 2.71$) than those in the no reward condition ($M = 4.24$, $SD = 2.46$; $t(63) = 2.11$, $p < .04$). Moreover, the amount of control participants wanted the physician to have over the vaccination decision was significantly greater in the presence of a reward ($M = 5.22$, $SD = 2.54$) than when there was no such reward ($M = 3.91$, $SD = 2.04$; $t(63) = 2.30$, $p < .03$), and this corroborates the primary result.

Discussion

The findings of Study 3 provide further support for the theoretical framework and, in particular, for the proposition that consumers' inclination to relinquish the control of a decision to a surrogate increases when the anticipated PLOC with respect to that decision shifts from internal to external. The presence of a reward that was conditional on the choice of one particular alternative (or course of action) undermined consumers' expectation to experience an internal PLOC with respect to their decision. In line with the

results of Study 2, this shift in anticipated PLOC caused consumers to become more likely to relinquish the control of their decision to an expert surrogate.

General Discussion

Contributions and Theoretical Implications

The literature on consumer surrogate usage (Forsythe et al. 1990; Hollander and Rassuli 1999; Solomon 1986, 1987) has neglected to investigate the psychological processes that underlie consumers' decisions to relinquish control to surrogates. The present research contributes to this literature by introducing and testing a theoretical framework to explain consumers' reluctance to relinquish decision control and to identify the types of contexts in which consumers are more willing to relinquish the control of their decisions to surrogates. The results of three studies provide converging evidence that the perceived locus of causality (PLOC) that consumers (anticipate to) experience in connection with a decision is a key determinant of their willingness to relinquish decision control to expert surrogates.

Weakening their inherent desire to experience an internal PLOC with respect to their actions reduces consumers' reluctance to relinquish the control of their decision to a surrogate (Study 1). This demonstrates that the motivation to experience an internal PLOC for decisions is an important psychological force that influences whether consumers relinquish control of a particular decision. Shifts in the anticipated PLOC that are caused by contextual factors associated with a decision also influence consumers' decisions to relinquish control to surrogates. For instance, the present research shows that consumers become more willing to relinquish decision control when they experience a restriction of the set of available alternatives (Study 2) and when a reward pushes them

towards a particular alternative (Study 3). Thus, contexts that cause consumers to attribute their reason for making a decision to an external factor rather than to their own preference increase consumers' willingness to relinquish the control of that decision to a surrogate.

Prior research on control relinquishment (Miller et al. 1985, Strube, Berry, and Moergen 1985; Strube and Werner 1984; 1985) has investigated people's decision to allow a (more competent) task partner to perform a reaction time task. The present work contributes to this body of literature by being the first to examine the relinquishment of *decision* control. Moreover, while prior research in this domain has primarily focused on the effects of various chronic individual differences on relinquishment of control (e.g., Burger and Cooper 1979; Burger, McWard, and LaTorre 1989; Miller et al. 1985), ours is the first to propose and empirically test a theoretical explanation for relinquishment of control based on self-determination theory (Deci and Ryan 1991; 2000).

The present research also makes an important contribution to the literature on consumers' desire for freedom of choice. While prior work in this area has identified psychological reactance (Brehm 1966) as an important cause of consumers' resistance to marketing actions designed to influence their choices (Fitzsimons and Lehmann 2004, Kivetz 2005), the effects of PLOC on consumers' desire for choice freedom has received limited attention (Botti et al. 2009). The present essay proposes a broad theoretical framework that gives PLOC a central role in consumers' decisions to relinquish their freedom to choose. The results show that this theoretical framework can be used to predict under what circumstances consumers are more willing to relinquish their freedom

of choice, with a shift in the anticipated PLOC for a decision from internal to external being the pivotal event (Studies 2 and 3).

Directions for Future Research

Identifying the role that PLOC plays in determining how consumers respond to marketers' attempts to influence their behavior might spark future research in several areas. For instance, research by Rosen and Olshavsky (1987) has revealed that consumers sometimes use a strategy of "subcontracted decision making." When engaging in such subcontracting, consumers may purchase a recommended product without actually acquiring any information about it. This should cause consumers to experience an external PLOC for the decision because the way in which the product is chosen originates from an external force. Interestingly, Rosen and Olshavsky (1987) found no evidence of consumer subcontracting in their empirical study. The theory developed in this essay suggests that this may have been the case because subcontracted decision making contradicts consumers' inherent motivation to experience an internal PLOC for their decisions.

The present research also has implications for the study of consumer response to systems that control the flow of product information. Ariely (2000) has shown that consumers tend to prefer information systems that allow them a higher degree of control over the flow of information and stressed the need for future work investigating the psychological processes that underlie the preference for highly interactive information systems. The theoretical framework of this essay suggests that consumers who have high (low) control over the flow of information tend to experience an internal (external) PLOC. Consumers' desire to experience an internal PLOC in connection with their

acquisition of information can explain the preference for information systems that allow a high degree of control.

Ariely (2000) also suggested that the question of "whether information control would increase consumers' motivation to search for and understand information" (p. 246) is an important one. Prior research has shown that contextual factors that shift the PLOC from internal to external tend to reduce intrinsic motivation (Deci and Ryan 1985). Lack of control over the flow of information should shift the PLOC for consumers' access to information from internal to external. Such a shift should reduce intrinsic motivation for the task. This decrease in intrinsic motivation may, in turn, reduce consumers' desire to process the information presented. Indeed, Ryan (1982) showed that individuals superficially complied with controls, but reacted against them by expending less effort and performing poorly. Therefore, reduced memory accuracy under low information control (Ariely 2000; Experiment 5) can be due, at least in part, to lower intrinsic motivation for the task. Future research in this area is clearly warranted.

In this essay, I have introduced a theoretical framework that indentifies consumers' inherent motivation to experience an internal PLOC for their decisions as a key reason why they are reluctant to relinquish the control of their decisions to expert surrogates. Evidence from three studies provides strong support for this framework, and it highlights sets of circumstances that cause consumers' willingness to relinquish decision control to surrogates to increase. The present research not only sheds light on the psychological processes that underlie consumers' decisions to relinquish control to expert surrogates, but it also lays the theoretical foundation for future research on consumer

response to marketing actions that might cause consumers to experience an external PLOC in connection with their choices and activities.

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III. ESSAY 2: SELF-REGULATORY STRENGTH AND CONSUMERS' RELINQUISHMENT OF DECISION CONTROL: WHEN LESS EFFORTFUL DECISIONS ARE MORE DEPLETING

Consumers may obtain assistance from surrogates (e.g., physicians, financial advisors) in connection with a variety of decisions. In some cases, a surrogate assumes complete control over the decision, which is typically referred to as "decision delegation" (see Hollander and Rassuli 1999). Consumers' inclination to relinquish control to surrogates is correlated with various demographic and psychographic factors (Forsythe, Butler, and Schaefer 1990; Solomon 1987). Although it has been suggested that the psychological processes driving consumers' willingness to relinquish decision control to surrogates should be better understood (see, e.g., Solomon 1986), research on this topic has been limited.

Work on selection of information sources has focused on how consumers evaluate and select agents that provide recommendations (Gershoff, Broniarczyk, and West 2001; Gershoff, Mukherjee, and Mukhopadhyay 2003, 2007), but it has not investigated the delegation of decisions to such agents. Research on consumer response to the forced relinquishment of decision control suggests that, when choosing among desirable alternatives, consumers are less satisfied with their decisions when their freedom to choose has been removed than when they are allowed to choose freely (Botti and Iyengar 2004), and that this effect is moderated by the differentiability of the alternatives (Botti and McGill 2006).

Based on the self-regulatory strength model (Baumeister et al. 1998) and prior work on threats to self-esteem (e.g., Steele 1988; Steele and Liu 1983), I propose that

delegating a decision to a surrogate poses a self-esteem threat, and that coping with this threat depletes consumers' limited self-regulatory resources (i.e., impairs their ability to exercise self-control) more than making the same decision independently. The findings of four studies provide clear support for these hypotheses – delegating a decision to a surrogate leads to lower performance on a subsequent task that requires self-control than making the same decision independently (Study 1), affirmation of individuals' beliefs in free will eliminates the resource depletion caused by decision delegation (Study 2), providing a reminder of a decision that was delegated to someone else in the past depletes more resources than remembering a decision that was made independently (Studies 3 and 4).

The present research contributes to the literature on surrogate usage by examining the psychological processes underlying consumers' decisions to relinquish control to surrogates. In addition, it advances the literature on freedom of choice by showing that an important reason why consumers desire to have freedom of choice – and thus might be reluctant to delegate their decisions to surrogates – is that relinquishing this freedom depletes their self-regulatory resources and impairs their ability to exert self-control. Finally, the present research also contributes to the psychology literature on the relinquishment of control (e.g., Strube and Werner 1985) in that it is the first to investigate this phenomenon using the self-regulatory strength model as a theoretical framework.

