

Parenting Motivation and Consumer Decision-Making

YEXIN JESSICA LI
KELLY L. HAWS
VLADAS GRISKEVICIUS

Parenting has been a central activity throughout human history, yet little research has examined the parental care motivation system on preferences and decision-making. Because successful parenting involves caring for both a child's immediate and long-term needs, we consider whether parenting motivation leads people to focus more on the present or on the future. **A series of five experiments reveals that parenting motivation activates gender-specific stereotypes of parental roles,** leading men to be more future-focused and women to be more present-focused. These shifts in temporal focus produce gender differences in temporal preferences, as manifested in intertemporal decisions (preferences for smaller, immediate rewards vs. larger, future ones) and attitudes toward a marketplace entity with inherent temporal tradeoffs (i.e., rent-to-own businesses). Reversing gender role stereotypes also reverses these gender differences, suggesting downstream effects of parenting motivation may be due, at least in part, to stereotypes about familial division of labor.

Keywords: parenting motivation, gender stereotypes, intertemporal choice

Images of newborns, babies, and toddlers are ubiquitous in marketing. A recent print ad by a Fortune 100 financial planning company, for example, features a cherub-cheeked toddler and urges consumers to think about their dreams. Another insurance commercial portrays sleepy newborns and exclaims that “one look can change the way you see the

world.” Such depictions are typically perceived as cute and often trigger thoughts about parenting. But while we are beginning to understand how consumers respond to cuteness in products (Nenkov and Scott 2014), we know little about how parenting motivation influences consumer decision-making. To address this gap in the literature, the current research investigates how parental roles and motivations might impact temporal decisions (Frederick, Loewenstein, and O'Donoghue 2002; Thaler 1981). Temporal tradeoffs should be especially critical in a parenting context due to the responsibilities required to successfully raise children to maturity. We consider whether prompting consumers to adopt a parenting motivation leads to a greater focus on the present or a greater focus on the future.

Drawing on cross-disciplinary research on parenting, motivation, and decision-making, we develop a set of hypotheses addressing when, why, and for whom parenting motivation provokes a focus on immediate versus future rewards. Our theorizing predicts that parenting motivation stimulates temporal foci that are markedly different for men and women due to pervasive stereotypes of gender-specific parenting responsibilities. As a result, we show that elicitation of parenting motivation leads to

Yexin Jessica Li (Jessica.Li@ku.edu) is an assistant professor of marketing at the KU School of Business, University of Kansas, 1654 Naismith Drive, Lawrence, KS 66045. Kelly L. Haws (kelly.haws@owen.vanderbilt.edu) is a professor of marketing and Chancellor's Faculty Fellow at the Owen Graduate School of Management, Vanderbilt University, 401 21st Avenue South Nashville, TN 37203. Vladas Griskevicius is a professor of marketing and Carlson Foundation Chair at the Carlson School of Management, University of Minnesota, 321 Nineteenth Avenue South, Minneapolis, MN 55435. Please address correspondence to Yexin Jessica Li. This research was supported by the University of Kansas General Research Fund. The authors are grateful to the editor, the associate editor, and the review team for their valuable feedback. Supplementary materials are included in the web appendix accompanying the online version of this article.

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gender-specific temporal choices and product preferences. The current research thus provides a framework to understand how parenting motivation affects decision-making. In addition, we contribute to the growing literature on gender differences and stereotypes on consumption (Brough et al. 2016; Dahl, Sengupta, and Vohs 2009; Gal and Wilkie 2010; Johar, Moreau, and Schwarz 2003; Nikolova and Lamberton 2016), as well as research on the importance of parenting in consumer behavior (Durante et al. 2015; Moore, Wilkie, and Desrochers 2016).

PARENTING AS A FUNDAMENTAL MOTIVATION

Parenting has been a central activity throughout human history, contributing immensely to offspring survival and well-being (Geary 2000; Hill and Hurtado 1996). Human caregiving is facilitated by a parental care motivational system, which is fundamental to parenting and caregiving, and is also believed to serve as the foundation for empathy, compassion, and altruistic behavior (Batson 2006; Buckels et al. 2015; Goetz, Keltner, and Simon-Thomas 2010; Preston 2013). The parental care motivational system, which we refer to as parenting motivation, is a set of affective and cognitive mechanisms aimed to take care of the young, who tend to be particularly vulnerable (Buckels et al. 2015; Griskevicius and Kenrick 2013; Kenrick et al. 2010). Parenting motivation tends to be activated frequently after a person becomes a parent. For instance, parenting is accompanied by specific hormonal changes, such as shifts in oxytocin and testosterone (Atzil, Hendler, and Feldman 2011; Gordon et al. 2010; Gray, Yang, and Pope 2006), and functional behavioral responses such as increased risk aversion (Eibach and Mock 2011; Fessler et al. 2014), that facilitate childcare.

All human adults possess the foundations necessary for parental care, regardless of their current parental status (Gilead and Liberman 2014; Senese et al. 2013). *Kindchenschema* (baby schema; Lorenz 1943/2010) is a set of infantile features including a large head, big eyes, and round forehead that, when viewed, activates parenting motivation and leads people to behave similarly to parents. For example, baby animals that display kindchenschema cause people to exhibit the kinds of tendencies shown by parents, such as being more cautious and careful (Nittono et al. 2012; Sherman, Haidt, and Coan 2009). The propensity for cute images to evoke cognitions and actions that facilitate caregiving is in line with research showing that exposure to certain cues can strengthen goals relevant to the cue and prompt goal-directed behavior (Chartrand et al. 2008; Fitzsimons, Chartrand, and Fitzsimons 2008; Shah, Kruglanski, and Friedman 2002).

Taken together, past research suggests that parenting motivation is fundamental to humans, influencing the

behaviors of parents and nonparents alike. Because successful parenting involves providing both immediate and future care, we consider whether activating parenting motivation prompts adults to be more focused on the present or the future. We propose that stereotypes about division of familial responsibility lead men and women to think about different parenting goals and ultimately influence their temporal preferences in diverging ways.

IMMEDIATE VERSUS FUTURE PARENTING GOALS AND GENDER

Immediate versus Future Parenting Goals

The hierarchical model of motivation (Elliot 2006; Elliot and Church 1997) theorizes that motives and goals exert distinct but complementary influences on behavior. Motives are general tendencies that orient behavior, whereas goals provide specific guidelines for how the motive may be fulfilled. Elliot, Gable, and Mapes (2006, 379) argue that “motives energize behavior and distally influence outcomes by prompting the adoption of specific goals; goals, in turn, direct behavior and exert a proximal influence on outcomes.” Because human offspring have a long developmental period and rely heavily on caregivers at the early stages of life, two goals paramount to child survival and well-being are meeting immediate needs and preparing for future needs. Both goals address the motivation to raise healthy, happy offspring, but each goal differs in terms of its focal time frame.

Immediate Parenting Goals. Immediate parenting goals address the essential, immediate needs of offspring and require caregivers to be present-focused. Humans are born completely dependent on their caregivers, and remain exceptionally vulnerable for years. Infants not only are unable to feed and take care of themselves, but also lack the ability to effectively communicate with others. Caregivers must continually assess the current situation in order to make sure their dependent’s essential needs are met. Satisfying immediate needs is vital not only for offspring survival, but for healthy development as well (Ainsworth, Bell, and Stayton 1974).

The suite of prompt, appropriate, and timely parental responses is known in the literature as maternal sensitivity or maternal responsiveness (Bowlby 1969; De Wolff and van IJzendoorn 1997). Maternal responsiveness predicts a range of important outcomes that include attachment security, language development, social competence, emotional well-being, and cognitive and communicative ability (Beckwith, Cohen, and Hamilton 1999; Bradley and Corwyn 2007; Tamis-LeMonda, Bornstein, and Baumwell 2001). Thus, there is good reason to believe that parenting motivation might stimulate immediate caregiving goals.

Future Parenting Goals. While parenting requires caring for a child's immediate needs, successful child-rearing involves more than thinking about his or her needs at the present moment. Effective parenting also involves planning for the future, as human offspring do not reach physical and psychological maturity for well over a decade (Steinberg 2007; Van der Graaff et al. 2014). Indeed, long-term parenting duties that promote the child's personal development and eventual independence are important across cultures (Cheah and Chirkov 2008; Graf et al. 2014; Julian, McKenry, and McKelvey 1994), and may involve financing a solid education, providing sufficient health care, and furnishing the ability to pursue activities and interests. Consequently, while parenting motivation is related to fulfilling a child's immediate needs, it is also related to satisfying future ones.

Parenting Gender Norms and Stereotypes

Although it is possible for one caregiver to satisfy both immediate and future goals, we propose that stereotypes about familial division of labor may elicit differences in perceptions of parenting responsibilities among men and women. Mothers tend to be the primary caregivers and perform most of the childcare tasks across the globe, including in the majority of Western households (Acock and Demo 1994; Biller 1993; Croft et al. 2014; Geary 2000; Katz-Wise, Priess, and Hyde 2010; Patterson, Sutfin, and Fulcher 2004). Despite movement toward gender equality, this gender-specific division of labor continues to hold across a wide range of family types and demographic variables (Milkie et al. 2002; Nock and Kingston 1988; Nomaguchi and Milkie 2003; Tinsley, Howell, and Amanatullah 2015). For example, even in dual-earner families where both parents work full-time, mothers continue to be the primary caregivers for their children (Yavorsky, Dush, and Schoppe-Sullivan 2015) and report performing twice as much childcare as fathers (Coltrane 2000). Such gender-specific roles in parenting persist even among highly educated, career-driven women (Ferriman, Lubinski, and Benbow 2009; Katz-Wise et al. 2010). The growing phenomenon of women performing the majority of household labor in addition to working outside of the home is known in the sociology literature as the "second shift" (Hochschild and Machung 2012).

