This article demonstrates that a loss of personal control leads to an increase in self-regulatory behavior. This occurs because a loss of control puts consumers at a deficit relative to one of the major lessons they learn during their childhood, which is to have control over the outcomes of their actions. This deficit triggers a compensatory process focused on following other lessons that consumers believe they learned during their childhood. Because exerting self-regulation is another major lesson parents emphasize, consumers engage in self-regulatory behavior to compensate for a loss of personal control. However, when consumers believe their parents emphasized self-regulation less strongly during childhood (i.e., they believe their parents had a more permissive style), a loss of control can reduce self-regulatory behavior. These findings have implications for what we know about the effects of childhood experiences on adult consumer behavior, the importance of individuals’ beliefs about childhood experiences in determining adult behavior, the consequences of low personal control, and the antecedents of self-regulatory behavior.

**Keywords:** childhood socialization, personal control, self-regulation, self-control, compensatory behavior

In everyday life, consumers have varying degrees of control over their environment and experiences. While consumers are often in control of the outcomes they experience, control is threatened in other cases. This can occur outside of the marketplace, such as when close friends are affected by diseases with unpredictable outcomes or there are natural disasters, or in the marketplace, such as when economic conditions are difficult or marketers fail to offer products (e.g., stockouts) that are important for people’s daily survival. While research shows that individuals experiencing low personal control respond by seeking alternative sources of control (Cutright 2012; Durante and Laran, forthcoming; Friesen et al. 2014; Kay et al. 2008), in this research we propose an alternative mechanism.

Drawing from consumer socialization and compensatory behavior, we propose that adult consumers are guided by the lessons they believe their parents emphasized during the process of childhood socialization. While children come from a wide variety of home environments that differ according to ethnic backgrounds, socioeconomic conditions, and familial structures, the literature points to important areas of overlap in the goals of childhood socialization (Citlak et al. 2008). These goals include granting children personal control as they mature (Carrasco et al. 2011; Gauvain and Huard 1999; Keller et al. 2006; Miller and Harwood 2002; Ng et al. 2012), as well as teaching children the importance of self-regulation (Gralinski and Kopp 1993; Houck and LeCuyer-Maus 2004). As such, concepts learned from an early age and emphasized throughout childhood become part of individuals’ value system and worldview (Berger and Luckmann 1966; Kalantari 2012). For these reasons, we propose that later in life when adult consumers experience violations of lessons they associate with their childhood experiences, it triggers compensatory behavior aimed at restoring consistency with childhood experiences.
socialization. As part of this process, consumers who experience low personal control tend to engage in self-regulation when they believe self-regulation was strongly emphasized during their childhood.

This investigation is associated with a tradition of research on consumer socialization of children (John 1999). Here, instead of examining how children behave, we focus on how beliefs about childhood experiences can influence adult consumers’ behavior (Griskevicius et al. 2011; Mittal and Griskevicius 2014; Richins and Chaplin 2015). Therefore, we investigate how consumers’ beliefs about their parents’ style, which are formed by their recollection of the lessons emphasized by parents (e.g., making fewer or more demands that require self-regulation), influence responses to low control. We test our theory in three studies. Study 1 provides initial evidence for our conceptualization by showing that consumers increase their self-regulatory behavior following an experience of low control, but only when consumers believe their parents had a demanding style, which is more focused on self-regulation. For consumers who believe their parents had a permissive style, which does not emphasize self-regulation, low control does not increase self-regulatory behavior. Study 2 further investigates the role of beliefs about parenting style by measuring the recollection of lessons consumers were taught by their parents growing up, and finds that low control increases (decreases) self-regulation for consumers who recall that their parents did (did not) emphasize self-regulation. Study 3 directly manipulates beliefs about parenting styles, demonstrating that contextual information highlighting the idea that parents mostly teach their children about seeking pleasure also reverses the effect of low control on self-regulation.

CHILDHOOD SOCIALIZATION

Childhood socialization refers to the process by which a child’s behaviors, attitudes, and social skills are influenced, primarily by parents, to mold the child into a functioning member of society (Maccoby and Martin 1983; Taylor, Clayton, and Rowley 2004). Through the process of childhood socialization, individuals learn how to interpret their experiences, as well as their place in society (Berger and Luckmann 1966), a process most heavily shaped by parents (Taylor et al. 2004). This process is extremely important for understanding consumer behavior because it is during socialization that a young consumer develops the skills necessary to function in the marketplace (Carlson and Grossbart 1988; Ward 1974).

Childhood Socialization Goals

The developmental literature shows that parents differ with regard to how they interact with their children. According to Darling and Steinberg (1993), parents affect child development through three constructs: socialization goals (i.e., parental values and the goals toward which parents socialize children), parenting practices (i.e., parents’ specific behaviors aimed at achieving socialization goals), and parenting style (i.e., parental attitudes toward the child that create an “emotional climate” in which parental behaviors are expressed; Darling and Steinberg 1993, 488). An examination of the literature reveals that the goals that parents have for the development of their children are quite consistent, as they reflect the values society wants children to learn (Citlak et al. 2008; Keller and Joscha 2013). These goals, we propose, can affect consumer decision making (Carlson, Grossbart, and Walsh 1990; Kim, Yang, and Lee 2009).

In this regard, one of the most highly endorsed socialization goals in Western samples is children’s self-maximization, which reflects the ideas of autonomy and viewing children as individual agents who are responsible for the outcomes of their actions (Keller et al. 2006; Miller and Harwood 2002; Ng et al. 2012; Rutherford 2009). This endorsement is reflected in the general tendency to allow children more control as they age (Carrasco et al. 2011; Forehand and Jones 2002; Gralinski and Kopp 1993), which fits the overarching aim of socialization (i.e., to mold children into functioning members of society; Maccoby and Martin 1983; Taylor et al. 2004).