Theoretical Framework

Previous research suggests that consumers place a high value on their freedom to choose. They typically prefer making their own choices over having "choices" externally

imposed on them (Botti and Iyengar 2004; Botti and McGill 2006) and this preference for choosing is robust to variations in choice context (Botti and McGill 2006). Consumers tend to switch stores when their freedom to choose is threatened by the stockout of an attractive product (Fitzsimons 2000). Unsolicited product recommendations cause consumers to assert their freedom of choice by going against these recommendations (Fitzsimons and Lehmann 2004). Consumers avoid choosing rewards that cause them to feel less autonomous in their decision making (Kivetz 2005). Having to choose from an externally determined set of alternatives causes greater conflict and discomfort than being free to delay choice and look for other alternatives (Dhar and Simonson 2003).

Why do consumers place such a high value on freedom of choice? Feeling capable of free choice is an integral component of people's self-concept (Steele 1988). Individuals possess a strong belief in free will, which allows them to maintain the perception that they are able to exercise free choice (Baumeister et al. 2008). Therefore, when approaching a decision, people typically presume that they have the freedom to make this decision as they wish (Clee and Wicklund 1980). Moreover, autonomy – i.e., the desire to see oneself as the source of one's actions – is a basic psychological need that humans are inherently motivated to satisfy (Deci and Ryan 1991). In sum, the prior literature suggests that individuals have a strong inclination to see themselves as agents who are capable of free choice and seek opportunities to maintain this self-image.

The present research investigates the effects of a self-esteem threat posed by an action (i.e., decision delegation) that violates this self-image. While some have argued that self-esteem serves to assuage the anxiety that results from humans' awareness of their inevitable death (Pyszczynski et al. 2004), others have suggested that self-esteem

serves as a monitor of the extent to which humans are viewed as valuable and important by social groups (Leary and Baumeister 2000). Although a strong motivation to maintain and defend high self-esteem prevails among humans (e.g., Tesser 1988), it has been shown that various factors such as social rejection (e.g., Leary et al. 1995) and negative social identities (e.g., Ethier and Deaux 1994) tend to reduce self-esteem.

Delegation of consumer decisions – e.g., to surrogates who make decisions on behalf of their clients – violates consumers' belief in themselves as free agents. The inconsistency between one's self-concept and a behavior that violates this self-concept causes psychological discomfort which motivates one either to change one's personal attitudes or to distort one's interpretation of the situation (Aronson 1992). Such internal inconsistencies also threaten one's self-esteem by making one feel inadequate according to essential components of one's self-concept (Steele 1988; Steele and Liu 1983). For instance, consumers who relinquish their freedom to choose experience an internal inconsistency between their view of themselves as free decision makers and their behavior of relinquishing decision control. This inconsistency poses a strong threat to their self-esteem by making them feel inadequate according to their personal expectations from themselves to act as free agents.

In the present research, I investigate an important consequence of experiencing such a threat to self-esteem. It has been suggested that defense mechanisms activated by self-esteem threats use resources of the self that could otherwise be employed to achieve other, unrelated tasks (Vohs and Baumeister 2004; Schmeichel and Vohs 2009). In support of this, a threat to self-esteem has been shown to impair recall by creating interference (Holmes and Schallow 1969) and to cause dieters' failure to inhibit their

intake of high-calorie food (Heatherton, Herman, and Polivy 1991). Thinking about their inevitable death (i.e., a form of self-esteem threat; Pyszczynski et al. 2004) decreased participants' performance in the Stroop color-word interference task (Gailliot, Schmeichel, and Baumeister 2006). Building on these previous findings and on the self-regulatory strength model (Baumeister et al. 1998), I propose that the self-esteem threat caused by decision delegation depletes consumers' self-regulatory resources.

According to the self-regulatory strength model (Baumeister et al. 1998), individuals have limited self-regulatory resources that are subject to depletion by effortful self-regulation. In turn, the depletion of these resources impairs performance in a subsequent task that requires self-control. For instance, in a study by Muraven, Tice, and Baumeister (1998), participants who were instructed to regulate their emotional responses while watching a movie found it more effortful to watch the movie than did those who received no such instructions. In a subsequent task (squeezing a handgrip), individuals who had been asked to regulate their emotions were less able to exercise self-control than those who had not. In another study, Vohs, Baumeister, and Ciarocco (2005) found that effortful self-presentation (presenting oneself boastfully to a friend) depleted self-regulatory resources more than did less effortful self-presentation (presenting oneself modestly to a friend). In the present research, I identify a class of behaviors for which this relationship between effort and resource depletion is *reversed*. In particular, I show that, even though delegating a decision to a competent surrogate requires less decision making effort than making the decision independently, it actually results in *greater* depletion of self-regulatory resources.

Making choices between available alternatives is an effortful activity that depletes self-regulatory resources (Baumeister et al. 1998; Vohs et al. 2008). While such resource depletion impairs performance in higher-order cognitive tasks that require effort, it tends not to influence performance in lower-order cognitive tasks that are automatic (Schmeichel, Vohs, and Baumeister 2003). In a similar vein, resource depletion influences consumer decisions through reduced engagement in effortful cognitive processes and increased reliance on intuition (Pocheptsova et al. 2009). Moreover, it has been shown that making a series of decisions tends to deplete self-regulatory resources (Vohs et al. 2008). Finally, Moller et al. (2006) found that participants who were urged to choose a particular alternative showed less persistence on subsequent tasks that required self-regulatory resources than those who were instructed to choose any alternative they wished. Although the latter study suggests that decision makers may experience less resource depletion from making decisions when they feel more autonomous, the psychological process underlying this effect has not been examined to date.

I propose that the resource depletion caused by decreased feelings of decision autonomy is due to the use of self-regulatory resources to cope with the self-esteem threat posed by the absence of decision control. I compare the self-regulatory resource depletion resulting from delegating a decision (i.e., lack of autonomy) to that caused by making the decision independently. People are motivated to perceive themselves as "capable of free choice" (Steele 1988, p. 262). Violation of this perception imposes a threat to one's self-esteem by making one feel inadequate and/or lacking integrity (Steele 1988). Such threats activate an intense cognitive activity composed of explanations and rationalizations aimed at ameliorating the negative implications to self (Steele 1988). Developing such

explanations and/or rationalizations may require the suppression of undesirable thoughts and the development of counter arguments both of which tap into the limited resources for self-regulation (Muraven et al. 1998, Burkley 2008). For example, being targeted by a stereotype threat depletes self-regulatory resources through increasing efforts to control undesirable thoughts and emotions aroused by this threat (Johns, Inzlicht, and Schmader 2008). Although making a decision independently requires cognitive/emotional effort which also uses one's self-regulatory resources (Baumeister et al. 1998, Vohs et al. 2008), I propose that the amount of self-regulatory resources required by the cognitive coping mechanisms activated by delegating a decision surpasses the amount of self-regulatory resources required by making the same decision independently.

H1: Delegating a decision to a surrogate depletes more self-regulatory resources than making the decision independently.

Prior research has shown that affirming a valued aspect of the self reduces defensive coping with threats to self-esteem (McQueen and Klein 2006, Steele 1988). For instance, value affirmation weakens the effect of control deprivation on people's tendency to make extreme attributions aimed at increasing their perceived control over the environment (Liu and Steele 1986). Also, affirming an important personal value increases the acceptance of self-threatening information by increasing warm feelings toward others (Crocker, Niiya and Mischkowski 2008) and eliminates the tendency to defend one's worldview following a reminder of one's mortality by reducing the accessibility of death-related thoughts (Schmeichel and Martens 2005). Moreover, Schmeichel and Vohs (2009) have shown that self-affirmation enhances self-control when self-regulatory resources are depleted. Using a similar logic, if resource depletion

resulting from decision delegation is caused by a threat to our self-image as free agents, affirming our belief in ourselves as free agents should facilitate coping with the threat posed by decision delegation. Consequently, it should be possible to diminish the extent of resource depletion resulting from decision delegation through an intervention that leads individuals to affirm their belief in themselves as free agents.

H2: Affirming one's belief in oneself as a free agent dampens the resource depleting impact of delegating a decision (vs. making the decision independently).