Compared to mothers, fathers tend to be less involved in the daily care and supervision of children across societies (Geary 2000; LaRossa 1986). Instead, they typically engage in behaviors thought to improve children's future success (Ross and Taylor 1989; Shenk and Scelza 2012). In particular, fathers are more likely to fulfill a child's future needs through resource acquisition, such as being the family breadwinner. Anthropological research finds that, whereas mothers focus on the child's more immediate needs that ensure the survival of offspring, fathers focus on

providing resources and status, which help ensure long-term benefits for the family (Flinn 1992; Geary 2000; Kaplan et al. 2000). Across modern Western societies or nomadic, hunter-gatherer, and pastoral societies, a father's wealth and social standing is a strong predictor of his offspring's success in adulthood (Hill and Hurtado 1996).

Gender differences in the type of parenting responsibilities provided by mothers and fathers are especially pronounced for infants and toddlers (Crano and Aronoff 1978; Yavorsky et al. 2015). These differences partly stem from biological constraints such as breastfeeding. However, even when gender differences in child feeding are accounted for, mothers interact about twice as much with their infants and provide routine care three to four times more frequently than fathers (Belsky, Gilstrap, and Rovine 1984). Although immediate offspring care can be provided by either females or males, it is telling that developmental psychologists characterize responsiveness to babies as "maternal sensitivity" and "maternal responsiveness" (Bowlby 1969; De Wolff and van IJzendoorn 1997; Kelly et al. 1996).

Importantly, there are exceptions to normative gender roles, such as the Aka Pygmy tribe in central Africa (Hewlett 1991). In addition, American fathers are more involved in childcare than they were a few decades ago. Approximately 16% of stay-at-home-parents in 2012 were fathers, compared to just 10% in 1989 (Livingston 2014). However, these statistics also indicate that nontraditional roles in which fathers are the primary caregivers and mothers are the primary breadwinners still comprise the minority of family structures in the US. As a starting point of the current research, we predict that women tend to be stereotyped as more responsible for fulfilling a child's immediate needs, whereas men tend to be stereotyped as more responsible for meeting a child's future needs.

Pilot Study of Gender-Specific Parenting Stereotypes

To test the possibility of gender role stereotypes in providing immediate and future parenting care, we conducted a pilot study. The goal of this study was to empirically examine the hypothesis that, even among nonparents, mothers are stereotyped to be more responsible for providing for immediate offspring needs, whereas fathers are stereotyped to be more responsible for providing for future offspring needs. Further, we wanted to test the prediction that these stereotypes are held by both men and women.

One hundred twelve students from a large university in the United States participated in the study (43 female, $M_{\text{age}} = 20.8$, two unreported age, three parents). Participants were given the following question stem, "Generally, what do you think is the primary parenting responsibility of mothers [fathers]?" on a scale from 1 = definitely not responsible to 9 = definitely responsible. Five items measured provision of immediate needs:

“Providing for the child’s immediate, day-to-day needs,” “Making sure the child is comfortable right now,” “Making sure the child has his/her needs met right now,” “Making sure the child’s immediate needs are met,” and “Focusing on the child’s present needs” ($\alpha_{\text{mother_present}} = .94$, $\alpha_{\text{father_present}} = .93$). Five other items measured provision of future needs: “Providing for the child’s future needs,” “Making sure the child will be able to be comfortable in the future,” “Making sure the child will be prepared to meet his/her needs in the future,” “Making sure the child’s future needs are met,” and “Focusing on preparing for the child’s future needs” ($\alpha_{\text{mother_future}} = .93$, $\alpha_{\text{father_future}} = .94$). All participants responded to questions about immediate and future needs for both mothers and fathers.

An examination of the means indicated that participants expected both mothers and fathers to provide substantially for both a child’s immediate and future needs. However, although the means in all conditions were above the midpoint of the scale, a 2 (parent gender: mother, father; within-subjects) \times 2 (responsibility type: immediate, future; within-subjects) \times 2 (participant gender: male, female; between-subjects) mixed analysis of variance (ANOVA) revealed a two-way interaction between parent gender and responsibility type, $F(1, 110) = 36.6$, $p < .001$, $\eta_p^2 = .25$ (figure 1).

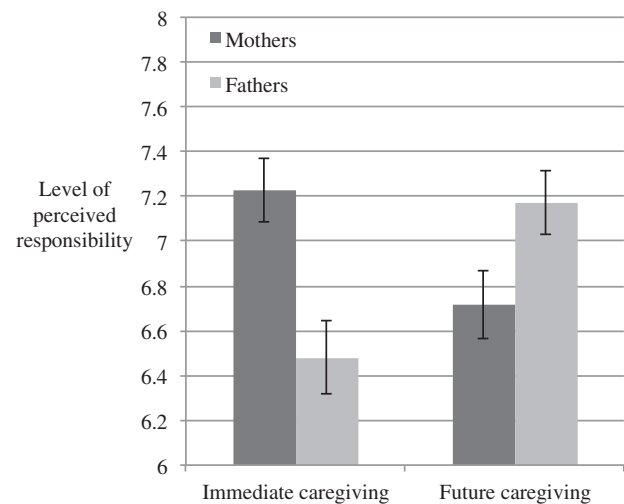
Consistent with predictions, mothers (vs. fathers) were expected to be more responsible for caring for the child’s immediate needs ($M_{\text{mother}} = 7.23$, $M_{\text{father}} = 6.48$; $F(1, 111) = 42.7$, $p < .001$, $\eta_p^2 = .28$), and less responsible for caring for the child’s future needs ($M_{\text{mother}} = 6.71$, $M_{\text{father}} = 7.17$; $F(1, 111) = 16.7$, $p < .001$, $\eta_p^2 = .13$). Within gender, mothers were rated as more responsible for the child’s immediate than future needs ($F(1, 111) = 17.4$, $p < .001$, $\eta_p^2 = .14$), whereas fathers were more responsible for the child’s future (vs. immediate) needs ($F(1, 111) = 23.4$, $p < .001$, $\eta_p^2 = .17$). The three-way interaction with participant gender was not significant ($p > .25$), demonstrating that male and female participants responded similarly. Thus, when considering the specific needs of their children, our pilot study found that both men and women expected mothers to focus more on a child’s immediate needs, while both men and women expected fathers to focus more on a child’s future needs.

Current Research and Predictions

A synthesis of the prior literature and the results of our pilot study suggest that parenting motivation should activate gender-specific parenting goals related to attending to a child’s immediate versus future needs. Although these goals are initially tied to childcare, we expect parenting motivation to influence a more fundamental underlying orientation toward decision-making by shifting one’s *temporal focus*, or the relative emphasis one places on the present versus the future (Mogilner, Aaker, and Kamvar 2012; Winterich and Haws 2011). Temporally activated schema

FIGURE 1

PERCEIVED IMMEDIATE AND FUTURE CAREGIVING RESPONSIBILITY OF MOTHERS AND FATHERS (PILOT STUDY)



such as immediate and future caregiving may shape subsequent judgments in a different domain (Schwarz 2004). For example, recent research demonstrates that once a goal-related concept (i.e., self-control) is activated, it can influence other inferences that may or may not be directly related (Sela, Berger, and Kim 2017). Further, goal activation induces perceptions and cognitions that facilitate the achievement of the goal (Klinger 1975; Ratneshwar et al. 1997). Compared to future-focused individuals, people who are present-focused prioritize immediate outcomes and attach more importance to present versus future consequences (Holman and Silver 1998; Strathman et al. 1994; Zimbardo, Keough, and Boyd 1997). Hence, activating immediate parenting goals should prompt an instrumental focus on the present through the prioritization of immediate needs and concerns. Analogously, achieving future parenting goals necessitates an emphasis on future needs and should thus lead people to be more future-focused. Although temporal focus has primarily been studied as an individual difference trait, it is influenced by factors such as appetitive stimuli and discrete emotions (Li 2008; Mogilner et al. 2012; Winterich and Haws 2011). We hypothesize that activating parenting motivation shifts people’s temporal focus in ways consistent with the gender-specific stereotypes of mothers and fathers. Specifically:

H1: Activating parenting motivation should lead to gender differences in temporal focus, such that women will be more present-focused than men.

If parenting motivation alters temporal focus, it might lead to gender-specific product preferences and

decision-making patterns even when the decisions do not concern the caretaking of children. Previous research demonstrates that shifting general temporal focus can impact decisions across a variety of contexts. For example, Mogilner et al. (2012) found that participants primed to be focused on the future were more likely to choose exciting products, while those primed to be focused on the present preferred calming options. Research also suggests temporal focus influences preferences for immediate versus future rewards. Joireman, Sprott, and Spangenberg (2005) found a significant relationship between temporal orientation and delay discounting, whereby future-oriented individuals discounted the future less and were more willing to wait for delayed rewards than present-oriented individuals. Finally, Winterich and Haws (2011) demonstrated that activating different temporal foci has implications for self-control. When people experience future-focused emotions, such as hopefulness, they are better able to exert self-control and less likely to consume unhealthy food than when they experience past-focused emotions like pride. These studies suggest people are more likely to eschew immediate temptations in favor of future benefits when they are future-focused. In sum, we hypothesize that parenting motivation should lead to gender-specific differences in temporal decision-making and product preferences because parenting motivation shifts men's and women's temporal focus in opposite directions. Formally:

H2a: Activating parenting motivation should lead to gender differences in intertemporal choice and product preferences, such that women will prefer options with more immediate rewards than men.

H2b: The effect of parenting motivation on intertemporal choice and product preferences should be mediated by a gender-specific shift in temporal focus.