This importance is noted by developmental psychologists: “A reading of varied literatures suggests that early goals serve to protect children and ensure their survival, whereas later socialization shifts toward encouraging children’s autonomy and integrating them into the family and wider social networks” (Gralinski and Kopp 1993, 574). Supporting these ideas, Roberts, Block, and Block (1984, 591) find that parents rate the item “teaches child that he/she is responsible for what happens” as increasingly important as children age. In addition, Carrasco et al. (2011) found that children perceive a decrease in the extent to which parents exert control as they transition to adolescence. In short, promoting an understanding of personal control is a consistent theme of childhood socialization.

While children’s personal control is clearly a necessary aspect of fostering self-maximization, there are other important socialization goals. The widely used Socialization Goals Interview taps the long-term goals parents have for their children (Harwood 1992). Parents’ responses to these interviews tend to fall into one of five categories of socialization goals (Citlak et al. 2008; Durgel et al. 2009; Miller and Harwood 2002): (1) self-maximization (being an independent child that reaches their full potential), (2) self-regulation (avoiding unwanted behaviors), (3) lovingness (the ability to form and maintain close interpersonal relationships), (4) decency (being hardworking and law
Parenting Styles and Childhood Socialization Goals

While the goals just listed are common, different parenting styles can shape overarching attitudes about the socialization process and how strongly parents emphasize self-regulatory behavior. Research on parenting styles categorizes parents according to patterns of parent–child interactions (Baumrind 1971; Maccoby and Martin 1983). According to Maccoby and Martin’s (1983) influential framework, parents vary along the two orthogonal dimensions of demandingness and responsiveness. Demandingness is characterized by the provision of structure, order, and predictability, as well as shaping the child’s behavior and restraining potentially disruptive behavior. Responsiveness is characterized by the provision of emotional warmth and supportive actions (Baumrind 2013). As long as parents are supportive (i.e., high in the responsiveness dimension), the degree of demandingness will have a strong influence on how much parents reinforce a child’s self-regulation.

Parents who are supportive of their children and have a demanding parenting style are typically referred to as “authoritative.” These parents are more actively engaged in the socialization process than less demanding parents, typically referred to as “permissive” or “neglectful” (Darling and Steinberg 1993). Parents high in demandingness set strict behavioral standards for the child and enforce compliance with the standards through firm and consistent discipline (Kim, Yang, and Lee 2015). Demanding parents foster the development of self-regulation (Rodrigo, Janssens, and Ceballos 1999), inhibiting unwanted behaviors by requiring “a common nexus of self-regulatory processes, including the ability to start and stop behavior on the basis of situational requirements, to postpone the pursuit of a given goal, and to regulate the intensity of both overt action and affective arousal” (Maccoby and Martin 1983, 36). Another parenting style that is high in demandingness is “authoritarian.” Because these parents are low in responsiveness, however, this style leads to less development of self-regulation than an authoritative style (Patock-Peckham and Morgan-Lopez 2006; Spera 2005; Steinberg et al. 1991).

At the other end of the demandingness dimension, permissive and neglectful parents tend to be lenient and avoid confrontation with children. These parents are accepting of children’s impulses and hesitate to set or enforce rules for behavior (Baumrind 1991; Maccoby and Martin 1983). Similar profiles have been used to explain consumer childhood socialization, describing how parents restrict their children’s consumption, regulate the amount of television viewing time, provide lessons about materialism, and influence attitudes toward advertising (Carlson and Grossbart 1988).

Taken together, these descriptions indicate that parents share a set of goals they reinforce during the socialization of their children, and that different parenting styles (i.e., demanding, permissive) may determine how much emphasis parents put on the child’s self-regulation. We propose a process we call socialization compensation, whereby the perceived violation of lessons associated with a goal (e.g., low personal control) will trigger a compensatory process (Heine, Proulx, and Vohs 2006; Kim and Gal 2014). We discuss this process next.

Socialization Compensation

Adult consumers have an array of memories of their parents’ style (e.g., demanding, permissive) and the lessons they learned from their parents growing up (e.g., control, seek pleasure). These memories will influence consumers’ beliefs about their parents’ style and the lessons they learned. Socialization compensation implies that consumers who experience a violation of one of these lessons will respond by engaging in another behavior that they recall learning during childhood socialization. Because self-regulation “is intricately bound with autonomy and social competence” (Houck and LeCuyer-Maus 2004, 30), one way to compensate for an experience of low personal control is to engage in self-regulatory behavior, as long as the consumer believes this was a lesson she or he learned growing up. For example, consider situations where consumers have experiences that are outside of their control, such as having connectivity problems when trying to make an online purchase or being placed on hold by the cable company after a complaint (Cutright and Samper 2014). This lack of control would lead consumers to exert self-regulation (e.g., buy a utilitarian product, consume healthy food) during or after the current episode, especially if these consumers recall their parents as having a demanding style and therefore believe that a major lesson emphasized by their parents was self-regulation.