Reminding individuals of actions they undertook in the past can create psychological responses similar to those experienced at the time. For instance, it has been shown that cognitive dissonance effects can be reinstated in this manner (Steele and Liu 1983; Higgins, Rhodewalt, and Zanna 1979). Remembering a decision that was delegated in the past should increase the accessibility of cognitions associated with one's inability to act independently. The fact that these cognitions are inconsistent with one's self-view as a free agent should cause a threat to self-esteem. By contrast, remembering a past decision that was made independently should not activate cognitions inconsistent with one's self-view as a free agent and should, therefore, not pose a self-esteem threat. Thus, based on prior work suggesting that coping with self-esteem threats depletes self-regulatory resources (e.g., Schmeichel and Martens 2005, Schmeichel and Vohs 2009), I predict that the resource depleting effect of decision delegation (relative to independent decision making) can be recreated by simply reminding consumers of a decision that they delegated in the past.

H3: Remembering a decision that one delegated in the past depletes self-regulatory resources more than remembering an independently made decision.

Testing hypotheses H1 to H2 entails the random assignment of participants to either a delegated decision condition or an independent decision condition. In order to prevent a selection bias, it is critical that all participants who are randomly assigned to the delegated decision condition are required to in fact delegate their decisions (to a surrogate) – and that is done in the first two studies. This restriction is an obstacle to testing whether voluntary delegation also depletes self-regulatory resources. Therefore, this restriction is relaxed in Studies 3 and 4, where participants are asked to contemplate past decisions that they either delegated or made independently (to test H3). I propose that both forced and voluntary delegation pose a threat to self-esteem as both behaviors activate cognitions that are inconsistent with consumers' self-image as free agents. Therefore, I expect that both remembering a forcibly delegated decision and remembering one that was delegated voluntarily depletes more self-regulatory resources than remembering a decision that was made independently. I test this prediction by manipulating whether participants are asked to remember decisions that they were required to delegate or decisions that they chose to delegate.

Study 1

The objective of this study is to test the hypothesis that, all else being equal, delegating a decision to a surrogate depletes more self-regulatory resources than making the same decision independently (H1).

Method

Participants and Design. Fifty-three undergraduate students (35 males and 18 females) participated in the study for course credit. They were randomly assigned to one of two decision mode conditions for selecting a hotel for a vacation – choosing one of the available hotels on their own ("independent decision") or having a competent surrogate select one on their behalf ("delegation").

Procedure. Participants completed the study on computers in a research lab. To measure the availability of self-regulatory resources, participants were instructed to press the down-arrow key on a computer keyboard with their right index finger, to keep their finger on that key for as long as they could (see Appendix 3-1). This is similar to the handgrip measure used in prior research on self-regulatory resources (e.g., Vohs et al. 2005) in that it requires mental and physical self-control. Participants performed the key pressing task twice, once before and once after the decision task. The decrease in key pressing time between trials is a measure of the amount of resource depletion caused by the decision.

Upon completion of the "before" trial of the key pressing task, participants were directed to the decision task. Participants were asked to imagine that they were choosing a hotel for a one-week vacation in the Bahamas. They then read the descriptions of two available hotels (see Appendix 3-2). The information was ambiguous in that each hotel had an equal number of advantages and disadvantages relative to the other. Once participants had examined the descriptions of both hotels, the experimental manipulation was implemented.

Participants in the independent decision condition chose whichever hotel they preferred. By contrast, those in the delegation condition were told that they would be provided with assistance from an experienced travel agent who would select a hotel on their behalf. More specifically, participants in the delegation condition learned that the travel agent had actually compared the two hotels in a recent review article published in a travel magazine, and reached the conclusion that one of them was clearly better than the other. They were then informed which of the two hotels the agent chose on their behalf. (In fact, one of the hotels was selected at random for each participant in this condition.)

In both conditions, participants were then presented with what was described as traveler ratings of the two hotels, reflecting the overall satisfaction of a large number of previous guests (on a scale from 1 = "not at all satisfied" to 5 = "very satisfied"). All participants were told that the average satisfaction rating of the hotel that they would be staying at was 4.5, whereas that of the other hotel was 4.2. This was done to ensure that participants in both conditions experienced the same decision outcome. After that, affect was measured using the PANAS scale (Watson, Clark, and Tellegen 1988).

Participants then performed the "after" trial of the key pressing task. Following that, they responded to a questionnaire that included a measure of their satisfaction with the hotel decision ("How satisfied are you with your hotel decision?"; 0 = "not at all satisfied" to 10 = "very satisfied"), measures that assessed involvement of self in the decision ("To what extent were you actively involved in making the hotel decision?"; 0 = "not at all actively involved" to 10 = "very actively involved") and decision effort ("How much effort did you spend in order to make the hotel decision?"; 0 = "no effort" to 10 = "a lot of effort"), as well as demographics questions.

Results

Preliminary Analyses. As expected, involvement of self in the decision was greater in the independent decision condition ($M = 7.24$, $SD = 3.79$) than in the delegation condition ($M = 1.75$, $SD = 3.29$; $t(51) = 7.64$, $p < .0001$), and participants in the independent decision condition also reported having spent more effort to make the decision ($M = 5.86$, $SD = 2.61$) than those in the delegation condition ($M = 3.17$, $SD = 2.87$; $t(51) = 3.57$, $p < .0001$). Neither positive affect ($p > .9$) nor negative affect ($p > .9$), measured immediately after the decision, varied by condition, ruling out the possibility that any resource-depleting effect of decision mode might have been driven by differential affective responses. The choice shares of the two hotels were evenly split both in the independent decision condition (38% Island Breeze, 62% Ocean Dream, $\chi^2(1,29) = 1.69$, $p > .19$) and in the delegation condition (42% Island Breeze, 58% Ocean Dream, $\chi^2(1,24) = 0.67$, $p > .41$). Moreover, the distribution of hotel choices did not differ significantly between conditions ($\chi^2(1,53) = 0.08$, $p > .78$). Therefore, participants on average experienced the same choices across conditions.

Depletion of Self-Regulatory Resources. The time participants spent pressing the key was analyzed using a mixed ANOVA with decision mode as a between-subjects variable and trial (before vs. after the decision task) as a within-subject variable. Although I used the log-transformed durations in the analyses, I present non-transformed means for ease of interpretation. Overall, the key pressing time was shorter after the decision task than prior to it ($M_{T1} = 135.66$s, $M_{T2} = 112.68$s; $F(1,51) = 6.66$, $p < .02$). A confounding check was negative in that it revealed that there was no difference in key pressing time on the first trial between the two decision mode conditions ($p > .6$). My

hypothesis was that the amount of resource depletion – measured as the decrease in key pressing time between the two trials – would be greater in the delegation condition than in the independent decision condition (H1). The critical test of this hypothesis is the interaction effect between trial and decision mode, which turned out to be significant ($F(1,51) = 4.03$, $p < .05$). As predicted, decision delegation led to a substantial decrease in key pressing time ($M_{T1\text{-}T2} = 52.34$s; $t(23) = 2.74$, $p < .02$), whereas making the decision independently had no effect on this measure ($p > .6$).

Satisfaction with the Decision. A possible alternative account of this result might be that having to delegate their decision (e.g., not being able to choose the option that participants would choose if they made the decision independently) decreased participants' satisfaction with the decision and that this dissatisfaction led to less persistence on the key pressing task. I re-ran the analysis, this time controlling for participants' satisfaction with their decision. First, in line with the findings of prior research (e.g., Botti and Iyengar 2004), participants who had to delegate their decision ($M = 6.96$, $SD = 2.74$) were less satisfied with it than those who made it independently ($M = 8.48$, $SD = 1.38$; $t(51) = 2.62$, $p < .02$). Moreover, when controlling for satisfaction with the decision in the mixed ANOVA, the interaction between trial and decision mode is still significant ($F(1,50) = 4.56$, $p < .04$), whereas the interaction between trial and satisfaction is not ($p > .4$). Therefore, this alternative account is not supported.

Discussion

Although participants in the delegation condition spent less effort on the decision than those who made the decision on their own, resource depletion was greater in the delegation condition than in the independent decision condition. The results of Study 1

thus provide clear support for the hypothesis that, relative to making a decision independently (i.e., without assistance), relinquishing the control over that decision to a surrogate depletes consumers' limited self-regulatory resources and impairs their subsequent ability to exercise self-control.

Study 2

The primary objective of Study 2 is to test the hypothesis that affirming the belief in oneself as a free agent reduces the resource depletion caused by decision delegation (H2). An additional objective of this study is to rule out an alternative explanation based on reactance theory (Brehm 1966). Consumers whose freedom to choose has been removed may experience psychological reactance that leads them to regain their sense of freedom by refusing to submit to restrictive requirements of self-control (e.g., refusing to withhold from eating a dessert that is bad for their health). Affirming a belief in free will should increase the propensity to experience psychological reactance through increasing the perceived importance of the freedom to choose. If the lack of self-control after decision delegation were driven by psychological reactance, self-control in the delegation condition should be weaker among participants who affirmed their belief in free will than that among those who did not.