As noted earlier, our hypotheses are predicated on the notion that parenting motivation activates gender-specific parenting stereotypes. Consistent with our pilot study and prior literatures, these stereotypes include mothers attending more to the immediate needs of the child and fathers attending more to the future needs of the child (Croft et al. 2014; Ferriman et al. 2009; Geary 2000; Tinsley et al. 2015; Yavorsky et al. 2015). Given the centrality of stereotypes in how parenting motivation influences intertemporal choice, it is important to determine the specific stereotypes that are driving the effects. That is, are the proposed effects of parenting motivation on temporal focus and intertemporal choice driven by stereotypes specific to *gender* per se, or are they driven by stereotypes that are more directly tied to the specific *parenting roles* associated with gender? Broadening beyond gender to the underlying roles associated with parenting will also allow our theory to apply across cultures, to generalize to same-sex couples with children, and to hold up over time if gender roles continue to shift.

Traditional two-parent family structures typically consist of parents playing two different roles: a primary caregiver who cares for a child's immediate needs and a breadwinner who is responsible for securing resources and maintaining the family's social status over time. Although the primary caregiver is typically stereotyped to be the mother's role and the breadwinner is typically stereotyped to be the father's role, we propose that it is the role of caregiver and breadwinner, rather than the parent's gender, that is associated with immediate and future caregiving responsibilities. Hence, activating thoughts of being a primary caregiver should lead a person to be more present-focused, while activating thoughts of being a breadwinner should lead a person to become more future-focused, regardless of whether this person is a man or a woman.

To summarize, we propose that activating parenting motivation triggers a temporal focus consistent with stereotype-*typical* parenting roles adopted by men and women, as found in the pilot study. However, the influence of parenting motivation may not be driven by stereotypes of the gender of the parent per se (whether someone is a mother or a father), but is instead likely to be driven by the stereotype of the role of the parent (primary caretaker vs. breadwinner), regardless of whether that role is performed by a man or a woman. Based on this reasoning, we contend that activating stereotype-*atypical* roles in which mothers are breadwinners and fathers are primary caregivers should erase or even reverse our focal effect. Thoughts of a parent who is a breadwinner should activate a future focus, regardless of whether the breadwinner is a man or woman. By contrast, thoughts of a parent who is a primary caregiver should activate a present focus, regardless of whether the primary caretaker is a woman or a man. Formally:

H3: Whereas parenting motivation associated with stereotype-*typical* parenting roles should lead women to be more present-focused and prefer options with more immediate rewards than men, parenting motivation associated with stereotype-*atypical* parenting roles should reverse the effect, leading women to be more future-focused and prefer options with more future rewards than men.

OVERVIEW OF EXPERIMENTS

We test our hypotheses in five experiments. Study 1 tests hypothesis 1 by activating parenting motivation and measuring general temporal focus. Study 2 tests hypothesis 2a using a previously validated intertemporal choice task. Study 3 examines the effect of parenting motivation on attitudes toward a marketplace entity associated with a distinct temporal perspective, thereby allowing us to generalize hypothesis 2a to another important marketing outcome. Study 4 rules out alternative hypotheses and tests hypothesis 2b by examining the mediating role of temporal focus on the effect of parenting motivation on intertemporal

decisions. Finally, study 5 manipulates parenting roles to examine how temporal foci and preferences shift when men and women are placed in stereotype-typical versus stereotype-atypical roles, thereby testing hypothesis 3.

STUDY 1

In study 1, we investigate how parenting motivation affects temporal focus. Consistent with hypothesis 1, we predicted that activating parenting motivation should lead women to be more present-focused than men.

Participants and Method

Two hundred four participants (121 female; $M_{\text{age}} = 37.3$; 110 parents, three unknown parental status) were recruited from Amazon Mechanical Turk (MTurk) to participate in a 2 (motivation: parenting, control) \times 2 (participant sex: male, female) between-subjects experiment.

Motivation Manipulation. Previous research finds that kindchenschema activates parenting proclivities in adults (Brosch, Sander, and Scherer 2007; Glocker et al. 2009; Lorenz 1943/2010; Sherman, Haidt, and Coan 2009) and that human infant faces, in particular, elicit implicit responses in both parents and nonparents (Senese et al. 2013). In this study, we used a set of 12 images of baby faces of varying ethnicities to induce parenting motivation. To strengthen the motivation, participants were asked to imagine being the parent of one of these babies. They chose the baby that looks most like it could be their child, gave their baby a name, and wrote about what it would be like to be the baby's parent.

To parallel the parenting condition, participants in the control condition were asked to imagine moving to a new place and wanting to make friends. They viewed 12 images of adults of varying ethnicities (six men and six women) and were instructed to choose the person that looks most like he/she could be their new friend. To keep the control condition procedures as similar as possible to the parenting condition, participants gave this person a name and wrote about what it would be like to be friends with this person (see appendix A for stimuli). This control condition was designed to mirror the parenting condition by including a social component and transitional life stage, which helps us to rule out the alternative hypothesis that any interpersonal context, not just parenting, causes women to be more present-focused and prefer more immediate rewards than men.

Temporal Focus Measure. To assess temporal focus, we used an expanded measure from Winterich and Haws (2011; study 3). Specifically, immediately after the motivation manipulation, participants reported the importance of the present versus the future using five items: Immediate, day-to-day needs (1) – Future needs (9); Being comfortable

right now (1) – Being comfortable in the future (9); Focusing on present needs (1) – Focusing on future needs (9); Making sure needs are met right now (1) – Making sure needs are met in the future (9); Making sure immediate needs are met (1) – Making sure future needs are met (9). These items were aggregated to form the temporal focus index ($\alpha = .93$).

Manipulation Check. At the end of the study, participants completed a manipulation check by reporting the extent to which the imagination task made them think about “being a parent,” “taking care of a child,” and “parenting responsibilities” (1 = not at all, 7 = very much). These three items were aggregated to form the parenting thoughts index ($\alpha = .99$). Participants also reported the extent to which the task made them feel “nurturant,” “loving,” “responsible,” and “devoted” (1 = not at all, 7 = very much), which were aggregated to form the parenting emotions index ($\alpha = .89$).

Results and Discussion

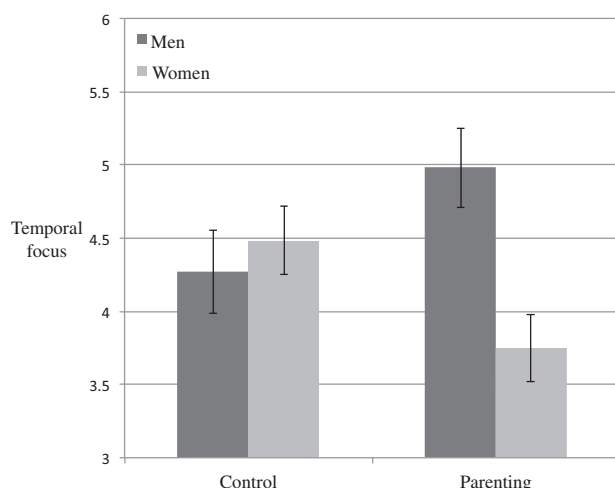
Manipulation Check. Two participants did not complete the manipulation check. A 2 (motivation: control, parenting) \times 2 (participant sex: male, female) ANOVA on the parenting thoughts index revealed a main effect of condition whereby the parenting motivation condition elicited more parenting thoughts than the control condition ($M_{\text{parenting}} = 6.26$, $M_{\text{control}} = 2.68$, $F(1, 198) = 245.1$, $p < .001$, $\eta_p^2 = .55$). Findings also revealed a significant main effect of the manipulation on parenting emotions, whereby the parenting motivation condition elicited more parenting emotions than the control condition ($M_{\text{parenting}} = 5.23$, $M_{\text{control}} = 4.01$, $F(1, 198) = 31.8$, $p < .001$, $\eta_p^2 = .14$). No other main effects or interactions were significant ($ps > .13$).

Temporal Focus. A 2 (motivation: control, parenting) \times 2 (participant sex: male, female) ANOVA on the temporal focus index revealed a main effect of participant sex, whereby women were more present-focused than men ($F(1, 200) = 3.98$, $p = .047$). There was no main effect of motivation ($F(1, 200) = .003$, $p = .958$). Importantly, consistent with hypothesis 1, there was a significant interaction between motivation and participant gender, $F(1, 200) = 7.94$, $p = .005$, $\eta_p^2 = .04$. As shown in figure 2, contrast analyses revealed that women were more present-focused than men in the parenting motivation condition ($M_{\text{women}} = 3.75$, $M_{\text{men}} = 4.98$; $F(1, 200) = 12.1$, $p = .001$, $\eta_p^2 = .06$), but not in the control condition ($F(1, 200) = .326$, $p = .569$) (figure 2).

We also found an effect of motivation for women, such that women were more present-focused in the parenting (vs. control) motivation condition ($M_{\text{parenting}} = 3.75$, $M_{\text{control}} = 4.48$; $F(1, 200) = 5.08$, $p = .03$, $\eta_p^2 = .02$). The effect of motivation for men was marginally significant in

FIGURE 2

TEMPORAL FOCUS AS A FUNCTION OF PARENTING MOTIVATION AND PARTICIPANT SEX (STUDY 1)



the opposite direction; men were more future-focused in the parenting motivation condition than the control condition ($M_{\text{parenting}} = 4.98$, $M_{\text{control}} = 4.27$; $F(1, 200) = 3.22$, $p = .07$, $\eta_p^2 = .02$).¹

The results of this study provide support for hypothesis 1, showing that parenting motivation created gender differences in temporal focus. Although men and women were similarly focused on the present versus the future in the control condition, parenting motivation shifted women toward caring more about immediate concerns than men. Next, we test hypothesis 2a by examining how parenting motivation influences intertemporal decisions.