Alternatively, when consumers recall their parents as having a permissive style, they should not have the same beliefs about their parents’ emphasis of self-regulation. Indeed, given that parental permissiveness has been linked to higher general impulsiveness and excessive drinking (Patock-Peckham and Morgan-Lopez 2006), children whose recollections of their parents reflect a permissive style may not believe that self-regulation was an important lesson learned during childhood, and they may even believe their parents more strongly emphasized having fun and seeking pleasure. Based on the idea of compensation, these consumers will be less likely to respond to low control by exerting self-regulation than consumers who recall their parents as having a more demanding style. Counter to
the example discussed earlier, a lack of control would not lead to an increase in self-regulation, and it could even lead to an increase in pleasure-seeking behaviors (e.g., buy a hedonic product, consume tasty food).

The process of socialization compensation is congruent with research on compensatory control. Having control is a fundamental human motive (Botti and McGill 2006; Janoff-Bulman 1992; Kelly 1955), and people may adopt several strategies when experiencing low personal control. One strategy is to compensate for the loss of control by endorsing external sources of control, such as religious institutions (Kay, Moscovitch, and Laurin 2010; Kay et al. 2009; Laurin, Kay, and Moscovitch 2008) and the government (Kay and Eibach 2013; Kay et al. 2008; Kay et al. 2010; Shepherd et al. 2011). A second strategy is to seek structure, patterns, and organization (Friesen et al. 2014), because a sense of predictability and coherence is comforting to individuals experiencing low control (Cutright 2012; Cutright, Bettman, and Fitzsimons 2013; Whitson and Galinsky 2008). In fact, our predictions that low control can both increase and decrease self-regulation can be reconciled with previous findings on compensatory control. Although there is evidence that low control may lead to effortful behavior (Cutright and Samper 2014) and an increased desire for power (Inesi et al. 2011; Rucker, Galinsky, and Dubois 2012), there is also evidence that it can lead to eating disorders (Dalgleish et al. 2001; Polivy and Herman 2002) and depletion of self-regulatory resources (Chae and Zhu 2014). Across these responses, the implication is that consumers seek to reestablish control through an array of different means when their personal control is threatened. While the idea of compensation is congruent across the current research and compensatory control research, our approach differs in that it proposes that increasing or decreasing self-regulation is not used as a way to reestablish control. Rather, it is used as a way to compensate for the lack of consistency with what one believes they have learned during childhood socialization, independently of whether or not this behavior will restore control.

**STUDY 1**

Study 1 aimed to provide evidence for the prediction that low personal control increases self-regulation and this effect is moderated by recollections of childhood socialization experiences. Our theory predicts that self-regulation increases as a response to low control due to a perceived inconsistency between one’s current state relative to what one believes they learned through socialization. As discussed earlier, there are differences in parenting styles that affect the emphasis and development of self-regulation (Baumrind 1991; Grolnick and Ryan 1989). Therefore, consumers with different beliefs about their socialization experiences should respond in different ways. For participants who believe their parents had a more demanding parenting style (i.e., were authoritative), their beliefs about childhood socialization should reflect an emphasis on self-regulation. As a result, experiencing low control should lead to an increase in self-regulation. In contrast, for participants who believe their parents had a more permissive parenting style, their beliefs about childhood socialization should not reflect an emphasis on self-regulation. As a result, experiencing low control should not lead to an increase in self-regulation because exerting self-regulation will not compensate for the socialization violation that the loss of control creates.

**Method**

Participants and Design. A total of 209 undergraduate business students participated as partial fulfillment of a course requirement or to earn extra credit. We screened participants in this and all subsequent studies to ensure that questions were read. Specifically, we included two questions at different points of the study designed to appear similar to preceding questions, but the body of which informed participants to select a specific response (e.g., “How happy do you feel? Actually, please click the number two to show us you are paying attention;” “My parents spent a lot of time with me. Actually, please click ‘strongly disagree’ to show us you are paying attention”). Sixty-six students failed at least one of these questions, leaving a final sample of 143 (M_age = 19.9 years, 51% female). This procedure was adapted from that of Oppenheimer, Meyvis, and Davidenko (2009), which found that 46% (study 1) and 35% (study 2) of participants failed this type of attention measure. While results in all studies are similar before and after eliminating participants who did not pass the attention check, we report only the results with exclusion criteria applied in the subsequent studies because this rule had been determined prior to data collection. The study manipulated one between-subject factor (personal control: low vs. high) and used a continuous measure of beliefs about parenting style.

Procedure. The first task manipulated personal control by randomly assigning participants to one of two writing tasks. In the high (low) control condition, we asked participants to write about something that happened to them that was completely under (out of) their control. Participants were asked to focus on the ways their behavior and choices were (were not) able to play a role in the outcomes they experienced. This manipulation is modeled after similar manipulations of personal control asking participants to write about an experience that was (vs. was not) under one’s control (Cutright and Samper 2014; Kay et al. 2008). After completing this task, we directed participants to the dependent measure, disguised as a study about learning from online videos. We informed participants that they would be
asked to watch a how-to video and would have the opportunity to snack on potato chips while watching the video. Specifically, we provided participants with a bag containing 20 Pringles potato chips and informed them that they could snack on the chips while watching the video, which lasted approximately four minutes. After the video, participants were instructed to hand the remaining potato chips back to the lab administrator. As consumption of unhealthy foods such as potato chips is a widely used measure of self-regulation (Geyskens et al. 2008; Salerno, Laran, and Janiszewski 2014; Tice, Bratslavsky, and Baumeister 2001; Tuk, Zhang, and Sweldens 2015), our dependent measure was the number of potato chips left uneaten (i.e., eating fewer chips implies greater self-regulation).