Method

Participants and Design. Ninety-eight residents of four English speaking countries (Canada, the UK, Australia, and New Zealand) were recruited using a university-run online participant panel (58 females, 40 males, median age = 38.5). They received a payment of $4 (US). Participants were randomly assigned to the cells of a 2

decision mode (independent vs. delegation) x 2 affirmation of self as a free agent (yes vs. no) between-subjects design.

Procedure. Participants completed the study via the internet using their personal computers. They were informed that they would participate in three unrelated studies. The first part manipulated affirmation of self as a free agent. Participants read and reflected on the meaning of 15 sentences. Next, they were asked what the overarching theme of the sentences was, and they typed their answers to this question in a text box. Participants in the affirmation condition read statements that affirm the belief in free will (e.g., "I demonstrate my free will every day when I make decisions.") whereas participants in the no affirmation condition read neutral statements (e.g., "Many of the mountain peaks in the Rockies are over 14,000 feet high."). The sentences were identical to those used by Vohs and Schooler (2008).

The second part manipulated decision mode. Participants were asked to imagine that they had a wrist injury and that they visited a physician who was a specialist on joint injuries. Participants were asked to imagine that the physician told them that a cyst had formed on their wrist, and that this could be treated either by taking a drug or through surgery. The risks and benefits of each treatment option were described to participants on separate screens. The order of presentation was counterbalanced. After that, a table summarizing the information about both options was presented (see Appendix 3-3). The display position (left vs. right) of the treatment options in the table was counterbalanced. Participants in the independent condition chose which treatment they would receive, whereas those in the delegation condition were asked to imagine that they decided to let the physician choose one of the treatment options on their behalf (see Appendix 3-4). The

physician's treatment choice in the delegation condition was determined using a yoking design. Whenever possible (i.e., when the number of participants in the independent decision condition who had completed their treatment decision exceeded the number of participants in the delegation condition whose choices had already been yoked), the physician's choice for a given participant in the delegation condition was yoked to the treatment choice of the participant in the independent condition next in line for yoking. Otherwise, the physician's treatment choice for the participant in the delegation condition was determined at random. Using this method, 96% of the physician's treatment choices were determined by yoking. After being provided with a table that summarizes the information about the treatment that they would receive (Appendices 5 and 6), participants reported the thoughts and feelings that experiencing the treatment decision caused them to have. Finally, they completed the PANAS scale (Watson et al. 1988).

The third part measured resource depletion. Participants were told that this part of the study was about how people made food decisions. They were presented with pictures of two desserts and asked to indicate which one they would eat if they had the two desserts in front of them right then (see Appendix 3-7). The two desserts were a fruit salad and a chocolate cake (Shiv and Fedorikhin 1999). The depletion of self-regulatory resources increases the likelihood of choosing the chocolate cake over the fruit salad (Bruyneel et al. 2006) as the chocolate cake is an affect-driven impulsive alternative (Shiv and Fedorikhin 1999). Finally, they completed a questionnaire that included measures of effort and involvement adapted from Study 1.

Results

Preliminary Analyses. Positive affect, negative affect, effort spent to make the treatment decision, and involvement with the treatment decision were subjected to separate 2 (decision mode) x 2 (self affirmation) ANOVAs. Neither negative affect (all p values > .49) nor positive affect (all p values > .13) significantly varied between the cells of the design. As expected, participants in the independent condition (M = 6.54, SD = 2.43) reported greater decision making effort than those in the delegation condition (M = 3.13, SD = 3.07, $F(1,94) = 36.34$, $p < .0001$). No other effects were significant in the model with effort as the dependent measure.

The ANOVA with involvement as the dependent measure revealed significant main effects of decision mode ($F(1,94) = 137.30$, $p < .0001$) and self affirmation ($F(1,94) = 9.21$, $p < .004$). Involvement with the delegated decision (M = 2.94, SD = 3.56) was less than that with the independent decision (M = 8.84, SD = 1.34). Participants who had affirmed their belief in free will (M = 6.52, SD = 3.85) reported greater involvement than those who had not done so (M = 5.35, SD = 4.08). The interaction between decision mode and affirmation was also significant ($F(1,94) = 3.87$, p = .05). The analyses of simple effects revealed that involvement with the independent decision in the affirmation condition (M = 9.13, SD = 1.11) did not significantly differ from that in the no affirmation condition (M = 8.58, SD = 1.50, $p > .44$). However, perceived involvement with the delegated decision in the affirmation condition (M = 4.11, SD = 3.92) was significantly greater than that in the no affirmation condition (M = 1.55, SD = 2.54, $F(1,94) = 12.23$, $p < .0008$). Therefore, affirming their belief in free will increased participants' perceived involvement with their decisions.

The choice shares of the two treatment options were evenly split both in the independent decision condition (50% drug, 50% surgical, $\chi^2(1,50) = 0$, $p = 1.00$) and in the delegation condition (54% drug, 46% surgical, $\chi^2(1,48) = 0.33$, $p > .56$). Treatment choice was also analyzed using a logistic regression model with decision mode, affirmation, and their interaction as independent variables. This analysis revealed no significant effects (all p values > .66). Therefore, participants on average experienced the same choices across conditions.

Depletion of Self-Regulatory Resources. The dessert choice was analyzed using a logistic regression model with decision mode, affirmation, and their interaction as independent variables. No main effects emerged (both p values > .19), but the interaction between decision mode and affirmation was significant ($\chi^2(1,98) = 4.08$, $p < .05$). This interaction (see Figure 3-1) was further investigated by testing simple effects. In the no affirmation condition, participants who had delegated their decisions were more likely to choose the chocolate cake than those who had made their decisions independently ($\chi^2(1,48) = 5.37$, $p < .03$). In the delegation condition, those who had affirmed their belief in free will were less likely to choose the cake than those who had not affirmed their belief in free will ($\chi^2(1,48) = 4.22$, $p < .04$). No other simple effects were significant (both p values > .41).

Thought Protocols. Participants' reports of the thoughts and feelings they experienced during the treatment decision (see Appendix 3-8 for representative examples) were coded by two independent judges blind to condition according to a coding scheme that consisted of six categories: (1) positive thoughts about the chosen alternative, (2) negative thoughts about the chosen alternative, (3) positive thoughts about

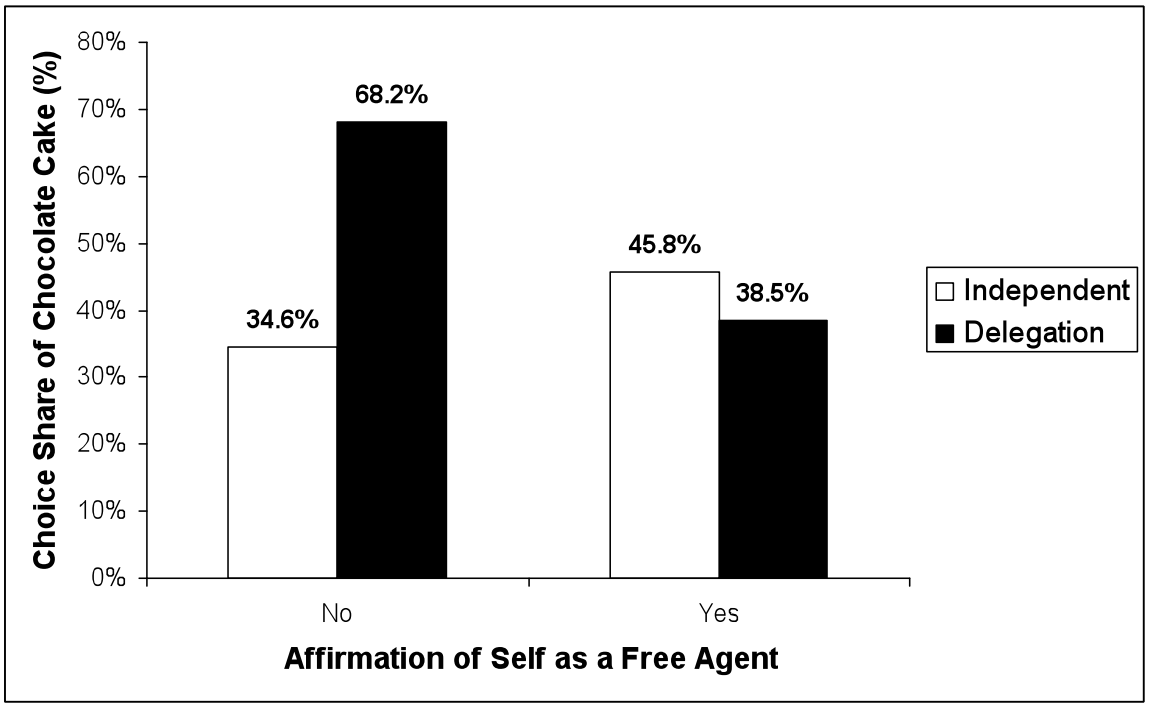
the surrogate, (4) negative thoughts about the surrogate, (5) positive affect, and (6) negative affect. The agreement between the judges was above 92% for all categories, and the remaining discrepancies were resolved through discussion. Each participant's total number of thoughts, which reflects the overall intensity of his or her psychological response to the decision, was subjected to an ANOVA with affirmation, decision mode, and the interaction of these two factors as independent variables. This analysis revealed a significant interaction between decision mode and affirmation ($F(1,94) = 4.36$, $p < .04$), whereas neither of the other effects was significant (both p values > .70). The interaction was further investigated by testing its simple effects. Among participants who had not affirmed their belief in free will, the number of thoughts in the delegation condition ($M = 4.50$, $SD = 2.15$) was significantly greater than that among participants in the independent decision condition ($M = 3.04$, $SD = 1.43$, $F(1, 46) = 7.89$, $p < .008$). Among participants who had affirmed their belief in free will, the number of thoughts in the delegation condition ($M = 3.54$, $SD = 1.58$) did not differ significantly from that in the independent decision condition ($M = 3.71$, $SD = 2.46$, $p > .77$). Neither of the two other simple effects was significant (both p values > .08). Affirming the belief in free will eliminated the increase in the overall intensity of cognitive response caused by decision delegation. These results support the hypothesis that affirming the belief in free will facilitates coping with the self-esteem threat posed by the loss of decision control.