STUDY 2

In study 2, we investigate how parenting motivation affects intertemporal choice. Consistent with hypothesis 2a, we predicted that, when parenting motivation is active, women should prefer more immediate (vs. future) rewards than men.

Participants and Method

One hundred two participants (51 female, $M_{\text{age}} = 35.8$, 37 parents) were recruited from MTurk to participate in a 2

(motivation: parenting, control) \times 2 (participant sex: male, female) between-subjects experiment.

Motivation Manipulation. In this study, we used a set of 10 images of baby faces of varying ethnicities to induce parenting motivation. To increase task involvement, participants rated each image on cuteness, resemblance to the participant, and appropriateness for an advertisement. As in study 1, participants were asked to choose the baby that looks most like it could be their child and imagine that it is their baby. Participants were asked to give the child a name and to write down what it would be like to be a parent. To parallel the parenting condition, participants in the control condition viewed 10 nature scenes and rated each image on attractiveness, appropriateness of the picture for use in an advertisement, and how easily they could imagine being in the location. Participants were then asked to choose the scene that they could most easily imagine themselves in, name the place, and write down what it would be like to be there (see the web appendix for stimuli).²

To minimize the possibility of demand effects, all participants were told that the study was examining consumer memory and feelings toward images. Thus, participants would complete some unrelated tasks before returning to the advertising portion of the study. They were asked to remember their thoughts and feelings when they saw those images and wrote about being a parent as they completed the distractor task, which was actually the intertemporal choice DV. Specifically, participants in the parenting motivation condition were told to imagine being the parent of an infant to the best of their ability while completing the rest of the study, while those in the control condition were asked to imagine being in the nature scene.

Intertemporal Choice. After the parenting motivation manipulation, participants completed an intertemporal choice measure consisting of nine binary items (Hardisty and Weber 2009; Joshi and Fast 2013). We chose this as our outcome measure given its accepted usage in measuring preferences for present versus future rewards and its lack of connection to parenting motivation, as this would provide evidence for an underlying motivational shift. Each item asked participants to choose between receiving \$120 immediately or receiving a different amount of money in one year (\$113, \$120, \$137, \$154, \$171, \$189, \$206, \$223, and \$240) (Joshi and Fast 2013). To make the task incentive compatible, participants were told that one

¹ We examined whether participants' own parental status influenced the results across our five studies. Participants' parental status did not moderate the effect of motivation and participant gender except for a marginally significant three-way interaction in study 1 (see the web appendix for details). Given the otherwise nonexistent effects of parental status in our results, we conclude that gender stereotypes and norms, rather than actual parenting experience, underlie the effects of parenting motivation.

² Because study 2 was run before study 1, we had conducted a pretest to test the validity of the parenting motivation manipulation in this study. The pretest included the same parenting thoughts and parenting emotions indices as the manipulation check in study 1. The results indicated that the manipulation was successful: the parenting motivation condition elicited more parenting thoughts ($M_{\text{parenting}} = 5.61$, $M_{\text{control}} = 1.93$, $F(1, 149) = 184.8$, $p < .001$, $\eta_p^2 = .55$) and parenting emotions ($M_{\text{parenting}} = 4.78$, $M_{\text{control}} = 3.67$, $F(1, 149) = 18.5$, $p < .001$, $\eta_p^2 = .11$) than the control condition.

person in the study would be randomly selected to receive a bonus payment based on one of their choices (i.e., they would either receive the bonus at the end of the study or in one year).

Following previous research (Hardisty and Weber 2009; Joshi and Fast 2013), the titration procedure was used to obtain the point at which participants equally valued present and future gains. We calculated a discounting rate for each participant using the hyperbolic-discounting formula $k = (A/V - 1)/\text{time in years}$, where A (future amount) is the value needed in the future to discount V (current amount). A k of zero indicates that the present and future are valued equally. Positive values of k mean that immediate rewards are valued more than future ones, with larger values denoting greater preferences for immediate rewards, while negative values indicate that future rewards are valued more than immediate ones. Following Hardisty and Weber (2009), we set a maximum discount parameter of $k = 2.25$. In this study, no participant had a negative k value and one participant had a zero k value. Also consistent with Hardisty and Weber (2009), participants who showed inconsistent responding in the binary choice task (i.e., switched back and forth between preferring immediate and future rewards) were excluded from analyses ($N = 2$; 2%).

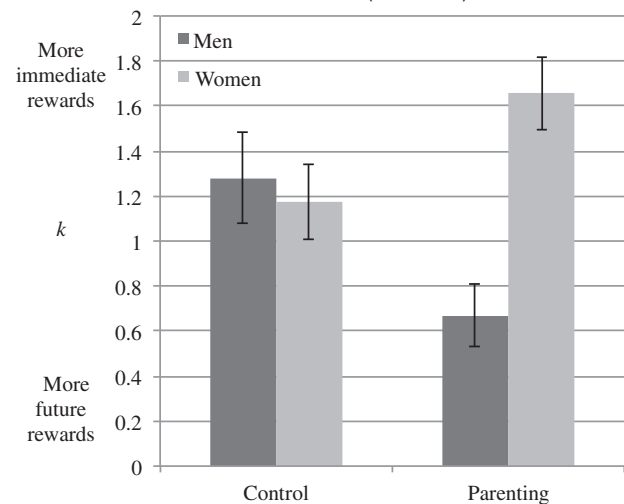
Results and Discussion

A 2 (motivation: control, parenting) \times 2 (participant gender: male, female) ANOVA revealed a main effect of participant gender, whereby women preferred more immediate rewards than men ($F(1, 96) = 6.82, p = .010$). There was no main effect of motivation ($F(1, 96) = .141, p = .708$). Instead, consistent with hypothesis 2a, there was a significant interaction with motivation and participant gender, $F(1, 96) = 10.62, p = .002, \eta_p^2 = .10$. As shown in figure 3, contrast analyses revealed that women discounted the future significantly more than men in the parenting motivation condition ($M_{\text{women}} = 1.66, M_{\text{men}} = .67; F(1, 96) = 17.3, p < .001, \eta_p^2 = .15$), but not in the control condition ($F(1, 96) = .209, p = .648$).

We also found an effect of motivation within each gender. Women preferred immediate rewards more in the parenting condition than in the control condition ($M_{\text{parenting}} = 1.66, M_{\text{control}} = 1.17; F(1, 96) = 4.14, p = .042, \eta_p^2 = .04$), whereas men preferred future rewards more in the parenting condition than in the control condition ($M_{\text{parenting}} = .67, M_{\text{control}} = 1.28; F(1, 96) = 6.47, p = .013, \eta_p^2 = .06$).

The results of study 2 show that parenting motivation leads women to prefer more immediate rewards than men, thus providing initial support for hypothesis 2a. The lack of gender differences in the control condition suggests that this effect occurs only when thoughts of caregiving are activated. In study 3, we further test our framework by

FIGURE 3
PREFERENCES FOR IMMEDIATE VERSUS FUTURE REWARDS AS A FUNCTION OF PARENTING MOTIVATION AND PARTICIPANT SEX (STUDY 2)



examining whether parenting motivation influences product preferences.

STUDY 3

Study 2 demonstrated that parenting motivation influences intertemporal decisions for men and women in different ways. Study 3 sought to conceptually replicate and extend this finding by investigating whether parenting motivation would show a similar pattern in a marketing context. Specifically, we examine how parenting motivation influences responses to a type of business that has a strong association with temporal tradeoffs: rent-to-own companies (Hill, Ramp, and Silver 1998; Zikmund-Fisher and Parker 1999).

Rent-to-own companies provide a service with inherent tradeoffs between immediate and future rewards. Customers can rent furniture, electronics, and even houses with a minimal amount of money up front. Recurring payments are made weekly or monthly, usually with high amounts of interest, resulting in final prices that are typically much greater than if the products were bought outright. Proponents of rent-to-own companies argue that they improve lives and provide an important service to society because they allow consumers immediate access to products they need and would otherwise not be able afford. Critics of these companies contend that they are detrimental to society due to their high long-term costs. Accordingly, these companies should be more attractive to consumers who are more interested in immediate rewards than future ones. Consistent with hypothesis 2a, we predict

that parenting motivation will lead women (vs. men) to have more favorable attitudes toward rent-to-own businesses due to a bias toward immediate rewards.

Participants and Method

One hundred thirty-eight MTurk participants (68 female, $M_{\text{age}} = 37.9$, 55 parents, 79 nonparents, four unknown parental status) completed the 2 (motivation: parenting, control) \times 2 (participant sex: male, female) between-subjects experiment.

Motivation Manipulation. The parenting manipulation was similar to that of study 2. Participants rated images of neutral or smiling baby faces on cuteness and appropriateness for use in an advertisement. Participants in the control condition rated nature scenes on attractiveness and appropriateness for use in an advertisement.

Attitudes about Rent-to-Own Businesses. After the manipulation, participants read a 400-word article on rent-to-own businesses that described their purpose and listed their advantages and disadvantages (see appendix B). They reported their attitudes toward these businesses by indicating their agreement with three items aimed to assess how positively they felt toward them: “They help improve lives,” “They give people what they need,” “They provide important services to society” (1 = completely disagree, 7 = complete agree; $\alpha = .86$). Participants completed demographic information at the end of the study.