After watching the video, participants responded to a manipulation check for personal control asking them to think back to the writing task and indicate how much control they felt they had over the experiences they wrote about (“How much control did you feel you had over the event(s) you wrote about?” 1 = Very little control; 7 = A great deal of control). Participants also responded to demographic questions and a measure of depletion (personal control did not affect depletion; t < 1). Participants then responded to a measure of their beliefs about their parents’ style (see all items in Buri 1991). This scale comprises three 10 item subscales tapping the extent to which an individual’s parents are believed to fall under Baumrind’s (1971) permissive, authoritative, and authoritarian parenting styles. While the literature finds most differences on the reinforcement of self-regulation with regard to permissive versus authoritative styles (Patock-Peckham and Morgan-Lopez 2006; Spera 2005), we also included the measure of an authoritarian style, which is less comparable because it is low on parental support, for completion. This style, however, did not produce differences across the low and high control conditions (t < 1; p > .55). We asked participants to which extent they agreed or disagreed with each item as applied to them and their parents during their years of growing up at home. As examples, the permissive scale includes items such as “My parents did not view themselves as responsible for directing and guiding my behavior as I was growing up,” and the authoritative subscale includes items such as “As I was growing up my parents directed the activities and decisions of the children in the family through reasoning and discipline,” (1 = Strongly disagree; 7 = Strongly agree). Participants were then debriefed and thanked for their participation.

Results

Manipulation Check. An analysis of variance (ANOVA) on responses to the manipulation check for personal control showed that participants in the low personal control condition (M = 1.96, SD = 1.27) reported significantly lower control than participants in the high personal control condition (M = 5.92, SD = 1.11; F(1, 141) = 385.53, p < .01).

Self-Regulation. To obtain a measure of the extent to which participants believed that they were raised under a more demanding parenting style, we computed an index based on the difference between participants’ average authoritativeness ratings and average permissiveness ratings. In the analyses that follow, positive scores indicate more authoritative than permissive parenting (M = 1.56, SD = 1.26). To test whether the effect of low personal control on self-regulation depends on the extent to which participants believe their parents were more authoritative versus permissive, we regrssed the number of potato chips left uneaten on the personal control condition to which participants were assigned, the parenting style belief index, and their interaction.

Results revealed only an interaction of personal control and parenting style (b = −1.58, t(139) = −2.09, p = .04; figure 1). We probed this interaction through floodlight analysis (Spiller et al. 2013), which tests the simple effect of a dichotomous variable across the range of a continuous moderator. This analysis revealed that the effect of personal control was negative and significant at or above 3.85 on the parenting style belief index (b = −3.87, t(139) = −1.96, p = .05), indicating that participants who believed their parents were more demanding (vs. permissive) responded to low personal control by increasing self-regulation (i.e., they left more chips uneaten). However, when participants believed they had more permissive parents (i.e., low levels on the index), low personal control was associated with decreased self-regulation (i.e., they left fewer chips uneaten), but this effect was nonsignificant at various points of the index. It did, however, become marginally significant at the lowest level of the index for

FIGURE 1

INFLUENCE OF PERSONAL CONTROL AND BELIEFS ABOUT PARENTING STYLE ON SELF-REGULATION (STUDY 1)
this sample, which was $-1.80$ ($b = 5.05, t(139) = 1.87, p = .06$).

Discussion

Study 1 provides initial evidence that low control may increase self-regulation and this effect may be due to a willingness to compensate for the perceived violation of socialization experiences that low control represents. When participants believed they had demanding (i.e., authoritative) parents, they responded to low personal control by increasing self-regulation. However, when participants believed they had more permissive parents, the effect of low control on self-regulation was attenuated. Thus, the response to low personal control was consistent with the style of parenting participants recalled experiencing during their childhood socialization, which emphasize self-regulation to different degrees.

A potential limitation of this study is that, even though our procedure included intervening questions between the measure of self-regulation and the parenting style scale, participants experiencing low personal control and who exerted self-regulation reported their parents as more demanding, potentially to help justify their behavior. In the high control condition, participants would not have felt a need to justify their behavior. Therefore, in study 2, we further explore the role of consumers’ beliefs about socialization by specifically examining the lessons consumers recall learning from their parents and including a filler task between the self-regulation measure and the measure of childhood lessons.

STUDY 2

Another way to provide evidence for the role of socialization beliefs is to directly examine how differences in the extent to which individuals believe their parents emphasized self-regulation lead to different patterns of behavior as a response to low personal control. Given that low control motivates consumers to regain consistency with the lessons they believe were emphasized during childhood socialization, self-regulation should only increase in response to low control if individuals believe their parents emphasized self-regulation. For consumers who do not believe they learned as much from their parents about self-regulation, low control could instead lead to a decrease in self-regulation.

Method

Participants and Design. A total of 282 undergraduate business students participated as partial fulfillment of a course requirement. Sixteen participants failed the attention check described in study 1, leaving a final sample of 266 ($M_{\text{age}} = 20.2$ years; 63.2% female). The study manipulated one factor at two different levels (personal control: low vs. high) and had a continuous measure of beliefs about parental emphasis on self-regulation.

Procedure. Participants first completed a “Positive Memories Task” that involved writing about something positive that happened because of something they did (i.e., something they had control over) or did not do (i.e., something they did not have control over). This task has been shown to influence feelings of personal control without influencing participants’ mood (Cutright 2012; Kay et al. 2008). After completing this task, participants were told that, as a thank-you gift for participating in the study, they would be offered a choice between a Nature Valley granola bar and a pack of Oreo cookies, similar to measures of self-regulation choosing one snack over the other would require. The granola bar was associated with more self-regulation ($M = 4.19, SD = 1.90$) than the Oreos ($M = 3.15, SD = 1.98$; $F(1,80) = 14.8, p < .01$). After making their choice, participants responded to the manipulation check, which asked how much control they felt they had over the event they wrote about in the Positive Memories task ($1 = \text{Very little control}; 7 = \text{A great deal of control}$), and a filler task composed of an unrelated study run by other faculty at the university.

