

When Wanting Is Better than Having: Materialism, Transformation Expectations, and Product-Evoked Emotions in the Purchase Process

MARSHA L. RICHINS

Materialists believe that acquiring products will make them happier, but the validity of this premise has not been examined empirically. In this research, two cross-sectional and one longitudinal studies examine the emotions evoked by products before and after purchase. High-materialism consumers consistently showed hedonic elevation in product-evoked emotions before purchase, followed by hedonic decline after purchase. Low-materialism consumers, however, did not display this pattern. Findings show that hedonic elevation appears to be due to expectations among high-materialism consumers that purchase of the desired product will transform their lives in significant and meaningful ways. Findings further indicate that satisfaction processes may partially explain the hedonic decline that follows purchase among high-materialism consumers but also suggest that for these consumers, the state of anticipating and desiring a product may be inherently more pleasurable than product ownership itself.

Despite a reasonably large literature on materialism and well-being, the validity of materialists' beliefs that acquisition increases their happiness has not been empirically examined. Materialists believe that acquiring things will make them happier, and they tend to act on this belief by buying more (Watson 2003). In popular culture, however, materialists are viewed as being less happy than other people, and this perception has been validated by the many empirical studies that show a negative relationship between materialism and well-being (Burroughs and Rindfleisch 2002; Deckop, Jurkiewicz, and Giacalone 2010; Kasser and Ryan 1993).

Although materialists are less happy overall than their

lower-materialism counterparts, it is entirely possible that they would be even less happy if they did not have recourse to the acquisition and use of desirable products to increase the amount of positive feelings in their lives. Thus, any conclusion about the validity of materialists' beliefs about acquisition and happiness is based primarily on conjecture rather than on evidence.

Indeed, a rigorous test of the accuracy of materialists' happiness beliefs would be difficult to undertake. Happiness and well-being are complex constructs influenced by many situational and dispositional factors (Diener and Biswas-Diener 2008; Lyubomirsky, Sheldon, and Schkade 2005), and untangling these empirically is far beyond the scope of any one set of studies. So instead of studying overall happiness or well-being, the research reported here focuses on a subset of the feelings that consumers experience each day—the emotions evoked in their interactions with products. Because goods are so central to the lives of materialistic consumers, product-evoked emotions are likely to be experienced many times throughout the day, and the cumulative impact of these emotions on materialists' overall sense of well-being may be significant.

This article examines product-evoked emotions among high- and low-materialism consumers. Three studies assess whether acquisition creates positive emotions among materialistic consumers and examine changes in product-

Marsha L. Richins (richinsm@missouri.edu) is Myron Watkins Distinguished Professor, Trulaske College of Business, University of Missouri, Columbia, MO 65211. The author thanks Alex Gunz for his insightful comments on an earlier draft of this article, Detelina Marinova for advice on data analysis, and *Journal of Consumer Research* editors and reviewers for their helpful input throughout the review process. The author also gratefully acknowledges the Sherlock Hibbs Estate Gift, which provided financial support during the analysis phase of this project.

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evoked emotions over the course of the purchase process. The studies also investigate possible explanations for the changes in emotions high-materialism consumers experience during the purchase process.

MATERIALISM AND EMOTIONS

In the consumer behavior literature, materialism is defined as the importance a consumer places on the acquisition and ownership of possessions (Belk 1985) and the tendency to view acquisition as a necessary means to reach important life goals and desired end states (Richins and Dawson 1992). In the most widely accepted conceptualization, materialism is composed of three highly correlated components: centrality of acquisition and possessions in one's life, the tendency to judge personal success on the basis of acquisitions, and the belief that one's happiness depends on acquisition (Richins and Dawson 1992).

Studies consistently show that materialists are less happy in general than those lower in materialism, and they experience fewer positive and more negative emotions in daily life (Christopher, Saliba, and Deadmarsh 2009; Kashdan and Breen 2007; Solberg, Diener, and Robinson 2003). However, few studies have examined the possibility that acquisition might result in greater happiness or positive emotions for materialistic consumers. For example, although materialists might generally experience more negative emotions than others, perhaps the purchase and use of desirable products might increase the positive emotions that materialists experience and reduce the incidence of negative feelings, at least while thinking about and interacting with these products.

Three cross-sectional studies that examined product-evoked emotions provide conflicting results. In a survey of adult consumers, Richins, McKeage, and Najjar (1992) found no relationship between materialism and the intensity of positive emotions associated with a recent important purchase. They did, however, find that high-materialism consumers reported more negative emotions, such as anxiety, fear, and envy.

Two more recent studies of college students found conflicting results. Nicolao, Irwin, and Goodman (2009) found no relationship between materialism and respondents' perceptions that a purchase had made them happy, while Millar and Thomas (2009) found a positive association between materialism and happiness derived from a purchase. Neither study measured negative affect. A limitation of all three studies is that they took a single snapshot of product-related feelings and did not examine how these feelings might change during the purchase process.

In summary, the evidence about whether acquisition enhances positive feelings for materialists is equivocal. Although materialistic consumers believe that acquisition will make them happier, nonmaterialistic consumers tend to dismiss this idea, wondering how buying a hunk of metal and plastic in the shape of a car could possibly make someone happy when that person already has a perfectly good automobile. Yet it is entirely possible that such purchases do

make materialists happy for a time and may serve as a relief or distraction from the general negative affect in daily life that they may experience more keenly than their low-materialism peers.

The research described here examines whether acquisition can generate positive emotions for materialistic consumers. It also expands the analysis of product-evoked emotions to the prepurchase phase of the purchase process, as consumers contemplate and anticipate the purchase of desired goods. This is an additional contribution of the research, as a literature review revealed no studies that examined product-evoked emotions among materialists before purchase.

The first hypothesis tested in this research concerns the relationship between materialism and positive product-evoked emotions. Because of the limited scope and conflicting findings of the studies cited above, previous literature was not used to formulate a hypothesis. Instead, hypothesis 1 is based on the beliefs of materialists themselves. Studies that use the Material Values Scale (Richins 2004) have consistently obtained high correlations between the subscale concerning the importance that consumers place on goods (the essential definition of materialism) and the subscale measuring beliefs about whether acquisition will bring happiness (e.g., Deckop et al. 2010; Giddens, Schermer, and Vernon 2009). These studies have often involved mature consumers who have had ample opportunities to purchase products and observe their resultant feelings. Hypothesis 1 assumes that consumers' observations in this regard are reasonably accurate. Specifically, it proposes that, consistent with their perception that acquisition brings them happiness, high-materialism consumers will be more likely than others to experience positive product-evoked emotions during the purchase process. This hypothesis is limited to important, nonroutine purchases. It is not expected, for example, that materialists would experience more positive emotions than others from the purchase of groceries or other mundane items. The positive emotions examined in this study are joy, excitement, contentment, optimism, and peacefulness: emotions that are closely allied with well-being.

H1: Higher-materialism consumers (compared to those lower in materialism) will experience more positive emotions when anticipating, purchasing, and using a product that is important to them.

The second hypothesis concerns the relationship between materialism and negative product-evoked emotions. In this regard, it is important to recognize that emotion theorists have demonstrated the independence of positive and negative affect (Diener and Emmons 1984; Watson and Tellegen 1985). That is, during some specified period of time, a person might experience any combination of positive and negative emotions—the presence of both, the absence of both, or the presence of one but not the other. For example, before an important life event such as marriage or a job change, it would be common to experience happiness and excitement while simultaneously experiencing some anxiety and fear. In other situations, just one valence of emotion might pre-

dominate, for example, after one's house has been broken into or while relaxing on the beach during vacation.