Results and Discussion

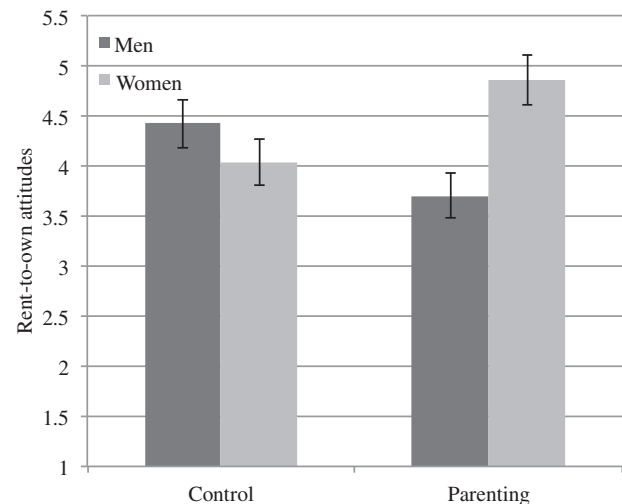
A 2 (motivation: control, parenting) \times 2 (participant sex: male, female) ANOVA revealed no significant main effects ($ps > .10$), but did reveal a significant interaction on attitudes toward rent-to-own businesses, $F(1, 134) = 10.54, p = .001, \eta_p^2 = .07$. Within the parenting motivation condition, and in support of hypothesis 2a, women had significantly more positive attitudes toward these companies than did men ($M_{\text{women}} = 4.86, M_{\text{men}} = 3.70, F(1, 134) = 11.6, p = .001, \eta_p^2 = .08$). However, this difference was not observed in the control condition ($F(1, 134) = 1.35, p = .247$) (figure 4).

There was also a significant effect of motivation within each gender. Women in the parenting motivation condition had more positive attitudes toward rent-to-own businesses than women in the control condition ($M_{\text{parenting}} = 4.86, M_{\text{control}} = 4.04, F(1, 134) = 5.89, p = .017, \eta_p^2 = .04$). The opposite pattern was found for men, whereby men in the parenting condition had less positive attitudes than those in the control condition ($M_{\text{parenting}} = 3.70, M_{\text{control}} = 4.42, F(1, 134) = 4.67, p = .032, \eta_p^2 = .03$).

In summary, study 3 conceptually replicated the finding that parenting motivation influences intertemporal preferences differently for men and women. Consistent with the findings in study 2, parenting motivation enhanced

FIGURE 4

ATTITUDES TOWARD RENT-TO-OWN BUSINESSES AS A FUNCTION OF PARENTING MOTIVATION AND PARTICIPANT SEX (STUDY 3)



women's preferences for more immediate rewards relative to men's preferences, increasing their support for businesses that provide short-term benefits for consumers. These findings underscore the real-world impact of differences brought about by parenting motivation for males and females.

STUDY 4

The goal of study 4 was twofold. First, we wanted to test hypothesis 2b by examining the underlying process of how parenting motivation produces gender differences in intertemporal choice. We predicted that activating parenting motivation would shift general temporal focus in gender-specific ways, leading women to be more present-focused than men, and that this shift in temporal focus would in turn mediate the effect of parenting motivation on intertemporal choice, such that women are more likely than men to choose smaller, sooner rewards over larger, future ones.

A second goal of this study was to test other possible mediators for how parenting motivation might influence choice. It is possible that thinking about parenting causes women to feel more depleted or negative, which can lead to more impatience (Wan and Agrawal 2011). Correspondingly, parenting motivation may cause men to feel more positive or vital, which replenishes resources and increases self-control (Laran and Janiszewski 2011; Muraven, Gagné, and Rosman 2008). Study 4 measures feelings of general positivity and negativity, vitality, and depletion in addition to measuring our proposed

mechanism, temporal focus, to test which construct mediates the effect.

Participants and Method

Two hundred fifty-five MTurk participants (152 female, $M_{\text{age}} = 36.0$, 146 parents, 109 nonparents) completed a 2 (motivation: parenting, control) \times 2 (participant sex: male, female) between-subjects experiment. Participants were randomly assigned to the parenting or control condition. After the manipulation, they completed the intertemporal choice questions from study 2, followed by measures of temporal focus, vitality, depletion, and general positivity and negativity.

Motivation Manipulation. Participants were told that the study was about preferences and decisions. Participants were randomly assigned to the parenting or control condition. Similar to previous studies, participants in the parenting condition viewed images of infants and rated how cute each baby is. They were asked to choose the baby that looks most like them and to imagine being the parent of that baby. They gave their baby a name and wrote down their thoughts and feelings about being the parent of this baby.

Participants in the control condition viewed images of six male and six female adults approximately 65 years of age and rated each person on how friendly he/she seemed. To parallel the parenting condition, participants were asked to choose the friendliest-looking person and imagine talking to him/her at a neighborhood picnic. They gave this person a name and wrote down their thoughts and feelings about this interaction (see the web appendix for full instructions). We chose this control manipulation because, like the one used in study 1, it includes a social component, which helps us rule out the alternative hypothesis that any interpersonal context causes women to prefer more immediate rewards than men. In addition, whereas study 1 used images of young adults, study 4 uses images of older adults to rule out the possibility that interacting with people of a certain age leads to gender differences in temporal focus.

Intertemporal Choice. After the motivation manipulation, participants were told that we were interested in their financial preferences. They completed the intertemporal choice measure used in study 2, and a discounting rate was calculated for each participant (Hardisty and Weber 2009; Joshi and Fast 2013). In this study, one participant had a negative k value and one participant had a zero k value. Consistent with Hardisty and Weber (2009), participants who showed inconsistent responding in the binary choice task (i.e., switched back and forth between preferring immediate and future gains) were excluded from analyses ($N = 6$; 2.4%).

Temporal Focus. We asked participants to think back to the social situation they imagined earlier and report how it would influence their prioritization of the present versus the future. As in study 1, participants responded to five items on nine-point scales with the following anchors:

Immediate, day-to-day needs (1) – Future needs (9); Being comfortable right now (1) – Being comfortable in the future (9); Focusing on present needs (1) – Focusing on future needs (9); Making sure needs are met right now (1) – Making sure needs are met in the future (9); Making sure immediate needs are met (1) – Making sure future needs are met (9). These items were aggregated to form the temporal focus index ($\alpha = .95$)

Alternative Mediators. Next, participants were asked to rate the extent to which they feel vital, depleted, positive, and negative. Vitality is defined as “a subjective feeling of aliveness and energy” (Ryan and Frederick 1997, 520). To measure feelings of vitality, we used five items adapted from Ryan and Frederick (1997). Specifically, participants were asked the extent to which they currently felt energized, alive, vital, alert, excited ($\alpha = .86$). To measure feelings of depletion, participants were asked to what extent they felt tired, depleted, fatigued, drained, and lethargic ($\alpha = .95$). Participants also rated how positive and negative they currently felt. All items were measured on seven-point scales (1 = not at all, 7 = very much).

Results and Discussion

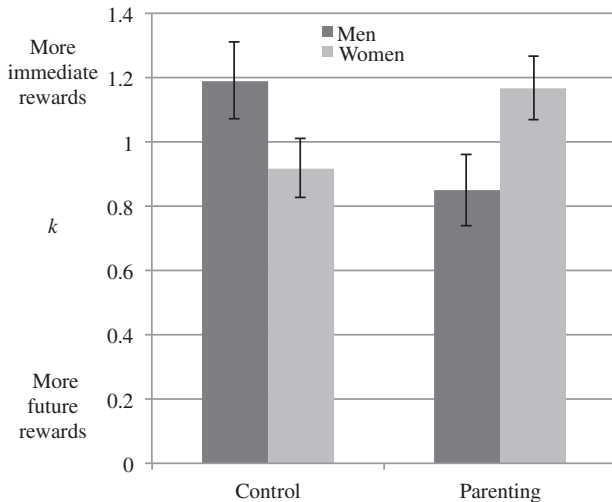
Intertemporal Choice. A 2 (motivation: parenting, control) \times 2 (participant sex: male, female) ANOVA on intertemporal choice revealed no main effects ($ps > .67$) but a significant interaction, $F(1, 244) = 7.66$, $p = .006$, $\eta_p^2 = .03$. As predicted, women were more likely to choose smaller, sooner rewards than men in the parenting motivation condition ($M_{\text{women}} = 1.17$, $M_{\text{men}} = .85$, $F(1, 244) = 4.47$, $p = .036$, $\eta_p^2 = .02$). Unexpectedly, there was also a marginal effect in the opposite direction in the control condition, such that women were more likely to choose larger, future rewards than men ($M_{\text{women}} = .92$, $M_{\text{men}} = 1.19$, $F(1, 244) = 3.25$, $p = .073$, $\eta_p^2 = .01$) (figure 5). We elaborate on this finding in the discussion section of this study.

Within gender, there was a main effect of condition for men, whereby parenting motivation increased their preferences for future rewards ($M_{\text{parenting}} = .85$, $M_{\text{control}} = 1.19$, $F(1, 244) = 4.25$, $p = .040$, $\eta_p^2 = .02$). For women, there was a marginal effect of motivation, such that parenting motivation decreased their preferences for future rewards ($M_{\text{parenting}} = 1.17$, $M_{\text{control}} = .92$, $F(1, 244) = 3.43$, $p = .065$, $\eta_p^2 = .01$).