After the filler task, participants completed the measure tapping the extent to which they believed their parents emphasized self-regulation. This measure was adapted from the widely used trait self-regulation scale (Tangney, Baumeister, and Boone 2004), and it aimed to examine beliefs about self-regulation as taught by each participant’s parents: “Think back to when you were a child and the things your parents taught you. Please indicate the extent to which your parents taught you each of the following lessons when you were growing up” ($1 = \text{Not at all}; 5 = \text{Very much}$). They then responded to 9 items (not all 13 of Tangney et al.’s items lent themselves to adaptation) tapping the extent to which parents had taught self-regulation (e.g., “it is important to resist temptation,” “you must be able to work effectively toward long-term goals,” and “pleasure and fun will sometimes keep you from getting work done, and that’s okay”) [reverse scored; the appendix lists all 9 adapted items]. Responses were averaged to form a composite measure of the extent to which participants believed their parents taught self-regulation (vs. pleasure). After participants completed these items, they responded to demographic questions, were thanked for their time, and received their choice of the granola bar or Oreos.
Results

Manipulation Check. Participants perceived they had significantly more control in the high ($M = 5.75$, $SD = 1.17$) compared to the low personal control condition ($M = 2.94$, $SD = 1.87$, $F(1, 264) = 217.81, p < .01$).

Self-Regulation. We regressed participants’ choice of Oreos (coded 0) versus granola bar (coded 1) onto a dummy-coded variable indicating the personal control condition (0 = low control; 1 = high control), an average of the nine adapted self-regulation items ($M = 3.62$, $SD = 0.57$), and their interaction; variables were mean centered prior to analysis. We ran binary logistic regressions using Hayes’s (2013) PROCESS macro (model 1), which accommodates binary dependent measures and provides simple effects via floodlight analysis.

Results revealed only an interaction of personal control and beliefs about parental emphasis on self-regulation ($b = -1.10, Z = -2.46, p = .01$; figure 2). Floodlight analysis revealed that the effect of personal control was negative and significant at or above 4.21 on the emphasis on self-regulation scale ($b = - .72, Z = - 1.96, p = .05$), indicating that participants who believed their parents emphasized self-regulation responded to low personal control by increasing self-regulation (i.e., they were more likely to choose the granola bar). In contrast, when participants did not believe their parents emphasized self-regulation as much as seeking pleasure (at or below 2.73 on the emphasis on self-regulation scale), low personal control was associated with decreased self-regulation (i.e., they were more likely to choose Oreos; $b = .92, Z = 1.96, p = .05$). Looked at differently, when participants were in the low control condition, as beliefs about parents’ emphasis on self-regulation increased they were marginally more likely to choose Oreos ($b = -.54, Z = 1.73, p = .08$). The opposite pattern was observed in the high control condition ($b = -.56, Z = -1.75, p = .08$).

Trait Self-Regulation. It may be possible that our adapted self-regulation items are actually tapping individuals’ beliefs about their current trait levels of self-regulation, rather than what their parents taught them. At the beginning of each semester, students in our participant pool take a survey composed of common individual difference measures including trait self-regulation (Tangney et al. 2004). This allows researchers to match students’ data from the studies run later in the semester to their pre-semester data through students’ unique lab identification numbers. Having these data available, we used them to test whether a similar pattern of results would be obtained when trait self-regulation, instead of beliefs about parental emphasis on self-regulation, was entered as a moderator in the analysis. As expected, trait self-regulation and parents’ emphasis were positively correlated ($r = .18, p < .01$). Nevertheless, when trait self-regulation was entered in the logistic regression model predicting choice, results revealed no significant main effects or interactions ($p’s > .53$). We also entered trait self-regulation as a covariate in the analysis predicting choice with parents’ emphasis on self-regulation. Trait self-regulation was not a significant covariate ($p > .80$), and the interaction of personal control and parents’ emphasis remained significant ($p = .02$). These analyses suggest that it is perceptions of what a consumer was taught by parents when growing up, rather than one’s level of self-regulatory capacity as an adult, that predicts responses to low control.

Discussion

Study 2 provides additional support to our prediction that when people experience low personal control, they tend to exert more self-regulation. This effect, however, did not occur for people who believe their parents were very low on the extent to which they emphasized self-regulation. Consistent with our theory, when participants believed their parents deemphasized self-regulation, experiencing low control was less likely to lead to increased self-regulation, and even reduced self-regulation for participants whose beliefs reflected greater emphasis on seeking pleasure than self-regulation.

According to our theory, socialization compensation is driven by resolving the perceived inconsistency with childhood socialization that experiencing low control induces. Thus, consumers’ recollections and beliefs about the lessons emphasized during childhood determine whether self-regulation increases after experiencing low personal control. Given that both study 1 and study 2 measured beliefs about socialization experiences, in study 3 we examine the malleability of these socialization beliefs in influencing self-regulation. We test whether temporary beliefs about...
what parents teach their children also influence a consumer’s response to low control.