Because positive and negative emotions can be mixed, the presence of positive product-evoked emotions predicted in hypothesis 1 and materialists' beliefs that acquisition brings them happiness are not relevant to predicting the incidence of negative product-evoked emotions among materialists. To form hypothesis 2, we instead look at the role acquisition plays in the lives of these consumers. By definition, materialists place a high value on goods, and materialists are more likely than others to use products to express their identities and gain respect (Dittmar, Long, and Bond 2007; Richins 2011). Such motives are likely to raise the stakes in a purchase, possibly creating more anxiety and concern about making the "right" choice. For this reason, and consistent with findings of the one published study that has examined materialism and negative product-evoked emotions, hypothesis 2 proposes that materialists will experience stronger feelings of fear and anxiety during the purchase process. In addition, because of the association of envy and discontent with materialism in the literature (Belk 1985; Linden 1979), hypothesis 2 also proposes that materialists will experience these feelings more strongly than others do.

H2: Higher-materialism consumers (compared to those lower in materialism) will experience stronger emotions of fear, anxiety, envy, and discontent when anticipating, purchasing, and using a product that is important to them.

Another negative product-evoked emotion possibly associated with materialism is guilt. Because materialists place a high value on goods and are more likely to engage in impulse purchasing (Podoshen and Andrzejewski 2012), they may be more likely to experience product-related guilt. However, because products are so important to them, it may be easier for materialists to justify the purchases they make and eliminate any guilty feelings that may arise. Because of these conflicting possibilities, the emotion of guilt is measured in this research, but no prediction is made about its relationship with materialism.

Hypotheses 1 and 2 were tested in study 1, a survey of adult consumers described in more detail below. In study 1, hypothesis 2 was supported for all three stages of the purchase process; hypothesis 1 was supported at the pre-purchase but not the postpurchase stage. Study 1 findings suggest that before purchase, high-materialism consumers experience significantly stronger positive emotions (compared to low-materialism consumers), but after purchase their level of positive emotions declines to be the same as, or slightly lower than, that of low-materialism consumers. The results show a pattern of hedonic elevation and then hedonic decline across the purchase process for high (but not low) materialism consumers. However, because study 1 was a cross-sectional survey, these findings are only suggestive. Study 2, a longitudinal study, was carried out to examine the validity of study 1 findings concerning hedonic

trajectories for high- and low-materialism consumers and tested the following hypotheses:

- H3a:** At the prepurchase stage of the purchase process, positive product-evoked emotions experienced by higher-materialism consumers will be higher than those experienced by lower-materialism consumers.
- H3b:** Hedonic decline in product-evoked emotions will occur for higher-materialism consumers between the pre- and postpurchase stages of the purchase process. No such decline will occur for lower-materialism consumers.

UNDERSTANDING HEDONIC DECLINE

The possibility that hedonic decline would occur quickly upon purchase is not anticipated by the literature. The theoretical framework most closely aligned with hedonic decline is hedonic adaptation theory (Frederick and Lowenstein 1999). Numerous studies have shown that a positive change in one's life leads initially to an increase in positive feelings and well-being, but over time people gradually adapt to this change and positive feelings return to their prior (lower) baseline level. Hedonic adaptation is sometimes used to explain materialism (Chancellor and Lyubomirsky 2011; Kashdan and Breen 2007). Theorists have proposed that a gradual hedonic decline after purchase leads materialistic consumers to continually want to acquire more goods so they can recapture the positive feelings they had experienced upon purchase. However, neither the conceptual literature nor empirical studies have addressed the possibility that hedonic decline may occur rapidly once a purchase takes place, and no studies have examined whether hedonic decline takes place at different rates in high- and low-materialism consumers.

A second possible explanation for pre- to postpurchase hedonic decline among high-materialism consumers involves product satisfaction. Because materialists consider products to be so important, it seems plausible that they, more than others, would be able to derive joy and satisfaction from the goods they acquire. However, the hedonic decline among materialists observed in study 1 suggests another possibility. It may be that high-materialism consumers set standards for their acquisitions that are difficult to meet, resulting in lower product satisfaction for high-materialism consumers compared to their lower-materialism counterparts. Satisfaction assessment may occur very shortly after purchase, and to the extent that a product falls short, a consumer would experience weaker positive and stronger negative product-evoked emotions, accounting for the hedonic decline among materialists.

Published research concerning the relationship between materialism and product satisfaction is limited and relates only to satisfaction with possessions a consumer has owned for some time rather than with recent purchases. Sirgy et al. (1998) found no relationship between materialism and

overall satisfaction with possessions. Wang and Wallendorf (2006) found that satisfaction with two possessions judged to have status signaling qualities (sunglasses and cars) was negatively associated with materialism, but satisfaction with two other possessions (sweatshirts and athletic shoes) was not. The relationship between materialism and satisfaction with recent purchases has not been examined. To the extent that materialists are less satisfied with their purchases than other consumers, they would experience less positive affect (Phillips and Baumgartner 2002; Westbrook and Oliver 1991), possibly accounting for the hedonic decline that occurs shortly after purchase. Accordingly, it is proposed that

H4: Postpurchase product satisfaction will be lower for higher-materialism than for lower-materialism consumers when the product they purchase is important to them.

UNDERSTANDING HEDONIC ELEVATION

Study 1 showed that hedonic elevation in product-evoked emotions occurs for high-materialism consumers before purchase. Although hedonic elevation is consistent with the beliefs of materialistic consumers that acquisition brings them happiness, the reasons for this hedonic elevation are not readily apparent. One possible explanation stems from work on transformation expectations, defined by Richins (2011, 145) as “the belief that one’s self or one’s life will be changed in a significant and meaningful way by the acquisition and use of a product.” Materialists are more likely than others to possess such beliefs. For example, they are more likely to believe that acquisition will change the kind of person they are, improve their relationships with others, enable them to have more pleasure in their lives, and enhance the effectiveness with which they carry out daily tasks (Richins 2011).

Cognitive appraisal theory provides an explanation of how these beliefs might influence the positive prepurchase emotions experienced by materialists. This theory proposes that the form and intensity of experienced emotions are linked to cognitive representations of a situation (Smith and Ellsworth 1985). For example, when a person views a situation as likely to further the achievement of personal goals, that person experiences positive emotions (Roseman 1991). Applying appraisal theory in the prepurchase situation, to the extent that high-materialism consumers have strong transformation expectations (i.e., appraise an acquisition as enhancing achievement of important personal goals), they are likely to experience strong positive emotions in anticipation of that purchase. Thus, transformation expectations can be expected to mediate the relationship between materialism and positive prepurchase emotions, as stated in hypothesis 5.

H5: The relationship between materialism and positive product-evoked emotions before acquisition is mediated by the transformation expectations the consumer holds for the contemplated acquisition.

The hypotheses described above were tested in three studies. The first examined the validity of materialistic consumers’ beliefs that acquisition brings them happiness by assessing whether materialistic consumers experience more positive product-evoked emotions across stages of the purchase process. The second study was a longitudinal investigation of product-evoked emotion trajectories across the purchase process that also examined whether satisfaction processes could account for hedonic decline among high-materialism consumers. The third study assessed whether transformation expectations might account for the positive product-evoked emotions experienced by high-materialism consumers before purchase.