Discussion

If decision delegation is perceived as a threat to our self-esteem and coping with this threat depletes our limited self-regulatory resources, weakening the strength of this threat by affirming our ability to exercise free choice should also weaken the resource

depletion caused by it. The results of Study 2 provide strong support for this hypothesis (H2), whereas they contradict the predictions implied by an alternative account based on reactance theory.

Figure 3-1. Choice Shares of the Chocolate Cake



Study 3

Study 3 examines the hypothesis that merely reminding consumers of a decision that they delegated in the past reduces their self-control relative to reminding them of a past decision that they made independently (H3).

Method

Participants and Design. Thirty-six residents of Canada (21 females, 15 males, median age = 40.5) were recruited through a university-run online participant panel. They received a payment of $3. Participants were randomly assigned to one of two

experimental conditions – they were either reminded of a past decision that they delegated or of one that they made independently.

Procedure. Participants completed the study via the Internet using their personal computers. They first learned that they would participate in two unrelated studies. The first part included the reminder manipulation. To conceal its true purpose, this was presented to participants as "Study 1 - Personality Assessment". Participants first responded to the self-monitoring scale (Snyder 1974). Next, they were asked to respond to two open-ended questions. Following prior research that induced a different form of self-esteem threat using open-ended questions (Greenberg et al. 1990), participants were told that the questions represented recently developed personality measures, and that their responses would be analyzed to assess various dimensions of their personality. The first question was "Briefly describe a decision that you made yourself in the past" in the independent decision condition and "Briefly describe a decision that someone else made on your behalf in the past" in the delegated decision condition. To ensure that decisions recalled in both conditions were equally important, all participants were also informed that this should be a decision that had important consequences for them. The second question, which was the same in both conditions, was designed to get participants to elaborate: "Describe, as specifically as you can, all the thoughts and feelings that experiencing this decision caused you to have." After that, participants completed the PANAS scale (Watson et al. 1988). (A sample of the decisions reported by participants is provided in Appendix 3-9.)

The second part was designed to measure self-regulatory resource depletion. Participants were asked to choose between a chocolate cake and a fruit salad following

the same procedure as in Study 2. After making the choice, participants entered all the thoughts and feelings that they experienced while making this choice in a text box. Next, they completed a questionnaire that included items about the past decision that they recalled during the first part: (1) ease of recall: "How easy was it for you to recall this decision?" (1 = "not at all easy", 7 = "very easy"), (2) time of the decision: "How long ago did this decision take place?" (pull-down menus), and (3) consequences of the decision: "Were the consequences of this decision negative or positive for you?" (1 = "negative", 7 = "positive").

Results

Preliminary Analyses. Neither positive nor negative affect differed between conditions (both p values > .4), nor did the ease of recalling the decision (M = 6.17, SD = 1.76), the time of the decision (M = 5.22 years, SD = 8.82), and the consequences of the decision (M = 4.43, SD = 1.94; all p values > .2).

Depletion of Self-Regulatory Resources. The measure of self-regulatory resource depletion was participants' choice of dessert. A logistic regression analysis showed that the choice share of the chocolate cake among those who had been instructed to recall a delegated decision (70.6%) was significantly greater than that among participants who had been asked to recall an independent decision (31.6%, $\chi^2(1,36) = 5.46$, $p < .03$).

Impulsivity/Yielding to Temptation. The open-ended responses to the question about the thoughts and feelings experienced during the dessert decision were coded by two independent judges who were blind to condition by counting the thoughts indicating impulsivity (e.g., "I thought about the way my senses reacted to the pictures - which one made my mouth water, which seemed more visually appealing, what sort of taste I was

craving.") and yielding to temptation (e.g., "I thought I really should choose that fruit salad as it is healthier, but I choose the chocolate cake because it looked beautifully plated."). The judges agreed on more than 90% of the responses, and the differences were resolved through discussion. The number of thoughts indicating impulsivity/yielding to temptation was greater in the delegation condition (M = 1.41, SD = 1.66) than in the independent condition (M = 0.53, SD = 0.90, t(34) = 2.17, $p < .04$). I also tested whether impulsivity/yielding to temptation mediated the effect of the reminder manipulation on dessert choice (Baron and Kenny 1986). A logistic regression with dessert choice as the dependent variable and condition as the independent variable revealed a significant positive effect of delegation on the probability of choosing the cake ($\chi^2(1,36) = 5.46$, $p < .03$). A linear regression with impulsivity/yielding to temptation as the dependent variable and experimental condition as the independent variable (independent = -1, delegation = 1) revealed a significant positive effect of delegation ($t(34) = 2.17$, $\beta = .34$, $p < .04$). Finally, I analyzed the dessert choice using a logistic regression model with the reminder manipulation and impulsivity/yielding to temptation as independent variables. This model revealed a significant positive effect of impulsivity/yielding to temptation on the probability of choosing the chocolate cake ($\chi^2(1,36) = 5.90$, $p < .02$), whereas the effect of condition became non-significant ($\chi^2(1,36) = 2.59$, $p < .10$). Therefore, impulsivity/yielding to temptation fully mediated the effect of condition on dessert choice.

Discussion

Remembering a delegated decision weakened self-control more than remembering an independently made decision. These results demonstrate that the resource depleting

effect of decision delegation can be revived by providing a reminder of the delegated decision, even when the recalled decision occurred in the distant past. Moreover, the findings of Study 3 show that this effect on self-control failure was mediated by an increase in impulsivity and in the inability to resist temptation.

Study 4

The objective of Study 4 is to test the prediction that remembering a decision that was forcibly delegated and remembering a decision that was delegated voluntarily both cause greater self-regulatory resource depletion than remembering a decision that was made independently. I propose that whether voluntary or forced delegation depletes more resources depends on the ease of coping with the self-esteem threat posed by each. Various situational factors influence the difficulty of coping with a given type of decision delegation. For instance, the voluntary delegation of decisions that one is expected by society to be responsible for may have serious negative implications to self (e.g., appearing weak or incompetent to self and others) and thus, is difficult to cope with. On the other hand, forced delegation can be difficult to cope with if the removal of choice freedom is perceived as personally directed (Brehm 1966). Participants in Study 4 recalled a diverse set of decisions that arose from various situations. Therefore, I did not have an a priori prediction as to whether remembering a voluntarily or forcibly delegated decision would be more depleting than the other. The purpose of this study is merely to test whether H3 holds for both voluntary and forced delegation.

In the interest of generalizability, a different measure of the availability of self-regulatory resources was employed in this study. The depletion of self-regulatory resources weakens consumers' ability to resist external influence attempts. In particular,

it has been shown that resource depletion reduces resistance to persuasion (Burkley 2008) and increases compliance with charitable requests (Fennis, Janssen and Vohs 2008). It should also increase consumers' likelihood of being influenced by sales promotions. Moreover, buying an item on sale can be an instance of impulse buying, which consumers have been shown to be more susceptible to when resource depleted (Vohs and Faber 2007). Therefore, consumers' inclination to purchase items that are on sale is used as a measure of the depletion of self-regulatory resources in this study.

Method

Participants and Design. One hundred and seven U.S. residents (77 females, 30 males, median age = 37) were recruited through an online participant panel. They received a payment of $3 (US). Participants were randomly assigned to one of three conditions – reminder of a past independent decision, reminder of a decision that they were required to delegate in the past (forced delegation), or reminder of a decision that they chose to delegate in the past (voluntary delegation).