Temporal Focus. A 2 (motivation: parenting, control) \times 2 (participant sex: male, female) ANOVA on the temporal focus index revealed a main effect of participant sex ($M_{\text{women}} = 4.42$, $M_{\text{men}} = 5.31$, $F(1, 244) = 10.85$, $p = .001$, $\eta_p^2 = .04$) and no main effect of motivation ($F(1, 244) = .552$, $p = .458$). In line with hypothesis 1, results showed a significant interaction effect $F(1, 244) = 14.87$, $p < .001$, $\eta_p^2 = .06$. Contrast analyses

FIGURE 5

PREFERENCES FOR IMMEDIATE VERSUS FUTURE REWARDS AS A FUNCTION OF PARENTING MOTIVATION AND PARTICIPANT SEX (STUDY 4)



indicated that, in the parenting condition, women were more present-focused than men ($M_{\text{women}} = 3.97$, $M_{\text{men}} = 5.88$, $F(1, 244) = 25.9$, $p < .001$, $\eta_p^2 = .10$). However, there was no such effect in the control condition ($F(1, 244) = .156$, $p = .693$) (figure 6). In addition, motivation had a significant effect on temporal focus within each gender. Parenting (vs. control) motivation led men to be more future-focused ($M_{\text{parenting}} = 5.88$, $M_{\text{control}} = 4.65$, $F(1, 244) = 8.80$, $p = .003$, $\eta_p^2 = .03$) and women to be more present-focused ($M_{\text{parenting}} = 3.97$, $M_{\text{control}} = 4.80$, $F(1, 244) = 6.07$, $p = .014$, $\eta_p^2 = .02$).

Alternative Mediators. A 2 (motivation: parenting, control) \times 2 (participant sex: male, female) ANOVA revealed no main effects or interactions on either vitality ($ps > .28$) or depletion ($ps > .27$). Similarly, there was no effect of motivation, gender, or their interaction on positive ($ps > .26$) or negative ($ps > .11$) affect (see the web appendix for all means).

Mediated Moderation Analysis. We conducted a mediated moderation analysis using 10,000 bootstrapped samples with participant sex as the independent variable, intertemporal choice as the dependent variable, motivation as the moderator, and all five potential mediators (temporal focus, vitality, depletion, positive affect, negative affect) (PROCESS model 8; Hayes 2012). Supporting hypothesis 2b, the results revealed a significant indirect effect of the interaction between participant sex and motivation on intertemporal choice through temporal focus ($\beta = .1430$, $SE = .06$, 95% bootstrap CI: .0453 to .3041). The extent to which people were focused on the present versus the future

FIGURE 6

TEMPORAL FOCUS AS A FUNCTION OF PARENTING MOTIVATION AND PARTICIPANT SEX (STUDY 4)

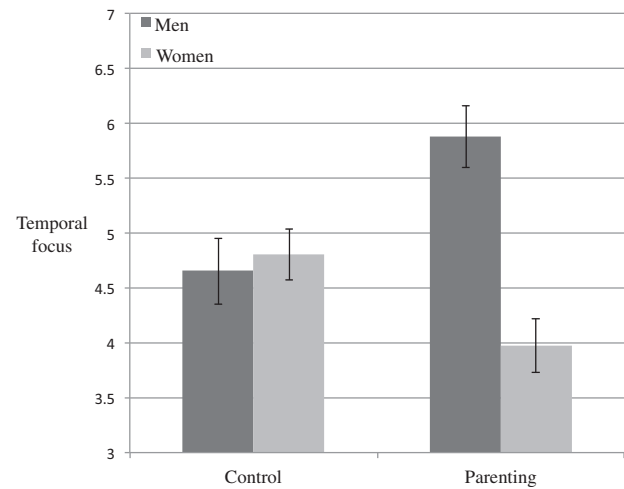
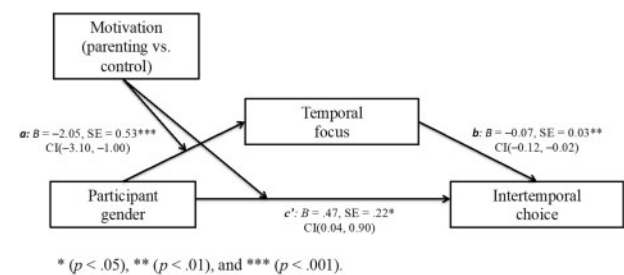


FIGURE 7

MEDIATED MODERATION MODEL (STUDY 4)



mediated the relationship between participant sex and intertemporal choice in the parenting motivation condition ($\beta = .1326$, $SE = .06$, 95% bootstrap CI: .0418 to .2599), but not the control condition ($\beta = -.0104$, $SE = .03$, 95% bootstrap CI: $-.0785$ to .0400) (figure 7). There were no significant indirect effects through vitality, depletion, or positive or negative affect. These results provide support for hypothesis 2b, that parenting motivation leads to different temporal foci in men and women, which then lead to different intertemporal preferences. They also rule out vitality, depletion, or positive or negative affect as mediators.

Discussion. Study 4 had two goals. First, it tested hypothesis 2b and, consistent with our hypothesis, found that gender differences in intertemporal choice under parenting motivation are mediated by temporal focus. Second, study 4 examined other possible mediators of vitality, depletion,

and general positivity and negativity. Results did not reveal any significant effects for these potential mediators, suggesting that the effects on parenting motivation are unlikely to be driven by these alternatives.

Of note, we found an unexpected effect of gender in the control condition in this study, whereby women were marginally more likely to choose larger, future rewards than men. Although we did not predict this, previous research has found that women tend to have a longer future time perspective than men (Beenstock, Adams, and White 2011; Petrocelli 2003; Zimbardo and Boyd 1999; Zimbardo et al. 1997), and are better at resisting temptation and delaying gratification from a young age (Bjorklund and Kipp 1996; Kochanska et al. 1996). However, other research has found that results vary depending on the type of measure used and the context in which it is examined (Cross, Copping, and Campbell 2011), which may explain why we do not find consistent sex differences in the control condition in the current research.

Next, in the final study, we continue to explore underlying mechanisms by examining the role of parenting stereotypes. We hypothesized that the gender-specific effects of parenting motivation on temporal focus and intertemporal choice are driven by the stereotype of the role of the parent (primary caretaker vs. breadwinner) rather than the stereotype of the gender of the parent (whether someone is a mother or a father). We manipulate parenting roles in study 5 to test this hypothesis.

STUDY 5

Our theorizing suggests that gender differences in temporal focus are due to stereotypes of immediate and future parenting goals associated with each gender. However, we propose that although people generally tend to associate mothers with immediate needs and fathers with longer-term needs (as shown in our pilot study), fundamentally it is the difference in the parental roles (primary caregiver vs. breadwinner) that drives temporal focus and intertemporal preferences. If this is the case, it might be possible to eliminate or even reverse the gender-specific patterns found in the first four studies by activating parenting stereotypes that are atypical of traditional gender roles.

Study 5 tests this notion by activating stereotype-atypical roles in which mothers are breadwinners and fathers are primary caregivers. Consistent with hypothesis 3, we predicted that thoughts of being a parent who is a breadwinner should activate a future focus, regardless of whether the breadwinner is a man or woman. Analogously, thoughts of being a parent who is a primary caregiver should activate a present focus, regardless of whether the primary caregiver is a woman or a man. In other words, activating stereotype-typical parenting roles should produce the pattern of results we observed in the first four studies,

in which women are more present-focused than men. Stereotype-atypical parenting roles, on the other hand, are predicted to reverse the effect, leading men to be more present-focused than women.

Participants and Procedure

Three hundred twelve MTurk participants (192 female, $M_{\text{age}} = 37.0$, 159 parents, one unknown parental status) completed an experiment with a 2 (parental role: stereotype-typical, stereotype-atypical) \times 2 (participant sex: male, female) between-subjects design. Participants were randomly assigned to a stereotype-typical or stereotype-atypical role (see below). Next, we measured temporal focus and intertemporal choice. Finally, participants completed a manipulation check assessing how stereotypical the parenting role in the manipulation was.

Parenting Role Manipulation. As in our previous studies, participants were shown a set of baby pictures of varying ethnicities and asked to imagine being the parent of the baby that looks most like them. Unlike in our previous studies, however, participants were then instructed to imagine being in a parenting role that was either typical or atypical with regard to prevailing gender stereotypes.

In the stereotype-typical condition, women imagined being a stay-at-home mom while their husband is the primary breadwinner for the family. Conversely, men imagined being a breadwinner dad while their wife is a stay-at-home mom. In the stereotype-atypical condition, women imagined being a breadwinner mom with a stay-at-home husband, and men imagined being a stay-at-home dad with a breadwinner wife. They were told to imagine the role as vividly as possible even if they have never been in the role before. Participants then wrote about what their life would be like in this parenting role. Participants were instructed to keep the parenting role in mind as they completed the rest of the study.

Intertemporal Choice. We asked participants how their parenting role would influence their financial preferences, using the temporal discounting measure used in studies 2 and 4 (Hardisty and Weber 2009; Joshi and Fast 2013). For each choice, participants were asked to select the option that would best help them perform their parenting role. A discounting parameter (k) was calculated for each participant. As before, a maximum discounting parameter of 2.25 was set and participants who showed inconsistent responding in the binary choice task (i.e., switched back and forth between preferring immediate and future rewards) were excluded from analyses ($N = 10$; 3.2%).

Temporal Focus. As in studies 1 and 4, participants were asked to report their temporal focus using the following scales: Immediate, day-to-day needs (1) – Future needs (9); Being comfortable right now (1) – Being comfortable in the future (9); Focusing on present needs (1) – Focusing on future needs (9); Making sure needs are met right now

(1) – Making sure needs are met in the future (9); Making sure immediate needs are met (1) – Making sure future needs are met (9). These items were combined to form the temporal focus index ($\alpha = .95$).

Stereotype Typicality Manipulation Check. At the end of the study, participants were asked the extent to which they agreed with two statements about how normative their parenting role is: “The role is common in our society,” and “I know a lot of people in this role” ($r = .73, p < .001$).