STUDY 1

Study 1 was a mail survey that examined product-evoked emotions at three stages of the purchase process: before purchase, while shopping, and after purchase. It was designed to test hypotheses 1 and 2, which propose that materialists experience stronger positive and stronger negative product-evoked emotions than do other consumers during the purchase process.

Sample

Surveys were mailed to 1,350 consumers in the Midwestern United States. Of these, 34 were returned as undeliverable, and 434 were returned completed by respondents, for a response rate of 33.0%. Respondents were randomly assigned to receive one of three questionnaire versions. Version 1 asked about emotions experienced when contemplating an important purchase the respondent hoped to make, version 2 asked about emotions experienced while shopping for a recent important purchase, and version 3 asked about emotions experienced when using or contemplating an important product purchased within the preceding 6 months.

Completed version 1 surveys were returned by 142 respondents. For version 2, 156 surveys were returned, but 38 were excluded because the shopping experience reported by respondents had occurred more than 2 months before the survey or because the item they had shopped for was not important to them. For version 3, 17 of the 136 completed surveys were excluded because the purchase described by the respondent occurred more than 6 months earlier. (The 2-month cutoff for version 2 was used to reduce measurement error due to participants forgetting how they had felt during the shopping experience. Responses in version 3 were not affected by forgetting because respondents reported ongoing experiences with a product they owned.) To reduce product heterogeneity, surveys describing items costing less than \$100 and more than \$40,000 were excluded, leaving 132, 111, and 113 respondents in versions 1, 2, and 3, respectively, and yielding a total sample size of 356.

The sample was 43.3% male, with a median age in the 36–45-year-old category. Among respondents, 59.0% were married and 39.0% had a college or graduate degree. The

demographic profile was consistent with the demographics of the population at large, except that males and lower education consumers were slightly underrepresented.

Measures

Each survey version began by asking respondents to describe an anticipated or a recent purchase. Respondents described the item, when it was purchased (or was expected to be purchased), and the item's cost. They also rated how important and meaningful the product was to them.

Emotions. In all three versions, product-evoked emotions were measured using items from the Consumption Emotions Set (Richins 1997). The response scale ranged from 0 (not at all) to 4 (very strongly). Five positive emotions (joy, excitement, contentment, optimism, and peacefulness) and the negative emotions of fear, anxiety, envy, and discontent were each assessed by multiple items from the Consumption Emotions Set. A single item was used to measure guilt. (The questionnaire also included other emotion items that are not relevant to the hypotheses; these items are not discussed further.) In version 1, respondents reported on emotions experienced when thinking about owning and using the product they anticipated purchasing; in version 2, they reported on emotions experienced while shopping for the product; and in version 3, they reported on emotions experienced when thinking about or using the recently purchased product. Positive and negative emotion items were intermixed, and a counterbalanced design was employed in which one-half of respondents completed the items in one order, and the other half completed the same items in reverse order. Subsequent analysis showed no effect for order in any of the three survey versions, so this factor is not discussed further. In hypothesis tests, the scales for each of the positive and negative emotions were examined separately to capture the different shades of meaning associated with different emotions. Coefficient alpha for the emotion subscales ranged from .70 to .86.

Materialism. This variable was measured by the 15-item version of the Material Values Scale (Richins 2004), the scale most commonly used to assess materialism in the social sciences. Coefficient alpha was .88. The survey also included a measure of socially desirable response (SDR) bias (Crowne and Marlowe 1960; Paulhus 1992; $\alpha = .78$) and demographic items.

Results

Preliminary Analysis. The products reported by respondents were grouped into nine categories. Goods most frequently mentioned by respondents were vehicles (30.9%), electronics such as televisions or computers (12.4%), clothing (11.8%), and furniture (11.2%); median cost was \$990. There was no relationship between materialism and product importance ($r = .05$) or between materialism and product cost ($r = -.09$).

The type, cost, and perceived importance of products de-

scribed by respondents were compared across the three versions of the questionnaire. The type of products described in versions 2 and 3 did not differ from each other ($\chi^2(8) = 10.16$, NS) but did differ from the version 1 survey ($\chi^2(16) = 50.81$, $p < .001$) with respect to two product classes. People completing version 1 were more likely to mention a vehicle and less likely to mention clothing than were respondents completing versions 2 and 3. Similarly, the cost of the focal product did not differ between versions 2 and 3 (contrast $t = .55$, $df = 353$, NS) but was significantly higher for version 1 (contrast $t = -5.40$, $df = 353$, $p < .001$). Accordingly, product type and cost were controlled for in all analyses. There was no difference in product importance ratings across the survey versions ($F(2, 353) = 1.54$, NS). Respondent demographic characteristics and materialism scores also did not differ across versions.

Correlations with SDR were calculated for all variables. For one variable (materialism), the correlation with SDR was above the .20 cutoff described by Steenkamp, De Jong, and Baumgartner (2010; $r = -.23$). This correlation is not unexpected because of the association of both materialism and moral behavior with a third variable—religiosity. Because highly religious people are less likely to hold materialistic values (La Barbera and Gürhan 1997) and more likely to behave in ways consistent with items on SDR scales (e.g., less likely to lie, steal, or break the law) and because data collection was anonymous, the SDR correlation with materialism most likely represents shared variance in these two constructs rather than bias, and statistical adjustment due to SDR is unwarranted (Steenkamp et al. 2010). (To assuage possible concerns about the Steenkamp et al. recommendation, all analyses were conducted both with and without an SDR statistical adjustment; the differences were very small, and there were no significant changes in coefficients.)

Hypothesis Tests. Hypotheses 1 and 2 propose that materialists have stronger positive and negative emotions at all stages of the purchase process than do other consumers. These hypotheses were tested with regression models that were estimated separately for each of the emotion scales, which served as the dependent variables. The regression models included control variables (product type and cost), materialism, and two dummy variables that indicate stage of the purchase process (as represented by the different versions of the survey). The model also contained two terms representing the interaction between materialism and each dummy variable. A significant interaction term would indicate that differences in emotion levels between stages of the purchase process were not equal for high- and low-materialism consumers. Finally, the model included a term to represent the interaction between product cost and materialism. A significant coefficient for this interaction would indicate that high- and low-materialism consumers respond differently to less versus more expensive products.

Results of the regression analyses are shown in table 1. For all emotions included in the hypotheses except peacefulness, the coefficient for materialism was significant and

TABLE 1
REGRESSION TESTS FOR CHANGE IN PRODUCT-EVOKED EMOTIONS ACROSS
THE PURCHASE PROCESS (STUDY 1): β COEFFICIENTS

	Joy	Excitement	Contentment	Optimism	Peacefulness	Fear	Anxiety	Envy	Discontent	Guilt
Materialism	.47***	.41***	.43***	.27**	.08	.25**	.35***	.30**	.24**	.12
D1	-.02	-.06	-.01	.16**	.13*	.18**	.21***	.00	.15**	.05
D2	.02	-.07	.08	.05	.15*	.06	.04	-.08	.07	.06
Materialism \times D1	-.16*	-.07	-.21**	-.07	-.10	-.06	-.02	-.05	-.01	-.10
Materialism \times D2	-.36***	-.23***	-.27***	-.25***	-.21**	-.06	-.12	-.09	.01	.01
Cost	.09	.21***	.10*	.15**	-.03	.28***	.24***	.07	.06	.03
Materialism \times cost	.12*	.11*	.11*	.10*	-.01	.05	.04	-.03	-.03	-.03

NOTE.—D1 is a 0–1 dummy variable coded 1 if the respondent completed the questionnaire concerning shopping; D2 is a 0–1 dummy variable coded 1 if the respondent completed the questionnaire concerning postpurchase use of the product.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

positive, indicating that more materialistic consumers experience more positive emotions and more negative emotions on average during the purchase process. This finding is qualified by interactions. For all five of the positive emotions, a significant interaction between materialism and one or both of the dummy variables (which contrast postpurchase emotions with prepurchase emotions) was obtained. For all positive emotions except peacefulness, there was also a significant interaction between materialism and cost. The interactions are shown in figure 1, which plots the intensity of each emotion for lower- and higher-materialism respondents (± 1 SD) with respect to lower- and higher-cost products (± 1 SD) across the stages of the purchase process.