STUDY 3

In studies 1 and 2, we showed that variance in the extent to which an individual believes their parents emphasized self-regulation during childhood moderates the effect of low personal control on self-regulation. Given the span of childhood socialization and the variety of parent–child interactions that occur over its course, it may also be possible to manipulate beliefs about the importance of self-regulation during a consumer’s childhood experiences. That is, highlighting the idea that exerting self-regulation or seeking pleasure is an important lesson that parents teach children may temporarily make one type of lesson more salient and influence beliefs about the importance of these lessons in one’s childhood. As a result, consumers who are led to believe self-regulation is an important childhood lesson should show increased self-regulation when experiencing low control, but not when experiencing high control. Alternatively, consumers who are led to believe pleasure seeking is an important childhood lesson should show decreased self-regulation when experiencing low control, but not when experiencing high control.

Method

Participants and Design. A total of 140 undergraduate students participated in exchange for extra credit or partial fulfillment of course credit. Eleven participants failed the attention check, leaving a final sample of 129 participants (Mage = 20.7 years; 58.6% female). The design was a 2 (personal control: low versus high) × 2 (beliefs about socialization emphasis: self-regulation versus seeking pleasure) between-subjects design.

Procedure. To manipulate control, we used the same manipulation as in study 1. Participants were then directed to the socialization beliefs manipulation, disguised as a test of reading comprehension. In both socialization conditions, they read a brief excerpt ostensibly taken from a press release about a study investigating how parents teach children about “seeking what is most responsible to do when they want to” by “making choices that will make them happy.” Note that the manipulation did not tell participants that parents do not teach their children to self-regulate, but instead it just highlighted that parents purportedly also teach their children the value of pleasure. To increase the strength of the manipulation, we also used terminology emphasizing the consistency between the press release and participants’ experiences (e.g., “Did your parents teach you about the importance of pleasure and fun? They probably did”) and emphasized the generality of the finding described in the press release (the appendix provides the full texts).

After reading the passage, participants were directed to the same dependent measure used in study 1, involving consumption of potato chips while watching a video. Once participants finished the online videos task, we administered manipulation checks for the personal control and socialization manipulations. For the former, we asked participants, “Is it more important for parents to teach their children the value of pleasure and fun or to teach children the value of self-control” (1 = Pleasure and fun; 7 = Self-control). To test whether the socialization manipulation successfully highlighted different beliefs about socialization, we asked participants, “Is it more important for parents to teach their children the value of pleasure and fun or to teach children the value of self-control” (1 = Pleasure and fun; 7 = Self-control). We also asked whether participants believed the findings described in the article were true (1 = Not at all; 7 = Absolutely). Participants were then debriefed and thanked for their time on the study.

Results

Manipulation Checks. Participants in the high control condition (M = 5.28, SD = 1.56) reported significantly more control than did participants in the low control condition (M = 2.23, SD = 1.68; \(F(1, 125) = 110.36, p < .01\)). An ANOVA on the socialization manipulation check showed only an effect of the socialization beliefs manipulation (\(F(1, 125) = 32.50, p < .01\)), such that participants in the self-regulation socialization condition (M = 5.08, SD = 1.38) believed it is more important for parents to teach children self-regulation than did participants in the pleasure-seeking socialization condition (M = 3.44, SD = 1.81). Note that the mean for the self-regulation socialization condition is significantly higher than the midpoint of the scale (i.e., 4; \(t(60) = 6.12, p < .01\)), and the mean for the pleasure-seeking socialization condition is significantly below the midpoint of the scale (\(t(67) = -2.55, p = .01\)), indicating that the reading task successfully shifted beliefs in both conditions. The means of the question asking whether participants believed the findings to be true were above the midpoint of the scale both in the self-regulation (M = 5.00, SD = 1.29; \(t(60) = 6.05, p < .01\))
and in the pleasure-seeking condition ($M = 4.66, SD = 1.35; t(67) = 4.06, p < .01$).

**Self-Regulation.** An ANOVA on the number of chips remaining after watching the video revealed only an interaction between the personal control and socialization factors ($F(1, 125) = 6.66, p = .01$; figure 3). In the self-regulation socialization belief condition, individuals left more chips uneaten in the low control condition ($M = 10.28, SD = 5.45$), indicating marginally more self-regulation compared to the high control condition ($M = 7.48, SD = 6.60; F(1, 125) = 3.61, p = .06$). In the pleasure-seeking socialization belief condition, individuals left fewer chips uneaten in the low control condition ($M = 8.11, SD = 5.87$), indicating marginally less self-regulation compared to the high control condition ($M = 10.55, SD = 4.97; F(1, 125) = 3.05, p = .08$).

**Discussion**

The results of study 3 suggest that highlighting different aspects of what parents teach their children influences self-regulatory behavior under conditions of low control. When we encouraged participants to believe that parents teach children about self-regulation, experiencing low personal control led to decreased consumption of potato chips, indicating greater self-regulation. However, when participants were led to believe that most parents teach children the importance of pleasure and fun, participants in the low personal control condition ate more potato chips, indicating decreased self-regulation. These results build on the results of studies 1 and 2 by demonstrating that contextual information about childhood socialization lessons may be used to influence currently held beliefs about childhood socialization, therefore influencing consumers’ behavior when they experience low control.

**FIGURE 3**

**INFLUENCE OF PERSONAL CONTROL AND MANIPULATED BELIEFS ABOUT SELF-REGULATORY EMPHASIS FROM PARENTS ON SELF-REGULATION (STUDY 3)**

**GENERAL DISCUSSION**

This research reveals a novel mechanism activated by low personal control. This mechanism is the product of learning about personal control during childhood socialization and is driven by the motivation to compensate for the deficit that experiencing low control causes relative to what one believes they have learned during childhood socialization. Our studies show that consumers engage in self-regulation when facing this inconsistency (studies 1–3). This tendency is attenuated for consumers who believe their parents were more permissive (study 1), and it reverses for consumers who believe their parents did not emphasize self-regulation (study 2) or are led to believe that pleasure seeking is an important aspect of childhood socialization (study 3).