Results and Discussion

Stereotype Typicality Manipulation Check. The results of the manipulation check showed that our manipulation was successful. The stereotype-typical role was perceived as more normative than the stereotype-atypical role ($M_{\text{typical}} = 5.23, M_{\text{atypical}} = 3.75, F(1, 297) = 70.4, p < .001, \eta_p^2 = .19$).

Intertemporal Choice. A 2 (parental role: stereotype-typical, stereotype-atypical) \times 2 (participant gender: male, female) ANOVA revealed no main effects ($ps > .54$), but a significant parental role by participant gender interaction, $F(1, 297) = 8.47, p = .004, \eta_p^2 = .03$ (figure 8). As seen in the figure, the pattern of effects was directly opposite in each of the two parental role conditions.

In the stereotype-typical condition, women preferred significantly more immediate rewards than men ($M_{\text{women}} = 1.12, M_{\text{men}} = .78, F(1, 297) = 5.96, p = .015, \eta_p^2 = .02$). This pattern mirrors the effects of the parenting motivation condition in our previous studies, consistent with the notion that parenting motivation triggers stereotypical parenting gender roles. Importantly, the pattern of results was reversed in the stereotype-atypical condition. Specifically, breadwinner moms were marginally more willing to wait for larger benefits than stay-at-home dads ($M_{\text{women}} = .80, M_{\text{men}} = 1.03, F(1, 297) = 2.76, p = .098, \eta_p^2 = .01$).

Temporal Focus. A 2 (parental role: stereotype-typical, stereotype-atypical) \times 2 (participant sex: male, female) ANOVA revealed no main effects, $ps > .21$. As predicted, however, the analysis did show a significant interaction, $F(1, 297) = 52.7, p < .001, \eta_p^2 = .15$. In the stereotype-typical condition, women were more present-focused than men ($M_{\text{women}} = 3.28, M_{\text{men}} = 5.07, F(1, 297) = 28.2, p < .001, \eta_p^2 = .09$). The results were reversed in the stereotype-atypical condition: women were more future-focused than men when women imagined being breadwinner moms and men imagined being stay-at-home dads ($M_{\text{women}} = 5.27, M_{\text{men}} = 3.66, F(1, 297) = 24.5, p < .001, \eta_p^2 = .08$) (figure 9).

Mediated Moderation Analysis. To test hypothesis 3, we conducted a mediated moderation analysis with participant sex as the IV, intertemporal choice as the DV, temporal focus as the mediator, and parental role as the

FIGURE 8

PREFERENCES FOR IMMEDIATE VERSUS FUTURE REWARDS AS A FUNCTION OF TARGET PARENTAL ROLE AND TARGET SEX (STUDY 5)

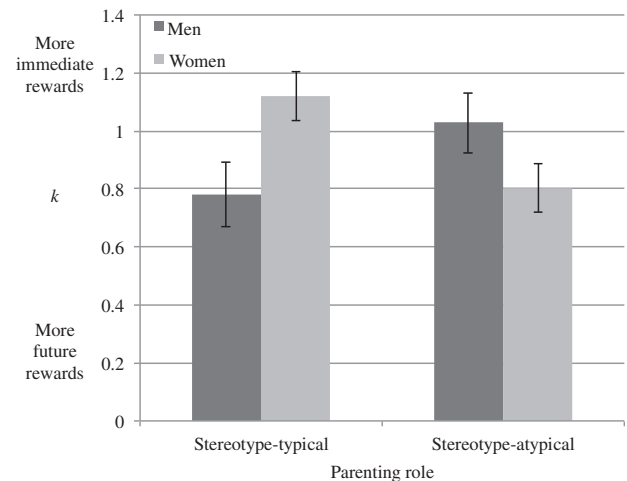
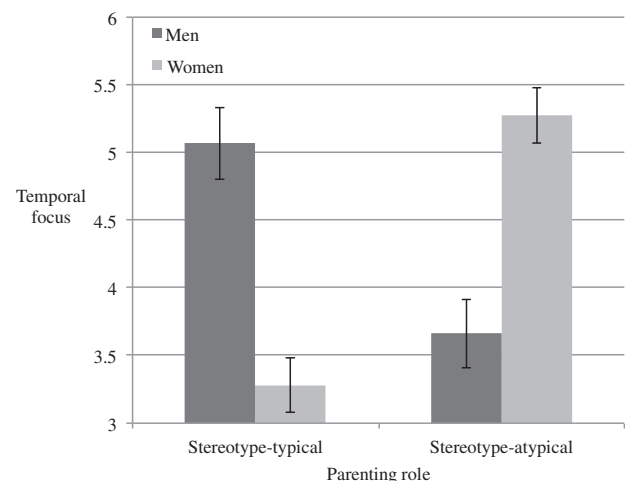


FIGURE 9

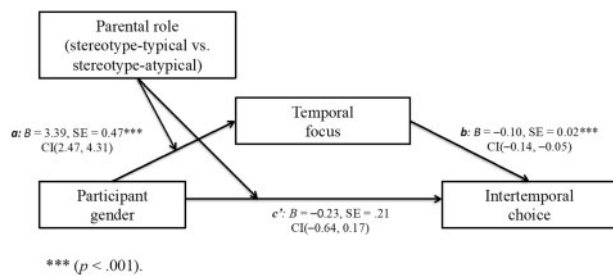
TEMPORAL FOCUS AS A FUNCTION OF TARGET PARENTAL ROLE AND TARGET SEX (STUDY 5)



moderator (PROCESS model 8; Hayes 2012). The results yielded a significant indirect effect ($\beta = -.33, SE = .09, 95\% \text{ bootstrap CI: } -.5262 \text{ to } -.1834$). The extent to which people focused on the present versus the future mediated the relationship between participant sex and intertemporal choice in both the stereotype-typical ($\beta = .17, SE = .05, 95\% \text{ bootstrap CI: } .0882 \text{ to } .2956$) and stereotype-atypical conditions ($\beta = -.16, SE = .05, 95\% \text{ bootstrap CI: } -.2655 \text{ to } -.0821$), but in different directions (figure 10).

FIGURE 10

MEDIATED MODERATION MODEL (STUDY 5)



Discussion. The results of study 5 suggest that gender differences in temporal focus from parenting motivation are related to perceptions of the type of roles and responsibilities one expects to take on as a parent. As shown in our pilot study, both men and women perceive mothers to be more responsible for immediate needs than fathers, and these stereotypes appear to be at least partly responsible for the observed differences in temporal preferences. Consistent with the results in studies 1–4, the findings from study 5 showed that thoughts about parenting led women to be more present-focused and biased toward sooner rewards when they imagined being stay-at-home moms and their husbands as primary breadwinners. However, when participants were explicitly told to imagine stereotype-atypical parenting roles (i.e., caregiver dads and breadwinner moms), the pattern was marginally reversed: women became more future-focused and were more willing to wait for larger, future rewards than men. Long-held stereotypes are difficult to change completely, which could explain why the effect was marginal rather than significant.

These results indicate that activating parenting motivation is likely to trigger thoughts consistent with stereotype-typical parenting roles adopted by men and women. However, study 5 also revealed that the influence of parenting motivation on temporal preferences is not driven by the stereotypes of the gender of the parent per se (whether someone is a mother or a father), but rather by the stereotype of the role of the parent (primary caretaker vs. breadwinner). Thus, the results of this study deepen our understanding of why parenting motivation produces gender differences in temporal focus.

GENERAL DISCUSSION

Although parenting has been an essential activity in human evolutionary history, relatively little is known about parenting motivation on consumer preferences and decision-making. Because successful parenting involves caring for both a child's immediate and long-term needs,

we considered whether parenting motivation leads people to focus more on the present or on the future. We hypothesized that the effect of parenting motivation is likely to be different for men versus women due to the stereotypes people hold about mothers and fathers. Consistent with a large literature on parenting roles, our pilot study showed that people have gender-specific parenting stereotypes: people expect mothers to focus more on a child's immediate needs, whereas they expect fathers to focus more on the child's future needs. Although these needs are tied to childcare, we hypothesized that activating parenting motivation influences decision-making more broadly by shifting people's temporal focus, which is a general orientation of the relative emphasis one places on the present versus the future. By altering temporal focus, we predicted that parenting motivation leads to gender-specific decision-making patterns and preferences even when the decisions do not concern the caretaking of children.

Consistent with our predictions, we showed that activating parenting motivation influences temporal focus (study 1), intertemporal choice (study 2), and attitudes toward products associated with a distinct temporal perspective (study 3). Whereas parenting motivation led women to be more present-focused and prefer more immediate rewards, it led men to be more future-focused and prefer future rewards. We also directly tested the psychological mechanism underlying these effects, showing that the effect of parenting motivation on choices is mediated by shifts in temporal focus (studies 4 and 5).

Study 5 further demonstrated the role of underlying stereotypes about parental roles. In line with extant literature and the results of our pilot study, the first four studies illustrate that the traditional stereotypes of women as caregivers and men as breadwinners still dominate perceptions. When the typical male/female parenting roles were reversed, temporal preferences were also reversed. This suggests that the effect of parenting motivation on temporal preferences is not driven by stereotypes of men and women per se, but instead by stereotypes of the parenting roles of primary caretaker and breadwinner, regardless of whether this role is played by a man or a woman. Taken together, the results of the current research advance our understanding of how parenting motivation influences consumer preferences and decision-making.

Contributions and Implications

The present research contributes to extant work on parenting motivation, temporal discounting, and gender stereotypes in consumer decision-making. A critical component of human evolution, parenting motivation has been theorized to have many downstream consequences (Buckels et al. 2015; Geary 2000; Griskevicius and Kenrick 2013; Kenrick et al. 2010). However, little is known about how this motivation directs cognitions and decisions, especially in consumers. Our research shows

that parenting motivation activates gender-specific stereotypes regarding the provision of immediate and future offspring care, leading women to be more present-focused and to prefer more immediate rewards than men.