As figure 1 illustrates, for higher-materialism respondents, a pattern of hedonic elevation and then decline during the purchase process was observed. Positive emotions were strongest before the purchase was made, as respondents thought about acquiring and using the product, or during the purchase experience itself. This hedonic elevation was more pronounced for higher-cost purchases. The hedonic elevation experienced by higher-materialism consumers was followed by hedonic decline in which the reported intensity of positive emotions was lower after purchase.

For lower-materialism respondents, there was no decline across the purchase process for any of the positive emotions. Instead, these respondents reported low levels of positive emotion when contemplating a desired important purchase, with levels tending to rise across the purchase process. Their emotion responses did not differ between high- and lower-cost items.

The incidence of negative emotions was low in this study, as shown in figure 2, and these emotions did not vary much across the purchase process. However, for all of the negative emotions included in hypothesis 2 (fear, anxiety, envy, and discontent), intensity was significantly higher among high-materialism consumers than among low-materialism consumers. No hypothesis was advanced about the relationship between guilt and materialism because arguments can be made for both a positive and a negative relationship. Analysis revealed no association between materialism and guilt,

and there was no variation in levels of guilt across the purchase process. For this reason, no graph for guilt has been included in figure 2.

Discussion of Study 1

Study 1 provided qualified support for hypotheses 1 and 2: high-materialism consumers experienced more intense product-evoked emotions than did their low-materialism counterparts when anticipating and, if the product is expensive, when making a purchase. Study 1 findings also suggest that high-materialism consumers experience a hedonic decline during the purchase process, but this interpretation must be qualified due to the cross-sectional nature of the study. Although respondents who completed different versions of the survey were comparable in demographics and in distribution of materialism scores, and statistical controls were used to account for differences in product type and cost between survey versions, the cross-sectional nature of the study does not allow a conclusive statement about the trajectory of emotions for high- and low-materialism consumers. To address this limitation, a second study was carried out.

STUDY 2

Study 2 was a longitudinal survey conducted among students at the University of Missouri. It was designed to examine product-evoked emotion trajectories of high- and low-materialism consumers over the purchase process (hypothesis 3) and to assess whether product satisfaction might account for differences in the emotion trajectories of high- and low-materialism consumers (hypothesis 4). The survey involved three data collections that occurred during the second week of the semester, at the approximate semester midpoint, and during the fourteenth week (2 weeks before final examinations). The first data collection gathered details about an item respondents anticipated purchasing during the semester and asked about emotions associated with the intended purchase. The second and third data collections as-

FIGURE 1

POSITIVE PRODUCT-EVOKED EMOTIONS ACROSS THE PURCHASE PROCESS (STUDY 1)

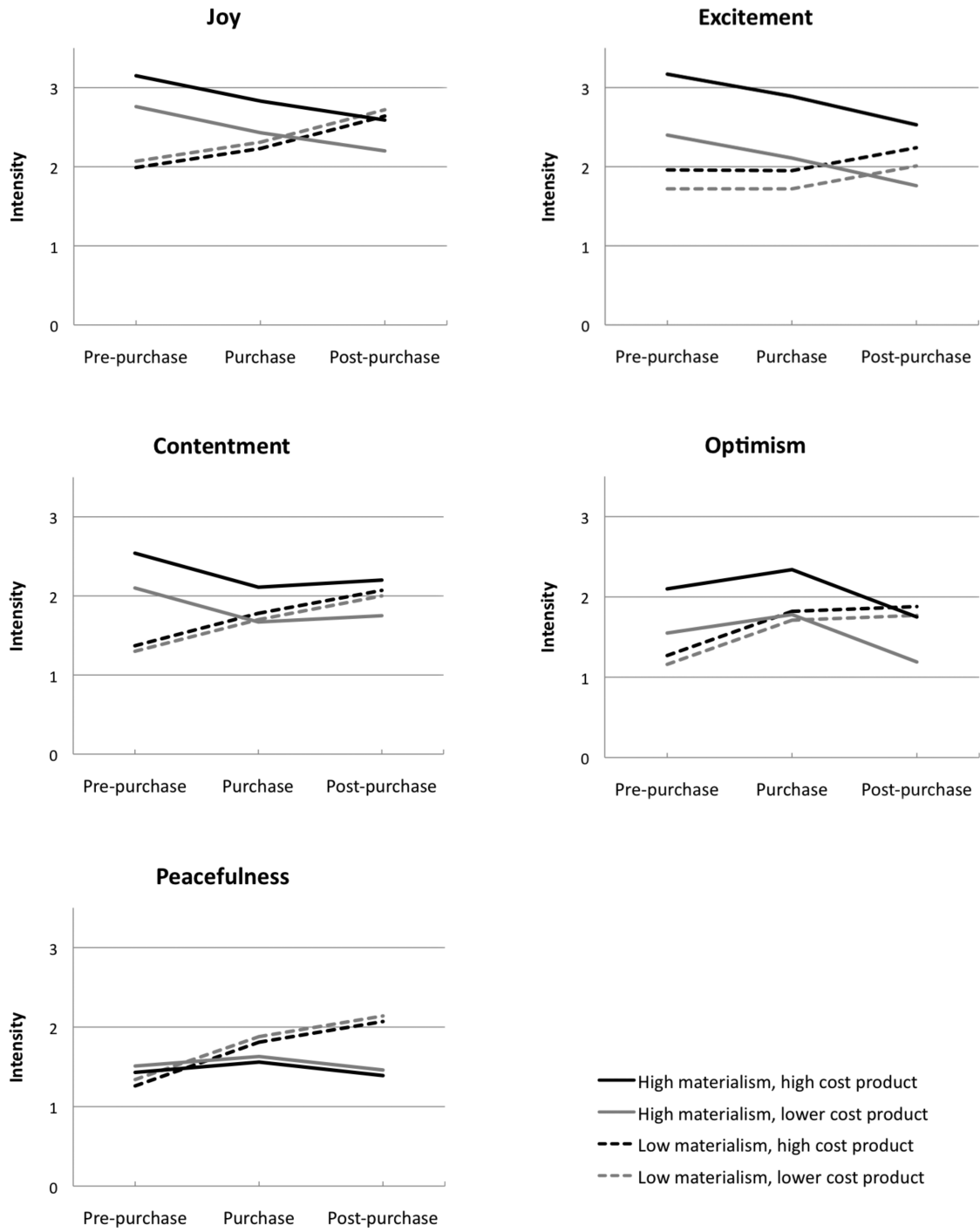
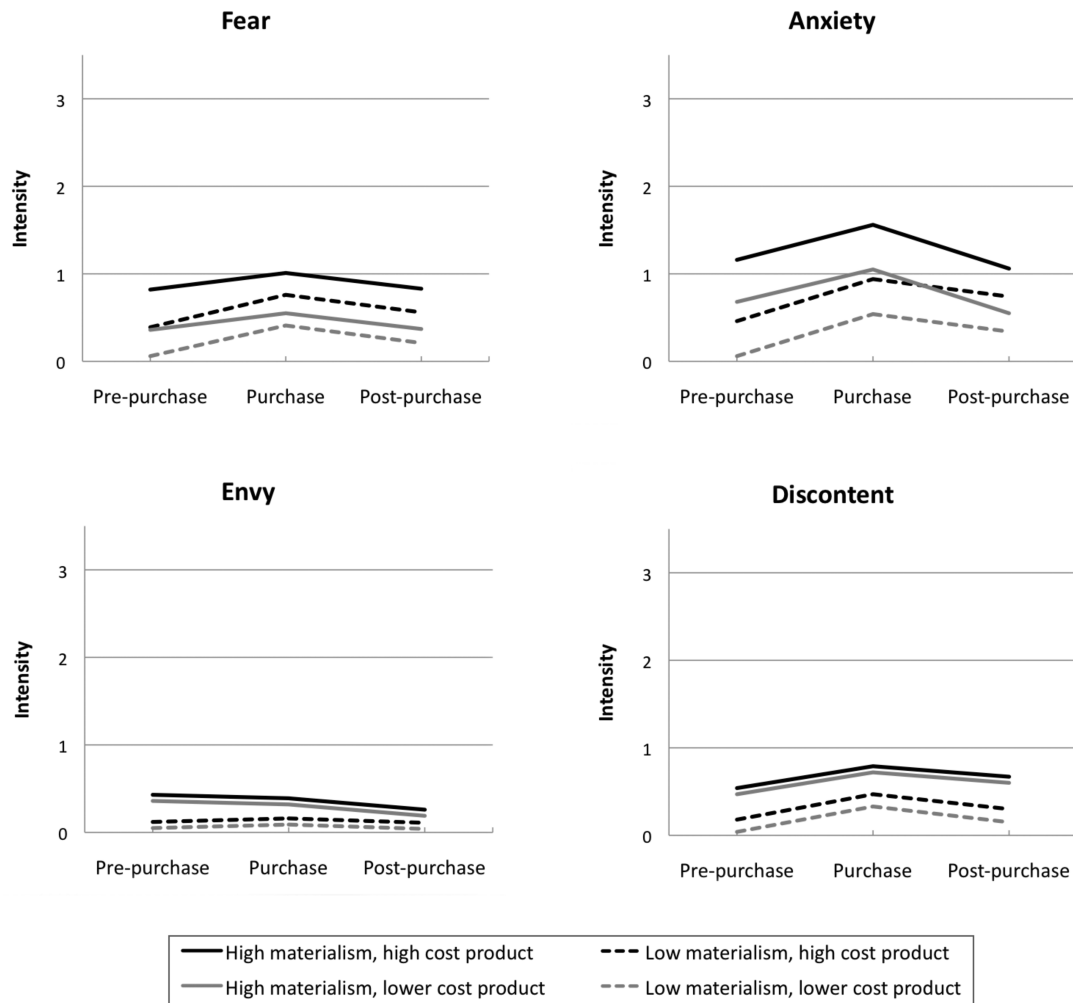