**Implications**

Our research contributes to the literatures on personal control and self-regulation. First, while extant research suggests that individuals are driven to regain control when personal control is threatened (Kay and Eibach 2013), our studies show that this is not the only consequence of low personal control. Behavior following a loss of personal control may also be directed at maintaining consistency with the lessons consumers associate with childhood socialization because low control is inconsistent with these lessons. This implies that research on personal control may want to adopt a broader view of the processes driving behavior following a loss of control. Although alternative sources of control certainly compensate for low control and influence subsequent behavior, we show that beliefs about childhood socialization may in fact drive this behavior. This may also help explain why individuals are so averse to viewing the world as random or meaningless—they are taught from a young age to believe just the opposite.

Second, our research contributes to the literature on self-regulation by relating regulatory behavior to one’s current level of personal control. Given the range of contexts that threaten consumers’ feelings of control and the ubiquity of situations requiring self-regulation, understanding how and why personal control influences self-regulation is an important advancement to both streams of research. In a broad sense, our findings imply that self-regulation may be exerted in the service of a general goal to compensate for perceived inconsistencies with childhood socialization. This insight builds upon previous research on factors that increase or decrease self-regulation (Laran 2010a, 2010b) by showing that self-regulation is fundamentally linked to experiences a consumer had during childhood. Documenting these links will help us understand additional contexts that make self-regulation more or less likely.
Additional evidence we obtained, described in the online appendix, further explores this link. Consumers use self-regulation to resolve the inconsistency induced by low personal control because lessons about self-regulation and personal control are learned in similar ways. This makes self-regulation an accessible compensatory mechanism for consumers who believe their parents emphasized self-regulation. For example, the developmental literature indicates that parents allow children more personal control as they age (Carrasco et al. 2011; Roberts et al. 1984), a trajectory that self-regulatory instruction also follows. In support of this link between personal control and self-regulation, Gralinski and Kopp (1993) discuss how adept parents are at using their children’s behavioral capacity (e.g., for self-regulation) to inform the level of restriction over children’s behavior. They write that the rules mothers set for their children “impressively dovetail” with children’s capacity to understand and control their behavior (582). Our conceptualization suggests that this link leads consumers to use self-regulation as a way to compensate for low personal control. In the two studies reported in the online appendix, we measured the extent to which participants believed their parents considered their self-regulatory abilities when deciding how much control they gave to their children (i.e., whether control was dependent on one’s use of this control to self-regulate). Results from two different populations (i.e., Amazon’s Mechanical Turk [MTurk] respondents, N = 100; undergraduate participants, N = 158) and two dependent measures (intertemporal choices with the possibility of actual winnings; consumption of M&Ms) showed significant interactions (p’s < .05) between personal control and whether participants believed their parents only afforded them control when they knew their children would be able to exert self-regulatory behavior. The effect of low control on self-regulation was only obtained when a perceived relationship between personal control and self-regulation was present, and it disappeared when participants believed their parents afforded personal control independently of whether they would be able to exert self-regulatory behavior. This indicates that increased self-regulation after experiencing low control depends on a perceived link between control and self-regulation during one’s childhood.

Our findings also have implications for consumers and practitioners. It may be possible to benefit consumers by applying our findings to contexts requiring self-regulation. As examples, a gym that restricts consumers’ personal control by requiring exercises to be done in a specific order may make people work out longer, and a dieting program that reduces control with a preset menu may help individuals refrain from cheating. In addition, consumers may benefit from products and services that rely on self-regulatory behavior (e.g., self-taught foreign language courses, weight loss programs) and are advertised in a way that references inconsistency with childhood socialization (e.g., “What did your mom say about eating your vegetables?”), particularly when applied to settings in which consumers have little personal control (e.g., public transportation in rush hour).

The results of study 3, showing that external information can shift consumers’ beliefs about childhood socialization, also suggest several implications. For example, marketers may have more control over consumers’ responses to a wide range of products and services that rely on self-regulation or encourage pleasure seeking by considering the extent to which promotional materials reference the socialization of these behaviors. Similarly, policymakers could use this knowledge by ensuring that consumers’ beliefs about childhood lessons are not influenced by marketing communications, which could interfere with their ability to self-regulate.

Given that the consumption environment is full of experiences that defy socialization’s lessons, this research suggests that many consumption contexts may be impacted by perceived socialization deficits. For example, many features of online or in-store retail environments restrict personal control (e.g., Internet connectivity problems, in-store crowding, stockouts). Future research could examine the extent to which self-regulation is affected when specific types of marketing contexts threaten personal control. Other violations of lessons associated with childhood socialization (e.g., resolving conflicts aggressively) may also influence subsequent behavior. For example, our account predicts that a consumer who has a disagreement at work and behaves aggressively would make more regulated choices when going grocery shopping later because the aggressive behavior likely violates what the consumer’s parents taught them about social relationships during childhood socialization (Maccoby and Martin 1983). Of course, this prediction is inconsistent with those of other lines of research (e.g., negative mood resulting from conflict could lead to less regulated choices), an issue that could be investigated in the future.