Procedure. Participants completed the study via the Internet using their personal computers. They learned that they would participate in two unrelated studies. The first part, which included the reminder manipulation, was presented to participants as "Study 1 – Brand Logo Preference and Personality." To conceal the true purpose of the study, participants were told that the study was designed to help understand how people's preference for brand logos is related to their personality. Participants first rated five different images for their suitability as brand logos. After that, the reminder manipulation was implemented through two open-ended questions as in Study 3. The first question was "Briefly describe a decision that you made yourself in the past", "Briefly describe a

decision that you were required to let someone else make on your behalf in the past" and "Briefly describe a decision that you voluntarily let someone else make on your behalf in the past" for the independent decision, forced delegation, and voluntary delegation conditions, respectively. The second question, which was the same in all three conditions, was designed to get participants to elaborate: "Describe, as specifically as you can, all the thoughts and feelings that experiencing this decision caused you to have." (A sample of the decisions recalled by participants is presented in Appendix 3-10.)

After completing the PANAS scale (Watson et al. 1988), participants started the second part, which was presented as "Study 2 – Shopping Trip to Buy Milk and Bread". Participants were asked to imagine that they visited a convenience store to buy milk and bread (see Appendix 3-11). They were also told "The primary purpose of your shopping trip is to buy milk and bread. However, feel free to add other products that you would buy if you were shopping at a convenience store right now." Next, they were presented with a shopping interface that contained the images, brief descriptions, and prices of 28 products that were available in the convenience store, including four milk and four bread items (see Appendix 3-12). Participants were able to add or drop products to/from their shopping basket until they decided to check out and purchase the items in their basket. Four of the 28 products were marked as being on sale, and these did not include any milk or bread items. The key dependent measure was whether a participant purchased one (or more) of the sale items.

Finally, participants completed a questionnaire that included the same items as the one used in Study 3. A manipulation check that measured participants' willingness to delegate was also included in the two delegation conditions: "How willing were you to let

someone else make this decision on your behalf?" (1 = "not at all willing", 7 = "very willing"). Finally, participants were asked to indicate, for each of the products they acquired during the shopping trip, whether or not they had planned in advance to purchase it.

Results

Preliminary Analyses. Neither positive nor negative affect were influenced by the reminder manipulation (both p values > .55). The ease of recalling the decision (M = 5.84, SD = 1.61), the time of the decision (M = 1.27 years, SD = 3.55), and the consequences of the decision (M = 5.55, SD = 1.67) did not differ between conditions (all p values > .2). Participants in the voluntary delegation condition were significantly more willing to let someone else make the decision on their behalf at the time (M = 5.73, SD = 1.19) than those in the forced delegation condition (M = 4.24, SD = 2.30, $t(64) = 3.41$, $p < .002$), indicating that the manipulation of voluntary vs. forced delegation was successful. In the convenience store shopping task, 82% of participants purchased both milk and bread, with 93% buying at least one of these two products. Participants indicated that 97% of all milk and bread purchases were planned in advance, whereas only 18% of their purchases of items on sale were planned.

Depletion of Self-Regulatory Resources. Greater self-regulatory resource depletion should render consumers more likely to be influenced by sales promotions. Thus, the key dependent variable is whether a participant purchased any of the sale items during the convenience store shopping task. This binary outcome variable was subjected to a chi-square test, which was significant ($\chi^2(2,107) = 6.69$, $p < .04$). In particular, the probability of buying a product on sale was significantly higher in the forced delegation

condition (44.8%) than in the independent decision condition (19.5%, $\chi^2(1,70) = 5.18$, $p < .03$). Similarly, the probability of buying a sale item was also significantly higher in the voluntary delegation condition (43.2%) than in the independent decision condition ($\chi^2(1,78) = 5.14$, $p < .03$). However, the probability of purchasing a product on sale did not differ between the voluntary and the forced delegation conditions ($p > .89$).

Discussion

These findings support the prediction that the resource-depleting effect of remembering a delegated decision is invariant to whether a consumer was required to delegate that decision or did so voluntarily. Therefore, hypothesis H3 holds for both voluntary and forced delegation.

General Discussion

Contributions and Theoretical Implications

An emerging body of research building on the self-regulatory strength model (Baumeister et al. 1998) suggests that the depletion of self-regulatory resources can help explain a variety of behaviors in domains such as information processing, self-presentation, and impulse buying (e.g., Schmeichel et al. 2003; Vohs et al. 2005; Vohs and Faber 2007). The present work contributes to this growing literature in that it is the first to examine the interplay between self-regulatory resource depletion and consumers' relinquishment of decision control to surrogates.

The present research also makes a novel contribution to the literature on self-regulatory resource depletion caused by decision making. It has been shown that the resource depleting effect of decision making (Baumeister et al. 1998, Vohs et al. 2008) decreases as decisions are experienced more autonomously (Moller et al. 2006). The

present research departs from this prior work in important ways. First, while Moller et al. investigated independent decisions that caused decreased feelings of autonomy, I have examined decision delegation, which involves the actual removal of the freedom to choose. Second, I have proposed and tested a psychological mechanism that explains the inverse relationship between decision autonomy and the resource depletion caused by decisions, and I have identified a novel moderator of this effect (self-affirmation) that has not been considered in prior research. Third, in contrast to Moller et al.'s work, the present research shows that merely providing a reminder of past decisions that lacked in autonomy also depletes individuals' limited self-regulatory resources.

The factors that determine consumers' relinquishment of decision control to surrogates such as financial advisors, healthcare professionals, and other service providers are not well understood (Usta and Häubl 2009). Therefore, the findings reported here contribute to the marketing literature by shedding light on how relinquishing the control of their decisions to surrogates influences consumers' availability of self-regulatory resources, which in turn affects consumption and purchase decisions (Baumeister 2002; Vohs and Faber 2007). Another important contribution of the current research is to the literature on consumers' desire for freedom of choice (e.g., Botti and McGill 2006; Fitzsimons and Lehmann 2004). The findings in this essay show that consumers' ability to persist at tasks that require self-control is significantly impaired when their freedom to choose is removed. This suggests that an important reason why consumers desire freedom of choice might be that relinquishing this freedom depletes their limited self-regulatory resources and reduces their ability to be successful at tasks that require self-control.

The evidence presented in this essay provides strong support for my hypothesis that decision delegation poses a threat to self-esteem, and that coping with this threat depletes self-regulatory resources. This is also corroborated by the results of an unpublished study in which I show that the more consumers' self-esteem is contingent on the specific decision-making domain, the more resource depleted they are upon delegating a decision in that domain. It has been suggested that it is the amount of "psychological work" involved in making a decision that determines the extent of resource depletion caused by the decision (see Baumeister et al. 2008). The psychological work associated with making a decision independently entails the cognitive and/or emotional effort required to identify the preferred alternative or course of action. By contrast, I propose that the psychological work involved in delegating a decision includes the effort required to cope with the self-esteem threat caused by the loss of the freedom to choose. In line with previous work suggesting that the cognitive response to self-esteem threats is very intense (Holmes and Schallow 1969), the results of Study 2 indicate that the psychological work involved in coping with the self-esteem threat posed by delegating a decision is greater than that required for making the decision independently.

Practical Implications

It has been suggested that one of the primary reasons why consumers delegate decisions to surrogates is to free up resources such as time and/or cognitive capacity that are required to accomplish other important tasks (Hollander and Rassuli 1999). The present research identifies the important role of another type of resource – that required for the self-regulation of behavior –in consumer decision delegation. However, contrary to the notion that consumers who delegate their decisions to surrogates can conserve

resources for other tasks, the findings reported here show that decision delegation actually *reduces* consumers' self-regulatory resources and impairs their performance at other tasks that require self-control. Failures of self-control can have profound negative consequences for consumer welfare such as overspending, obesity, and addictions (see, e.g., Baumeister 2002). Therefore, it is important to inform consumers about such welfare implications of relinquishing decision control to surrogates, and about the mental processes that underlie these influences.

The findings in this essay also have important practical implications for marketing communications. As Studies 3 and 4 have shown, the effect of decision delegation on resource depletion can be revived by reminding consumers of a decision that they delegated in the past. Therefore, marketers can induce resource depletion by reminding consumers of previous incidences when they lost the freedom to choose. For example, ads might be designed to link such occasions (e.g., childhood memories of parents restricting one's choices, one's spouse interfering in one's decisions, etc.) to a product the purchase of which results from a failure of self-control (e.g., unhealthy snacks, luxury items, etc.). Consumers who subsequently see the product in a store and are reminded of the ad might experience resource depletion, which in turn could make them more likely to purchase the product. Moreover, in light of recent work showing that resource depletion facilitates persuasion (Burkley 2008), reminding consumers of instances when they lost the freedom to choose in ads may increase the latter's persuasiveness.