FIGURE 2

NEGATIVE PRODUCT-EVOKED EMOTIONS ACROSS THE PURCHASE PROCESS (STUDY 1)



essed product-evoked emotions experienced after the item was purchased. The surveys also measured materialism, some control variables, and a few other variables not related to this study.

In addition to incorporating a longitudinal design, this study differs from study 1 by examining emotions evoked by important products that are purchased more frequently than the expensive and highly desired products that were the focal stimuli for study 1. This change was necessary so that product-evoked emotions could be assessed both before and after purchase in a relatively limited period of time. Thus, in addition to providing longitudinal data, this study allows an examination of the generalizability of study 1 results to a broader array of goods.

Sample

The initial sample was 329 undergraduate students enrolled in an introductory marketing course who received course credit for their participation. Respondents who did not participate in all three data collections, who incorrectly recalled the anticipated purchase in the second or third data collection, or who did not make the anticipated purchase by the time of the second data collection were excluded from analysis, leaving a sample of 174. The sample was 46.6% male and was composed primarily of juniors and seniors; 32.2% were nonbusiness majors. Responses were anonymous but were tracked over the three data collections by having respondents use the last four digits of their telephone number as an identification code.

TABLE 2

HIERARCHICAL LINEAR MODEL TESTS FOR CHANGE IN PRODUCT-EVOKED EMOTIONS ACROSS THE PURCHASE PROCESS (STUDY 2): PARAMETER ESTIMATES

Fixed and hypothesized effects	Parameter	Joy	Excitement	Contentment	Optimism	Peacefulness	Fear	Anxiety	Envy	Discontent	Guilt
Intercept	γ_{00}	2.385***	1.922***	2.180***	1.540***	1.581***	.180***	.240***	.247***	.176***	.274***
Materialism on intercept	γ_{01}	.030***	.025**	.031**	.032***	NS	.009**	.011**	.011*	.009*	NS
Purchase	γ_{10}	NS	NS	.237*	-.240***	NS	NS	NS	NS	NS	NS
Purchase × materialism	γ_{11}	NS	NS	-.029**	-.031***	NS	NS	NS	NS	NS	NS
Time	γ_{20}	-.040***	-.050***	-.052***	NS	-.030***	NS	NS	NS	NS	NS
Time × materialism	γ_{21}	-.003***	-.003***	NS	NS	NS	NS	NS	NS	NS	NS

NOTE.—To balance model parsimony and statistical power in testing the hypotheses, parameter estimates reported in this table are for reduced models that omit variables with nonsignificant parameter estimates in the full model. Statistical inference from the full model remains the same.

* $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

Measures

The first data collection began by asking respondents to identify a product they expected to purchase during the semester. Respondents were instructed that this product should be something relatively important to them that they expected to keep for at least 6 months. They also answered descriptive questions about the product, estimated its cost, and rated its importance. Subsequent surveys began by asking respondents to identify the anticipated purchase they had described in the first survey.

Emotions were measured with the same items and response scale as in study 1. Coefficient alpha for the emotion subscales ranged from .71 to .86. Materialism was again measured by the Material Values Scale ($\alpha = .86$).

Postpurchase product satisfaction was measured in the second and third data collections with two items commonly used to assess satisfaction (Bearden and Teel 1983; Westbrook and Oliver 1991). One item measured overall satisfaction and the other assessed likelihood of making the same purchase if the respondent could make the decision again (9-point response scales). The correlation between the two measures was .67. Respondents also reported the approximate date the purchase was made and how much the item had cost. Social desirability was also assessed, as were a few additional variables unrelated to the current study.

Results

Preliminary Analyses. The most common purchases reported by participants were clothing (35.6%), recreational electronics such as a television or music player (15.5%), and sport or active recreational equipment (13.2%). Cost for the desired product ranged from \$12 to \$10,400, with a median of \$77. There was no relationship between respondents' materialism level and the perceived importance, type, or cost of the item they purchased. However, some emotions were related to the type and cost of the product, so these product variables were controlled for in analyses. Unlike study 1, there was no significant interaction between cost

and materialism in any analysis performed for this study, possibly because the range of product cost was much lower than in study 1. Thus, materialism × cost interaction terms were not included in the models described below.