This article answers recent calls for research on gender differences in consumer behavior (Meyers-Levy and Loken 2015). Specifically, we join the growing number of studies that aim to advance understanding of gender norms and stereotypes in a marketing context (Brough et al. 2016; Dahl et al. 2009; Gal and Wilkie 2010; Johar et al. 2003; Nikolova and Lamberton 2016). The results of our research provide additional evidence that consumer decisions can be influenced by identity-relevant stereotypes. These stereotypes trigger different, even opposing, behaviors in men and women even when the overarching motivation is the same for both sexes.

Our research also contributes to the literature on temporal decisions more broadly. Temporal discounting rates have typically been attributed to stable individual differences (Cooper et al. 2013; Ersner-Hershfield et al. 2009; Manning et al. 2014; Shamosh et al. 2008) or heuristic biases (Marzilli Ericson et al. 2015; Read, Frederick, and Scholten 2013; Scholten and Read 2010). However, we identify a person \times situation interaction effect in which temporal preferences depend on situationally activated goals and motivations in conjunction with the consumer's own stereotypes. Thus, our work complements existing research that advances a context-dependent view of when and why temporal discounting occurs (Joshi and Fast 2013; Van den Bergh, Dewitte, and Warlop 2008).

Understanding the impact of parenting motivation on temporal preferences has practical implications for companies and consumers. Many businesses present customers with inherent tradeoffs between immediate and future rewards. Study 3 examined one such business, rent-to-own companies, and found that a parenting motivation led women to be more favorable toward them than men. Although not explicitly examined, consumer attitudes toward similar market entities and products, such as credit cards, retirement advisors, and no-money-down mortgage lenders, may also be affected by parenting motivation. For businesses, this information is useful for segmentation and targeting purposes. For consumers, it may illuminate the extent of one's own biases and improve decision-making through more informed choices.

Limitations and Future Directions

A limitation of the current research is that it does not directly ascertain that parenting motivation is the underlying driver of the observed effects. We felt that the most direct measure of parenting motivation better served as a manipulation check rather than as a process measure. That being said, the series of studies demonstrates evidence of process consistent with our theorizing that gender differences in

intertemporal choice and product preferences under parenting motivation are mediated by a shift in temporal focus. Study 4 showed this through mediation, while study 5 demonstrated that changing the temporal focus by manipulating parenting roles also changes the pattern for intertemporal choice. Future research could continue to explore ways to directly test parenting motivation's role in this process.

Although we were able to rule out several alternative explanations (vitality, depletion), there are others that were not directly tested. For instance, it is possible that different parenting roles lead to different regulatory foci. Immediate caregiving goals may activate prevention focus, while future caregiving goals induce promotion focus. Future research is needed to investigate this hypothesis. Another possibility is that parenting motivation triggers differences in affective versus cognitive processing among men and women. Past research suggests that affect is a present-oriented decision-making system (Chang and Pham 2013), and thus could explain the observed effects on temporal discounting. Notably, the manipulation check in study 1 and the pilot test in study 2 did not find a gender difference on the index of parenting emotions, which suggests men and women engage in similar levels of affective processing. However, the index examined a narrow set of emotions, and a more comprehensive test of affective processing may be warranted to fully rule out this alternative hypothesis.

Further, we note that there may be possible alternative explanations for our study 3 outcome variable, attitudes toward rent-to-own companies, such as feasibility versus desirability or flexibility versus commitment. Another limitation of this study is that we did not explicitly measure negative attitudes toward rent-to-own companies. Our purpose in this study was not to extol the positive or negative sides of this particular industry, but rather to highlight the long-term versus short-term tradeoffs that it presents. An examination of the overall means suggests that we did not overly bias participants in a positive direction with the wording of our variable, since the means hovered around the midpoint of the scale. Nevertheless, the study would have been more complete and informative if we had included negative aspects of rent-to-own in the measure.

Our work illuminates several fruitful avenues for future research. For example, we did not systematically test how young or helpless children need to be in order to activate parenting motivation. The manipulations we employed featured infants and toddlers, leaving open the possibility that the effects demonstrated for the parental motivation system pertain only to very young children. Research on baby schema suggests caregiving cognitions and behaviors are not activated with pictures of adults (Glocker et al. 2009; Sherman et al. 2009; Thompson-Booth et al. 2014), and our control conditions used in studies 1 and 4 also support this notion. However, the present research does not specifically address children of older ages. Given that the needs and requirements of children change as they age, parenting

roles likely shift with life stages, and immediate versus future needs may change as well. For instance, once children are old enough to take care of themselves, mothers may not be as concerned with their immediate needs. This would lead to the prediction that parenting motivation for older children, at least in mothers, leads to different intertemporal biases than parenting motivation for infants and toddlers. Relatedly, the time frames used in our studies are quite long, and it would be useful for future work to see whether parenting motivation might have the same effects with shorter time frames.

In the present research, we focused on two different outcome variables: a well-validated intertemporal choice measure (studies 2, 4, and 5), and attitudes toward a marketplace entity associated with intertemporal tradeoffs (study 3). Future research could explore other outcome variables not directly related to parenting that might be similarly affected by parenting motivation. One possibility is to examine the relationship between parenting motivation and self-control, which is associated with intertemporal choice. An interesting question on this topic, for instance, is whether parenthood can lead previously health-conscious

individuals to make poorer food choices due to changes in temporal focus. If so, interventions that help people recognize this tendency may reduce myopia and encourage healthier choices.

In conclusion, we believe that the current research has identified an exciting area of research for consumer behavior—the influence of parenting motivation. We hope that the present work serves as a catalyst and foundation for future work on this fruitful and fertile topic.

DATA COLLECTION INFORMATION

The data for the pilot study were collected by research assistants under the supervision of the first author at the University of Kansas Behavioral Lab in the fall of 2016. The first author collected data for studies 1 (fall 2017), 2 (spring 2014), 3 (spring 2016), 4 (fall 2017), 5 (fall 2017), and the motivation manipulation pretest in study 2 (summer 2015) using Amazon MTurk. The first author analyzed the data with input from the second and third authors.

APPENDIX A

Parenting and control manipulations used in study 1 (with sample images)

Parenting

Instructions: This study is about relationship roles. Specifically, we are interested in how different types of social situations influence priorities and preferences. You will be asked to imagine being in a certain relationship. Then you will answer some questions about your preferences.

We would like you to imagine being the mother (father) of an infant. If you have never been a mom (dad), try to imagine what it would be like based on your experiences. Put yourself in the role of a mother (father), and take her (his) perspective when answering the questions in this study.

To help you with this perspective-taking task, look at the images below. Think about the baby that you think is the cutest, and looks most like you. Imagine that this is your baby and answer the questions that follow.



Which baby looks most like you? Please give your baby a name.

Imagine that this is your baby. Think about what it would be like to be this baby's parent. Write down what you might be thinking or feeling—for example, your goals, concerns, and responsibilities. Be as specific as possible.

Control

Instructions: This study is about relationship roles. Specifically, we are interested in how different types of social situations influence priorities and preferences. You will be asked to imagine being in a certain relationship. Then you will answer some questions about your preferences.

We would like you to imagine moving to a place and making friends. If you have never moved before, try to imagine what it would be like based on your experiences. Put yourself in the role of someone who is making a new friend, and take this perspective when answering the questions in this study.

To help you with this perspective-taking task, look at the images below. Think about the person that looks most like he/she could be a new friend for you. Imagine that you are thinking about becoming friends with this person and answer the questions that follow.



Which person looks most like a potential new friend? Please give this person a name:

Imagine being friends with this person. Write down what being friends with this person is like—for example, your goals, concerns, and responsibilities. Take the perspective of someone who is making new friends as you answer this question.

APPENDIX B

Rent-to-own information used in study 3:

“Rent-to-own” has become a multibillion-dollar industry in the American economy. Consumers are attracted to this option for larger-scale purchases because it allows them to buy the goods they desire without paying the full price up front. Also, because renters pay as they go, no credit is extended, credit reports on customers are not obtained, and no debt is incurred. One of the most popular rent-to-own purchases is furniture because of its typically high prices and the fact that it is a general necessity for homeowners. Furniture also does not get outdated nearly as fast as electronics, so it makes more sense to be paying for furniture over a long period of time than it does for electronics. In general, rent-to-own may be a good option for consumers who cannot comfortably afford to pay the full price of an item in one payment. However, if you are considering this option, it is important to weigh the pros and cons of rent-to-own.

Pros:

- Flexible payment plans allow consumers to change the amount they pay, or they can execute an early purchase option at any time to obtain ownership of the product.
- The customer is never obligated to make the next payment and can return the product at any time for any reason (but he or she will not get their money back).
- If a customer chooses a fewer number of payments, the rent-to-own price is significantly lower and can be competitive to retail prices.
- A person’s credit will not be damaged in any way if they are unable to make a payment, unlike a loan.
- Some stores offer free replacement, repair, and delivery.

Cons:

- If the customer chooses a higher number of payments, the total cost will be more than retail, sometimes double or triple the item’s original price.
- Though a rent-to-own contract is not a loan and does not involve payment of interest rates, when factored in, the equivalent interest rate may be 60% to 100% or higher.
- There have been complaints of stores that do not adequately explain their contracts, deliver used or damaged goods, and use illegal collection practices, such as harassing phone calls.
- Store employees often convince customers to rent products they don’t need, therefore burdening customers with multiple payments they cannot manage.
- Some plans may have hidden fees, for example, if the product is returned or damaged.

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