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IV. GENERAL DISCUSSION

My dissertation investigates the psychological processes relevant to consumers' relinquishment of decision control to surrogates. Based on self-determination theory (Deci and Ryan 1991; 2000), the first essay proposes that a key reason why consumers' are reluctant to relinquish the control of their decisions to expert surrogates (e.g., financial advisor, physician) is that such relinquishment contradicts consumers' inherent motivation to experience an internal perceived locus of causality (PLOC) for their decisions. In support of this, consumers' propensity to delegate a decision to an expert surrogate increased when consumers' motivation to maintain an internal PLOC was weakened by an experimental manipulation and when a contextual factor related to the decision itself prevented them from experiencing an internal PLOC for their decision.

The theoretical argument that the inherent motivation to experience an internal PLOC underlies consumers' reluctance to relinquish decision control has the following implications for future consumer research. The contextual factors that increase consumers' willingness to delegate their decisions to surrogates may not be limited to those factors (i.e., reduction in assortment size in Study 2 and incentive to choose a certain course of action in Study 3) demonstrated in the first essay. The theoretical framework developed in this essay allows the prediction of various factors that may have the same effect on consumers' likelihood to delegate. For example, promotions can cause consumers to feel that their reason for choosing a particular product is based on the promotion rather than their internal preferences and desires (e.g., Kivetz 2005). Therefore, the presence of promotions for choosing a product may create pressure towards making the decision in a particular way (i.e., shift the PLOC for the decision

from internal to external) and in turn, may increase consumers' likelihood to delegate that decision to a surrogate. Future research should investigate the conditions under which promotion activities relevant to a decision increases consumers' willingness to relinquish the control of that decision to a surrogate.

The theoretical framework presented in the first essay can also help consumer researchers predict the differences between consumers' willingness to relinquish control to surrogates in different decision making domains. One pursues a goal either for a reason that originates from one's self (i.e., intrinsic reason) or for a reason that originates from a source external to the self (i.e., extrinsic reason; Deci and Ryan 2000). Consumers may tend to pursue predominantly intrinsic goals or predominantly extrinsic goals in a given decision making domain. For example, the majority of those who travel for leisure do so for the sake of personal pleasure and enjoyment. Leisure travel is a decision-making domain in which intrinsic goal pursuit prevails. On the other hand, the majority of those who invest their money in financial assets do so to earn a monetary return. Financial investment is a decision-making domain in which extrinsic goal pursuit prevails.

Extrinsic goal pursuit makes it more likely that humans experience an external PLOC for goal-related behaviors whereas intrinsic goal pursuit is characterized by the experience of an internal PLOC for goal-related behaviors (e.g., Sheldon et al. 2004). The theoretical framework in the first essay suggests that consumers' likelihood to delegate their decisions to surrogates will increase when the decision's context leads to the experience of an external PLOC for the decision. Therefore, all else being equal between the two decision-making domains, consumers' likelihood to delegate their decisions to a surrogate in a domain for which their goal pursuit is extrinsic should be greater than that

in a decision-making domain for which consumers' goal pursuit is intrinsic. Future research should investigate this hypothesis by measuring consumers' tendency to relinquish decision control to surrogates and their PLOC for goal pursuit in different domains. Controlling for other important factors that vary by domains (e.g., the consumers' expertise relative to the surrogate's expertise, the cost of surrogate services), the between-domains difference in consumers' PLOC for goal pursuit should significantly predict the between-domains difference in their likelihood of relinquishing decision control.

The theory and findings of the first essay also have practical implications regarding how surrogates should plan their marketing activities to attract clients. The results of Studies 2 and 3 in the first essay suggest that consumption situations including contextual factors that shift the anticipated PLOC for a consumer decision from internal to external are conducive to consumers' relinquishment of decision control to surrogates. Surrogates can intensify their activities such as advertising when such situations arise. For example, when consumer decisions in a given decision-making domain are restricted by the elimination of some decision alternatives (e.g., due to stockouts), surrogates who provide services in this domain can increase their efforts to convince their clients to delegate their decisions. Furthermore, I argue above that consumers should tend to relinquish decision control in domains where consumers' goal pursuits are predominantly extrinsic. If a surrogate's expertise applies to multiple decision-making domains, this surrogate should allocate more resources to attract clients in a domain in which the goal pursuit is predominantly extrinsic rather than wasting resources to obtain clients in a domain in which the goal pursuit is predominantly intrinsic.

The second essay of my dissertation also has important theoretical and practical implications. Based on the self-regulatory strength model (Baumeister et al. 1998) and prior research on self-esteem threats (e.g., Steele 1988; Steele and Lui 1983), the second essay predicts and shows that delegating decisions to surrogates depletes consumers' limited self-regulatory resources more than making the same decisions independently, thus impairing their subsequent ability to exercise self-control. Delegating a decision depletes more resources than independent decision-making although the former actually requires less decision making effort than the latter. However, an intervention that reduces defensiveness eliminates this effect. The resource depleting effect of decision delegation vanishes when consumers have an opportunity to affirm their belief in free will. Moreover, remembering a past decision that one delegated impairs self control more than remembering a decision that one made independently.

Whereas the second essay of my dissertation demonstrates the resource depleting effect of decision delegation, it is also a curious question whether self-regulatory resource depletion has an effect on consumers' likelihood to delegate their decisions to a surrogate. It has been shown that individuals whose self-regulatory resources are depleted in an earlier task tend to give up more quickly on a subsequent task that requires the use of such resources (e.g., Baumeister et al. 1998; Baumeister and Heatherton 1996). That is, when our self-regulatory resources are low, we avoid engaging in behaviors that might deplete them further. If delegating a decision to a surrogate is more resource depleting than making the decision independently, the availability of self-regulatory resources should influence consumers' inclination to delegate the decision (rather than make it on their own). Specifically, individuals whose self-regulatory resources have been depleted

should avoid further depletion and, thus, be less willing to delegate their decisions than those who have more of such resources available. Future research should empirically test this hypothesis.

Both essays of this dissertation also have important implications for consumers' well-being because the desire to retain the control of decisions persists even in domains where making decisions without expert help can have serious consequences for consumer welfare. According to a recent large-scale study, only 41 percent of American equity investors buy equities through professional financial advisors, and of those who do, only 15 percent allow the advisor to lead the investment decision (ICI and SIA 2005). Private investors who manage their own portfolios tend to make poor asset allocations (Benartzi and Thaler 2002), and the welfare loss resulting from this can be substantial (Brennan and Torous 1999). Therefore, it is important to identify the psychological processes that underlie consumers' reluctance to relinquish the control of their decisions to expert surrogates. Informing consumers about these processes can increase the quality of their decisions by making them more likely to relinquish decision control to expert surrogates.

In conclusion, this dissertation sheds light on the antecedents and the consequences of consumers' relinquishment of decision control to surrogates. In doing so, it makes contributions to previous research on consumers' desire for choice freedom, consumers' use of decision assistance and consumers' use of surrogate services. Furthermore, this dissertation contributes to the psychology literature on the relinquishment of control, self-determination theory, and self-regulatory strength model. By developing novel theoretical accounts of consumers' relinquishment of control decisions, the two essays of this dissertation lay the foundation for future research that

will aim to further our understanding of consumers' interaction with surrogates. In addition to such theoretical contributions to the literature, the findings in this dissertation have important practical implications not only for those who market surrogate services but also for consumers who use the services of surrogates.

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APPENDICES

Appendix 2-1

Intrinsic Motivation Inventory: Perceived Choice Subscale

(McAuley, Duncan, and Tammen 1989; Ryan 1982)

Please indicate how true each of the following statement is for you. Use the response scale given below each statement.

1. I believe I had some choice about matching the cards.*
2. I felt like it was not my own choice to match the cards. (R)
3. I didn't really have a choice about matching the cards. (R)
4. I felt like I had to match the cards. (R)
5. I matched the cards because I had no choice. (R)
6. I matched the cards because I wanted to.
7. I matched the cards because I had to. (R)

* A seven-point response scale (1 = "not at all true," 4 = "somewhat true," 7 = "very true") was used. Reverse-coded items are indicated by (R).

Appendix 3-1

Instructions for the Key Pressing Task (Study 1)

After reading the following instructions, click on the button below to start the task.

1. Press the down arrow key (↓) using your **right index finger**.

2. Keep your right index finger on the down arrow key **as long as you can**.

3. Release the key **when you feel like you cannot hold it any longer**.

It is **important** that you hold the key as long as you can. Please **do not release the key until** you feel like you cannot hold your finger on the key any longer.