Hypothesis 3 Tests. This hypothesis proposes that positive product-evoked emotions will be higher for high-materialism than for low-materialism consumers before purchase and that these positive emotions will decline over the purchase process. Hierarchical linear modeling (Raudenbush and Bryk 2002; Singer and Willett 2003) was used for analysis because it allows assessment of the relationship between consumers' materialism and their emotion trajectories over time. The following set of hierarchical linear models was used to test hypothesis 3.

Level 1 equation:

$$\text{emotion}_{ij} = \pi_{01} + \pi_{1i}\text{purchase}_{ij} + \pi_{2i}\text{time}_{ij} + \varepsilon_{ij}. \quad (1)$$

Level 2 equations:

$$\pi_{01} = \gamma_{00} + \gamma_{01}\text{materialism}_i + \zeta_{0i}, \quad (2)$$

$$\pi_{1i} = \gamma_{10} + \gamma_{11}\text{materialism}_i + \zeta_{1i}, \quad (3)$$

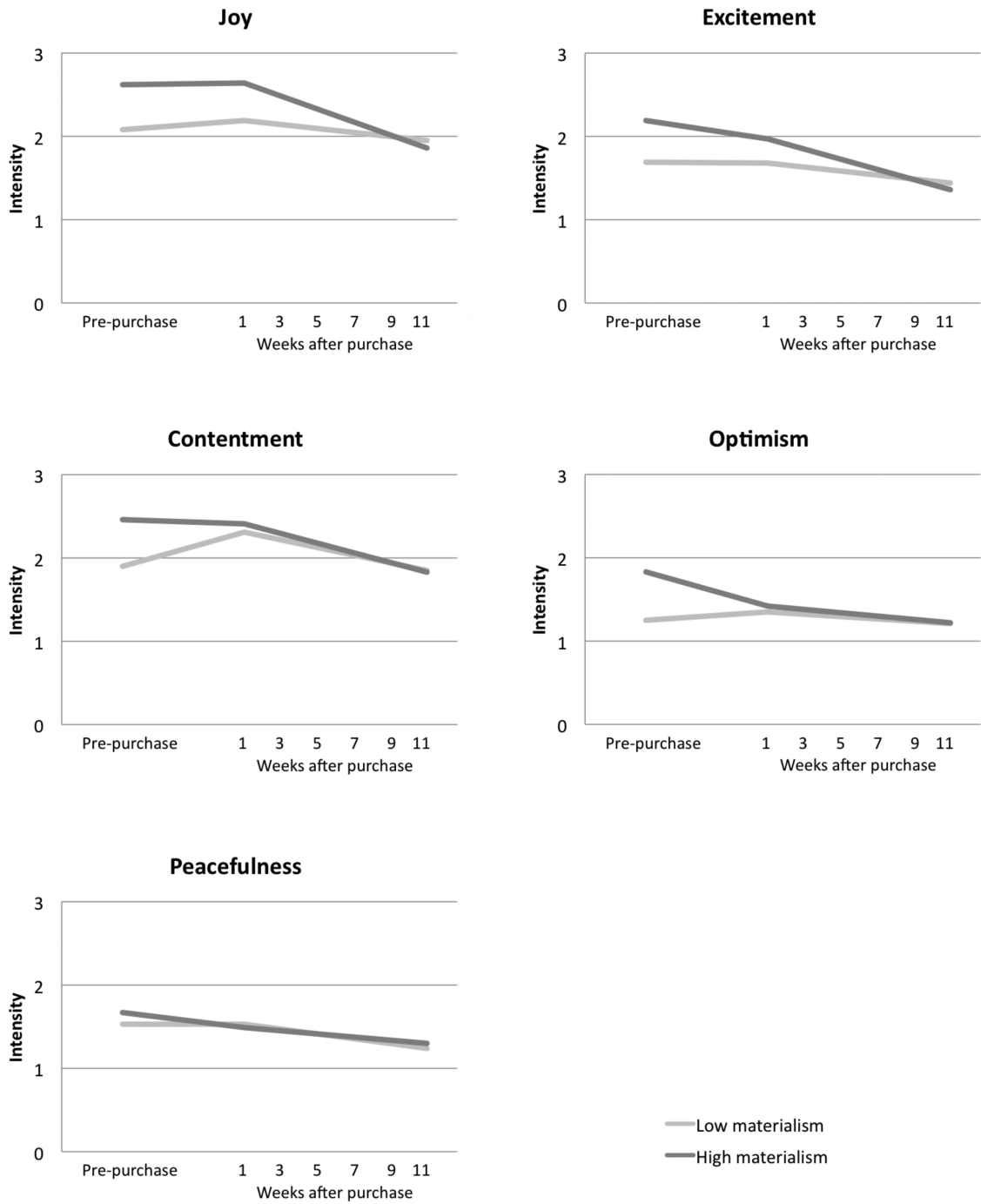
$$\pi_{2i} = \gamma_{20} + \gamma_{21}\text{materialism}_i + \gamma_{2i}, \quad (4)$$

where i = the individual study participant; j = the measurement occasion (data collection 1, 2, or 3); purchase = a dummy variable representing whether the measure was taken prepurchase (0) or after the purchase was made (1); time = time in weeks since the purchase was made (0 for the prepurchase measurement); emotion = product-evoked emotion of joy, excitement, optimism, and so on; and materialism = respondent's score on the Material Values Scale, re-centered on the sample mean.

Separate models were estimated for each emotion using full maximum likelihood estimation. Table 2 reports parameter estimates, and figure 3 shows results for fitted multilevel

FIGURE 3

PRODUCT-EVOKED EMOTIONS ACROSS THE PURCHASE PROCESS (STUDY 2)



models by displaying prototypical trajectories for higher- and lower-materialism respondents (± 1 SD).

The parameter γ_{01} in equation 2 provides the test of hypothesis 3a. A positive coefficient significantly greater than zero indicates that higher-materialism participants had higher levels of emotion at time 0 (before purchase). Consistent with study 1, hypothesis 3a is supported for four of the five positive emotions. For the emotions of joy, excitement, optimism, and contentment, high-materialism participants had significantly higher emotions at the prepurchase stage, as evidenced by the significant positive coefficient γ_{01} for these four emotions.

The remaining parameters in the models are interpreted as follows. A significant coefficient for γ_{10} means that there was a sample-wide shift in the emotion level after purchase, and if γ_{11} is significant it indicates that the amount or direction of shift differed for low- versus high-materialism participants. A significant coefficient for γ_{20} indicates a linear sample-wide change in the emotion across the weeks spanning the purchase process (the 12 weeks from the prepurchase data collection to the second postpurchase data collection), with a negative coefficient indicating a decline in the emotion. A significant coefficient for γ_{21} means the rate of change differed between high- and low-materialism participants, with a negative coefficient indicating a steeper rate of change for high (relative to low) materialism participants.

Two different patterns of results would indicate clear support for hypothesis 3b. The first of these would represent a gradual linear decline in positive emotion among high-materialism consumers over the course of the purchase process. This would be indicated by significant negative coefficients for both γ_{20} and γ_{21} , showing that hedonic decline occurred for high-materialism consumers and thus supporting hypothesis 3b. This pattern emerged for the positive emotions of joy and excitement, as shown in table 2 and figure 2. As figure 2 further illustrates, there was no hedonic decline among low-materialism participants for these two emotions. Taken together, these results support hypothesis 3b.

The second pattern of results clearly supportive of hypothesis 3b would involve a discontinuous decline in positive emotion between the pre- and postpurchase stages of the purchase process. Significant negative coefficients for both γ_{10} and γ_{11} would indicate that hedonic decline occurred between these two stages for high-materialism consumers. This pattern emerged for the emotion of optimism. As figure 2 illustrates, there was no hedonic decline among low-materialism participants for optimism, so hypothesis 3b is supported.