An additional domain informed by our results is materialism. Work in consumer socialization has examined the development and drivers of materialism (John 1999; Richins and Chaplin 2015) and the role that parents play in this development. John (1999) discusses how children’s materialistic behaviors become more sophisticated as they age and are shaped by family communication styles (Moore and Moschis 1981; Moschis and Moore 1979). Similarly, Richins and Chaplin (2015; study 3) provide evidence for why parenting practices during childhood become associated with adult consumers’ materialism. Findings indicate that receiving material rewards as children increases adult consumers’ beliefs that material goods are an important way to express and transform one’s identity, which has implications for consumer research. Specifically, when considered alongside the present findings, this suggests that consumers may engage in
materialistic behaviors when facing a socialization deficit if they recall receiving material rewards as children. Researchers could examine (1) other features of childhood socialization that can be detected in adult consumers, and (2) which types of socialized behaviors are most likely to be recruited when another aspect of socialization is threatened.

Future Research Implications

The findings suggest several avenues for future research. For example, while we did not find an effect of socioeconomic status on self-regulation, which was measured in both studies we report in the online appendix, juxtaposing our findings against recent work by Mittal and Griskevicius (2014) leads to intriguing possibilities about the interactions between childhood socioeconomic status and (the sources of) feeling low personal control. Mittal and Griskevicius (2014) showed that individuals from poorer backgrounds behave impulsively when experiencing environmental uncertainty. While uncertainty is part of, but not the same as, low control (i.e., control is broader in that it involves establishing relationships between actions and outcomes), the compensation process activated after a loss of control may depend on the source of the control threat. When generic sources threaten personal control, our results suggest that socialization compensation will be activated and self-regulation will increase. However, when personal control is threatened by economic sources, individuals from different economic backgrounds may react differently, such that low childhood socioeconomic status individuals will behave more impulsively. Testing these predictions would be an interesting follow-up to the present research.

While our investigation focused on early childhood socialization and the primary role that parents play (Maccoby 1992), the process of socialization continues throughout life and involves other actors (e.g., peers, teachers, the mass media; Beaudoin 2014; Grusec 2011; Maccoby and Martin 1983). This raises intriguing questions. For instance, to what extent can lessons learned from other socialization agents be recruited for behavior following a violation of socialization? Given that the socialization compensation process is driven by individuals’ beliefs about childhood socialization, it would be interesting to examine whether beliefs relating to different points of the socialization process influence compensatory behavior to the same degree. Future research could address this question by examining the extent to which behavior consistent with aspects of socialization learned later in life (e.g., seeking romantic involvement, an important aspect of adolescent socialization; Aikins, Simon, and Prinstein 2010) can compensate for the lessons learned during early childhood.

Another important direction for future research is to further explore the relationships between actual childhood socialization experiences and beliefs about childhood socialization. Given that we were able to manipulate momentary beliefs in study 3, it seems that beliefs about what one has learned as a child can actually be more important than firsthand experiences. Longitudinal research investigating (1) people’s actual experiences growing up, (2) how perceptions of childhood socialization experiences change over time, (3) the malleability of various beliefs about childhood, and (4) the explanatory power of beliefs versus actual experiences in various circumstances would thus make a valuable contribution to the consumer psychology literature. Relatedly, one potential limitation of the studies described earlier is reliance on undergraduate populations. Thus, the replication of findings with a more diverse and representative sample would suggest that this effect is not restricted to participants who are relatively young and closer in time to their childhood. To this end, we tested whether the effect of personal control on self-regulation was affected by participants’ age in the study using MTurk respondents ($M_{age} = 34$ years), described in the online appendix. Age was not a significant covariate ($p > .62$), and the interaction of personal control and the perceived link between control and self-regulation remained significant when controlling for age ($p < .05$). In addition, age did not moderate the two-way interaction of personal control and the perceived link ($p > .74$).

Future research could also examine the factors that determine when individuals are more versus less likely to cope with violations of childhood socialization as predicted by our theory. For example, an interesting application of this theory would examine how current parents, especially those who engage in different parenting strategies than the strategies used by their own parents, behave when a lesson from childhood is violated. Imagine a parent whose recollection of their own parents suggests an authoritative style but takes a more permissive approach with her own children, not emphasizing self-regulation as much. Under what circumstances will this individual react to a violation of childhood socialization by following their current beliefs about what is important to teach children versus by following what they recall learning during childhood? A general understanding of how and when the childhood (vs. adult) version of one’s self determines current behavior is an exciting area of future research that deserves further investigation.

Conclusion

In addition to the specific directions for future research just suggested, this work suggests a more general direction whereby theories from distal but related fields are incorporated in our study of consumer behavior. While consumer research has not put much emphasis on consumers’ formative years, childhood socialization has a powerful and diverse impact on an array of adult behaviors (Maccoby et al. 2010).
that one of the most important things that parents teach their children is to behave in ways that promote well-being. In fact, following several nationwide studies (Rodrigo et al. 2014), researchers concluded that nearly all parents and caregivers teach their children about seeking what is most responsible to do when they need to. Just by interacting with children—at mealtimes, while teaching new words, even during playtime—concepts relating to self-control are automatically taught by parents and learned by children. In conclusion, this research provides evidence that parents teach young children the importance of making choices that will benefit them in the future.

**Pleasure-Seeking Socialization Condition:**

Did your parents teach you about the importance of pleasure and fun? They probably did. Recent research by developmental psychologists at the University of Oxford suggests that one of the most important things that parents teach their children is to behave in ways that promote happiness. In fact, following several nationwide studies (Rodrigo et al. 2014), researchers concluded that nearly all parents and caregivers teach their children about seeking what is most pleasurable to do when they want to. Just by interacting with children—at mealtimes, during playtime, even while teaching new words—concepts relating to pleasure are automatically taught by parents and learned by children. In conclusion, this research provides evidence that parents teach young children the importance of making choices that will make them happy.

**REFERENCES**