When you release the key, you will be automatically directed to the following page.

Click here to start the task

Appendix 3-2

Decision Alternatives (Study 1)

HOTEL DECISION

Please examine the information about the two hotels below.

Island Breeze Hotel	***Ocean Dream Hotel***
	
Three blocks from the beach. Near the shopping/dining area. Room: 1 king or 2 double beds. No ocean view. Satellite TV. Free scuba lesson, no fitness center. Nightly entertainment with live music. Price: $620/week* **Price includes breakfast and lunch.*	Near the beach. Three blocks from the shopping/dining area. Room: 1 king or 2 double beds. Ocean view. No satellite TV. Fitness center, no free scuba lesson. Nightly entertainment with theme shows. Price: $540/week* **Price includes breakfast.*

Click here to continue

Appendix 3-3

Decision Alternatives (Study 2)

TREATMENT OPTIONS

The information about each treatment is summarized in the table below.

Please **examine** this information **carefully**.

	Surgical Treatment	**Drug Treatment**
Procedure	Undergo a 1-hour surgery under local anesthesia	Apply a cream twice a day on your wrist
Chance of treatment success	95%	70%
Time until full recovery if treatment is successful	2 weeks	4 weeks
Risk of treatment	Permanent nerve damage (probability: 0.1%)	Temporary skin irritation (probability: 10%)

Click here to continue

Appendix 3-4

Task Instructions (Study 2, Delegation Condition)

DELEGATION OF YOUR TREATMENT CHOICE

You decide to **delegate** your treatment choice **to your physician**.

Your physician will decide on your behalf which treatment you will receive.

You will not be able to choose how your wrist injury will be treated.

Click here to continue

Appendix 3-5

Chosen Alternative (Study 2, Independent Condition)

FINAL DECISION: YOU WILL RECEIVE THE SURGICAL TREATMENT

You decided that you would receive the surgical treatment.

	Surgical Treatment
Procedure	Undergo a 1-hour surgery under local anesthesia
Chance of treatment success	95%
Time until full recovery if treatment is successful	2 weeks
Risk of treatment	Permanent nerve damage (probability: 0.1%)

Click here to continue

Appendix 3-6

Chosen Alternative (Study 2, Delegation Condition)

FINAL DECISION: YOU WILL RECEIVE THE SURGICAL TREATMENT

Your physician decided that you would receive the surgical treatment.

	Surgical Treatment
Procedure	Undergo a 1-hour surgery under local anesthesia
Chance of treatment success	95%
Time until full recovery if treatment is successful	2 weeks
Risk of treatment	Permanent nerve damage (probability: 0.1%)

Click here to continue

Appendix 3-7

Dessert Choice Task (Studies 2 & 3)

If you had the following two desserts in front of you now, which one would you eat?

Fruit Salad

Chocolate Cake

Appendix 3-8

Thoughts and Feelings Experienced During the Treatment Decision (Study 2)

Independent Decision Condition:

"I had two options, looked at the facts, felt good about the surgical option and weighed up the risk factors. I feel quite good that at least I could see the % and risks."

"Nerve damage gave me a scare, but the chances are almost non existent, and I would not be able to remember to put on a cream twice a day for two weeks, and it has a smaller chance of working, with a bigger chance of recurring."

"Some doubt about the possibilities of recurrence, and apprehension about having to make a choice at all."

"I chose this option because of the slight chance of permanent nerve damage. I feel that it's too large a chance to take."

Delegation Condition:

"I would trust my physician's decision. I would also be quite comfortable with the choice that doctor made, although I would most likely experience some hesitation I would ask a lot of questions regarding the procedure and treatment after surgery. If my physician was respected and trusted I would be quite comfortable in that person making the decision."

"There were temptations to the surgical treatment but the risk of permanent damage, although only 0.1%, was too great for me as a first option. The doctor's decision therefore corresponded with my own conservative choice of initial treatment. My confidence in the doctor would have risen as a consequence."

"I don't feel strongly about the decision. It's a slight relief that surgery was ruled out and I don't have to go to hospital. I would trust the physician to choose the right treatment for me but I would want to have the final say."

"I personally would have chosen the surgery, although some people I know would not have as they have never been put "under" before. I would trust the doctor's decision and if this treatment did not work, I am sure he or she would recommend the surgery after trying the cream first."

"I was relieved because surgery should only be a last resort. Surgery has too many "grey" areas which could cause many complications and some of them could be very serious. Any minor complications from the drug treatment would only be temporary, while surgery complications could be permanent."

Appendix 3-9

Past Decisions Recalled by Participants and Thoughts/Feelings Caused by Experiencing these Decisions (Study 3)

Independent Decision Condition:

"I decided to go with my friend on his family trip. I felt guilty because they paid for a lot of stuff that made the trip better for me."

"I decided to stay at a job I didn't really like in order to put my kids through school and to better be able to be home with them when needed. I felt depressed and agitated at the decision to stay at the job rather than to go on and do something that I really wanted to do or to go back to school and try something new. Later on I felt that I had wasted a lot of time and it was very hard for me to go on."

"I decided to give up a child for adoption. I felt like I was taking the easy way out, abandoning the child while telling myself I was doing what was in child's best interests."

"I felt that my boss was being unfair in demoting me shortly before my retirement so I chose to retire earlier than I had planned. I felt at the time that I would not miss my job, the social aspect of the workplace and the heavy workload but I was wrong."

Delegated Decision Condition:

"My fiancée decided on attending a party for his family members. I was upset because I would like to be asked first."

"My parents separated and my mother decided to take me away from my hometown into a large urban city. This decision made me feel helpless and alone, scared, empty, sad, angry, furious, meek, shy, quiet, unimportant, friendless and unable to trust people or be emotional."

"I needed my tonsils out at age 13, or at least my doctor thought I did. So he and my parents decided I would have a tonsillectomy. I was scared, mad, felt out of control."

"It was decided for me that I would be getting married at an earlier age than I had wanted to be married. I was very angry, completely horrified and shocked. I wanted to run away to a different part of the country (another province) for several years until the situation had "cooled down". I had thoughts of hurting, possibly even killing the people that had made the decision for me against my will."

Appendix 3-10

Past Decisions Recalled by Participants and Thoughts/Feelings Caused by Experiencing these Decisions (Study 4)

Independent Decision Condition:

"I made a decision regarding shopping and price. I normally use a specific brand of bread, but given the rising prices of everything, decided to go with a less expensive brand that day. The thoughts and feelings that I got were at first disheartened that I had to even consider purchasing another brand and secondly, angry at the increasing prices."

"I decided to try scuba. I felt excitement, joy and pride that I did it!"

Voluntary Delegation Condition:

"I let an individual make many decisions on the selection of cast and personnel of a play I had written, as well as how the cast and personnel would be treated. I felt insecure, inadequate to the task, disrespected, pushed aside, angry and looked over."

"I believe the last time I voluntarily let someone else make a decision for me was a DVD purchase. I had several ones I was intending to research more, I sent my oldest daughter to pick one for me. My thoughts after she left to go to Wal-Mart to purchase one, was a little apprehensive as I felt she would pick the one more suited for her entertainment than mine."

"I let my husband decide what color to paint the outside of the house. I felt secure that my husband would make a good choice. I felt happy that I didn't have to decide."

Forced Delegation Condition:

"I was asked to make a recommendation on an equipment purchase at work, but someone else was to decide on the actual purchase, even though I would be the one using the equipment. The decision that person made totally disregarded my recommendation and ended up costing us client satisfaction. It ticked me off. I spent my time trying to find the best product for our needs and someone who had no concern for what I were attempting to accomplish was able to say, no, I don't need it, when in fact I did."

"My husband picked out flooring for our basement and I was not able to go and help choose so he picked everything. I was very nervous that I would not like what he picked and it would not match the rest of the furnishings. I was anxious to see what he picked and then excited when I saw the final products."

"When I was pregnant, certain decisions about my health had to be made by the doctor. I felt out of control, I felt annoyed."

Appendix 3-11

Task Instructions for Shopping at the Convenience Store (Study 4)

Shopping at the Convenience Store

On the next page you will see a number of **products** that are available at the convenience store.

- To **add** a **product** to your **shopping basket**, **click on its picture**.
- In order to buy **multiple items** of a product, click on the picture of that product **multiple times**.
- You will also be able to **remove** a product from your shopping basket by clicking on the **"Remove an Item"** button.
- To **purchase** the **products in your shopping basket** and leave the convenience store, click on the **"Checkout"** button at the bottom of the screen.

Remember that the **primary purpose** of your shopping trip is to **buy milk and bread**.

However, feel free to **add other products that you would buy** if you were shopping at the convenience store **right now**.

Click here to continue

Appendix 3-12

Convenience Store Shopping Task (Study 5)