A third pattern, for the emotion of contentment, shows partial support for hypothesis 3b. High-materialism respondents showed a linear decline in contentment across the purchase process, similar to the decline observed for joy and excitement and as predicted by this hypothesis. However, as figure 2 illustrates, low-materialism participants did not show the predicted flat trajectory for contentment. Instead, for these participants prepurchase contentment was

low but rose immediately upon purchase and then began a gradual decline. Thus, hypothesis 3b is only partially supported for this emotion. Finally, for the emotion of peacefulness, there was no difference between high- and low-materialism participants in their emotion trajectories.

Although no hypotheses were advanced concerning negative emotions, data for these emotions were also examined. The reported incidence of negative emotions was low in both the pre- and postpurchase data collections, with mean intensities of prepurchase negative emotions ranging from .14 to .32 (on an averaged 5-point scale ranging from 0 to 4). The significant positive coefficients for γ_{01} for these variables in table 2 show that high-materialism participants reported higher levels of negative emotions (except guilt) than did lower-materialism participants, and the lack of significant parameter estimates involving purchase or time indicate that the level of these emotions did not change significantly across the purchase process for either low- or high-materialism study participants.

Hypothesis 4 Tests. This hypothesis proposes that materialists (compared to other consumers) will have lower satisfaction with their important purchases. If this hypothesis is supported, low product satisfaction could explain the hedonic decline that occurs for high-materialism consumers during the purchase process. Hypothesis 4 was tested by regression analysis in which postpurchase satisfaction was the dependent variable; independent variables were materialism, product importance, and the materialism \times importance interaction. Analyses were conducted separately for the two postpurchase data collections. Although the coefficient for materialism was not significant in either regression analysis ($\beta = -.05$ and $-.09$ for first and second postpurchase measures, respectively, NS), the interaction between materialism and product importance did reach significance ($\beta = -.21$, $p < .01$ for first satisfaction assessment; $\beta = -.14$, $p < .10$ for second assessment). These results indicate a negative relationship between materialism and product satisfaction when the product is important to the purchaser but no relationship between these two variables when product importance is lower.

This finding supports hypothesis 4 and further suggests that the hedonic decline experienced by high-materialism consumers may be due in part to low satisfaction with the things they purchase, particularly when the item is important. However, further analysis reveals that the relationship between satisfaction and positive emotions, while significant, is not especially strong (average correlation between satisfaction and positive emotions at the two postpurchase data collections were .18 and .16; in regression analysis, interactions involving materialism, satisfaction, and product importance were not significant). This weak association indicates that satisfaction processes cannot completely explain hedonic decline and that additional factors may be involved. Some possible factors are described later in the general discussion.

Discussion of Study 2

Study 2 was designed to more rigorously test the finding in study 1 that high- and low-materialism consumers differ in their product-evoked emotion trajectories across the purchase process. This longitudinal study confirmed that high-materialism consumers experience prepurchase hedonic elevation, followed by hedonic decline after the purchase has occurred. Low-materialism consumers, however, had little variation in the experience of product-evoked emotions during the purchase process, manifesting relatively flat emotion trajectories.

Together, results from studies 1 and 2 allow us to draw some conclusions about emotion trajectories during the purchase process. From study 1, among high-materialism consumers there are three distinct trajectories of positive emotions. Some positive emotions—joy, excitement, and contentment—are highest before purchase and decline across the stages. In the second trajectory, exemplified by optimism, the emotion peaks at the point of purchase (perhaps because the desired transformations to be wrought by purchase seem especially imminent) and declines thereafter. In both of these patterns, positive emotions are significantly higher for expensive purchases than for moderately priced ones. Study 2 shows that the decline in positive emotions for high-materialism consumers starts very shortly after purchase and continues until, by the end of that study, the positive emotions evoked by their purchases are at the same level as their lower-materialism counterparts.

In the third trajectory, the positive emotion (peacefulness) was essentially flat across the purchase process for high-materialism consumers and did not differ for high versus moderately priced purchases. For materialists, peacefulness may not be an emotion that is associated with consumption.

For low-materialism consumers, there appears to be one trajectory common to the positive product-evoked emotions measured in these studies. A consistent finding from both study 1 and study 2 is that low-materialism consumers' positive emotions remain relatively flat or trend slightly upward across the purchase process (rather than downward, as it did for high-materialism consumers). Furthermore, study 1 indicates that these emotions are unaffected by the cost of the good, at least at the levels measured here: on average, low-materialism consumers experience the same amount of joy whether the product is a new coffee maker or a new car.

Negative emotions were much less common than positive ones in these studies and showed only modest variation across the purchase process. Fear and anxiety were the most common of the negative emotions measured and, not surprisingly, were more intense for more expensive goods. The negative product-evoked emotions of fear, anxiety, envy, and discontent were significantly higher for more materialistic respondents, but both studies found no relationship between materialism and the experience of guilt.

Consistent with materialists' beliefs that the acquisition of goods brings them happiness, hedonic elevation among high-materialism consumers was observed in both studies

1 and 2, but neither study addressed possible reasons for this hedonic elevation. Study 3 examines whether transformation expectations might be responsible for these heightened positive emotions, as proposed by hypothesis 5.

STUDY 3

This mail survey of adult consumers focused on prepurchase processes by assessing transformation expectations, product-evoked emotions, and materialism. Hypothesis 5 proposes that transformation expectations held by materialistic consumers may account, at least in part, for prepurchase hedonic elevation, and study 3 tests this hypothesis.

Sample

Surveys were mailed to a random sample of 525 consumers in the Midwestern United States. Questionnaires were returned by 180 respondents, for a response rate of 34.3%. Participants described a wide array of products they anticipated purchasing, from relatively inexpensive clothing items to a new house. To reduce product heterogeneity, surveys describing items costing less than \$100 and more than \$40,000 were excluded, leaving a sample of 171 for analysis. The resulting sample was 47.4% male, and the median age was in the 35–44-year-old age group. Among respondents, 55.0% were married and 35.1% had a college or graduate degree. The demographic profile was consistent with the demographic characteristics of the population at large, except that lower education consumers were slightly underrepresented.

Measures

Transformation Expectations. These expectations were measured using the scale developed by Richins (2011). Respondents described something they hoped to buy within the next few months or years and described how they would use the item, the anticipated date of purchase, and expected cost. They then completed the Transformation Expectations Scale (see the appendix); coefficient alpha for the subscales ranged from .79 to .85.

Emotions were measured with the same items and response scale as in study 1. Because this study is concerned with hedonic elevation, only findings for positive emotions are reported. Coefficient alpha for the emotion subscales ranged from .70 to .86. Materialism was again measured by the Material Values Scale ($\alpha = .88$). Demographic variables and SDR tendency were also measured.

Results

Preliminary Analysis. The desired goods most frequently mentioned by respondents were vehicles (39.2%), electronics such as televisions or computers (18.7%), furniture (7.6%), home improvements (7.6%), and appliances (6.4%). The median estimated cost for the desired product was \$3,600. About a quarter of respondents (27.5%) ex-

pected to purchase the item within 3 months, while 10% expected to wait more than 2 years before purchasing; median anticipated wait time was 8 months. The relationships between materialism and anticipated product cost ($r = .08$), purchase proximity ($r = -.08$), and perceived product importance ($r = .14$) were not significant. Transformation expectations and some product-evoked emotions were related to the type or cost of the product the respondent anticipated purchasing, so these variables were controlled for in analysis. As in study 1, there were significant interactions between product cost and materialism for the positive emotion variables (but not for the transaction expectations variable). Because these interactions did not affect hypothesis tests, they are not discussed further.

Materialism and Hedonic Elevation. Consistent with findings of studies 1 and 2, prepurchase hedonic elevation was again observed for higher-materialism study participants. As shown in table 3, column 1, in regression analysis significant relationships between materialism and product-evoked emotions were observed for joy, excitement, contentment, and optimism (all $p < .001$). The relationship between materialism and peacefulness was not significant. As observed in studies 1 and 2, data suggest that the state of desiring a product appears to be inherently more pleasurable for materialists than for those low in materialism.

Materialism and Transformation Expectations. Richins (2011) found a positive relationship between materialism and transformation expectations, and that finding was replicated here (see table 4). The association was strongest for self-transformations ($\beta = .47, p < .001$) and for hedonic transformations ($\beta = .40, p < .001$).

The Mediating Role of Transformation Expectations. Hypothesis 5 proposed that transformation expectations mediate the relationship between materialism and positive prepurchase emotions. Mediation tests were undertaken to test

TABLE 3

MEDIATION ANALYSIS FOR EFFECTS OF MATERIALISM AND TRANSFORMATION EXPECTATIONS ON POSITIVE PREPURCHASE EMOTIONS: REGRESSION RESULTS

Dependent variable	(1)	(2)	(3)	(4)
Joy	.38***	.56***	.17*	.0219***
Excitement	.35***	.59***	.09	.0313***
Contentment	.36***	.56***	.12	.0276***
Optimism	.28***	.58***	.05	.0271***
Peacefulness	.12	.41***	-.07	.0201**

NOTE.—Column data are as follows: (1) Zero-order relationship between materialism and the prepurchase emotion (β); (2) relationship between the four transformation expectations and the prepurchase emotion (R); (3) relationship between materialism and prepurchase emotion when transformation expectations mediators have been accounted for (β); and (4) bootstrap coefficient for $a \times b$, the total indirect effect of materialism on prepurchase emotion through the four transformation expectation mediators.

* $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

TABLE 4

RELATIONSHIPS BETWEEN MATERIALISM AND TRANSFORMATION EXPECTATIONS

Transformation expectation	β
Self	.47***
Relationship	.29***
Hedonic	.40***
Efficacy	.24***

*** $p < .001$.

that possibility, using the Preacher-Hayes bootstrap procedure (Zhao, Lynch, and Chen 2010). Tests were conducted separately for each of the five emotions. In each test, materialism was the independent variable, the four transformation expectations variables were the mediating variables, and one of the emotion measures was the dependent variable. The mean indirect effect of materialism on each prepurchase emotion, as mediated through transformation expectations, was positive and significant for all five emotions, with a 99% confidence interval excluding zero. These findings support hypothesis 5.

Detailed results are shown in table 3. Because there are five mediation tests, each with four mediators, the table has been simplified by reporting regression results rather than all 55 of the $a, b, a \times b, c,$ and c' coefficients from the Preacher-Hayes bootstrap analyses. Column 1 of table 3 shows the zero-order relationship between materialism and each of the positive emotions (analogous to c' in Zhao et al.'s mediation notation). Column 2 shows the multivariate relationship between transformation expectations and positive emotions (analogous to path b in mediation notation), and column 3 shows the relationship between materialism and positive emotions after the effect of the mediating variables has been removed (analogous to path c). Column 4 reports the bootstrap coefficient for $a \times b$, the total indirect effect of materialism on each prepurchase emotion through the four transformation expectation mediators. (Refer to table 4 to see coefficients analogous to path a .)

Using the terminology of Zhao et al. (2010), indirect-only mediation was observed for four of the five positive prepurchase emotions (excitement, contentment, optimism, and peacefulness), meaning that all effects of materialism on these emotions operate through the transformation expectations mediating variables. Complementary mediation was observed for joy, indicating that for this emotion nearly all the effects of materialism operate through transformation expectations, although a small amount of residual covariation may be due to some other unmeasured factor.

Discussion of Study 3

Results of study 3 support hypothesis 5. Materialism was associated with transformation expectations, and these transformation expectations mediate the relationship between materialism and positive emotion experienced while antic-

ipating an important purchase. That is, high-materialism consumers are more likely than others to ascribe transformative properties to the products they desire to acquire, and these beliefs are associated with pleasurable affective states in anticipation of the purchase of a desired good.

Transformation expectations accounted for nearly all the variance in the relationship between materialism and positive prepurchase emotions. This finding suggests that transformation expectations may be the primary mechanism that generates the hedonic elevation high-materialism consumers experience when they contemplate a desired purchase. Because low-materialism consumers are less likely to ascribe transformative powers to products, they are less likely to experience positive emotions when they think about acquiring a product, even when they consider the product to be important or desirable.

GENERAL DISCUSSION

Although emotions have pervasive influence on people's lives and on their product choices and interactions, prior research has not examined in a systematic way the affective processes associated with materialism. Given the important relationships between materialism and consumers' choices, credit practices, and other consumer behaviors (e.g., Dean, Carroll, and Yang 2007; Dittmar and Bond 2010; Henderson-King and Brooks 2009; Watson 2003), this is a significant oversight. The research reported here used both cross-sectional and longitudinal studies to address three issues concerning materialism and product-evoked emotions.

First, this research examined the accuracy of materialists' beliefs that purchasing brings them happiness. While materialists consistently hold this belief, critics often question their validity, as does the common dictum that "money cannot buy happiness." However, until now, the accuracy of this belief has not been examined empirically. Findings from all three studies suggest that materialists' perceptions that acquisition brings them happiness appear to have some basis in reality. Especially before purchase, and to a lesser extent shortly after purchase of a desired object, thinking about the product and its acquisition does seem to cause materialists to experience momentary happiness, excitement, and other positive emotions. Because products are a central focus of materialists' lives, they are likely to think frequently about desired goods and their acquisition. To the extent materialists do this, study findings indicate they are likely to experience at least momentary happiness. This result is consistent with research by Hudders and Pandelaere (2012) showing that materialistic consumers in Belgium who purchase luxury goods report higher well-being than materialistic consumers who do not.

All three studies revealed that high-materialism consumers have more positive product-evoked emotions than their lower-materialism counterparts, at least before purchase. Yet research consistently shows that high-materialism consumers are less happy than others. Together, these findings suggest that while materialists are getting their pleasure boosts from products, those low in materialism are getting emo-

tional fulfillment somewhere else—perhaps through pleasurable experiences (Van Boven 2005), from interpersonal relationships (Myers 2000), from spirituality (La Barbera and Gürhan 1997), or from other intangibles.

Unfortunately, the tendency for materialists to get pleasure from goods causes problems because the positive feelings associated with product acquisition are not durable. Findings from both a cross-sectional and a longitudinal study reported here indicate that for high-materialism consumers, the positive emotions evoked by a product fade quickly after purchase, in some cases in a matter of a few weeks. As Dunn, Gilbert, and Wilson (2011) note, adaptation to new acquisitions is inevitable. For materialists, that adaptation is accompanied by a decline in positive feelings. The pleasures associated with experiences, interpersonal relationships, and other intangibles are less subject to these adaptation effects (Dunn et al. 2011).

It is also worth noting that materialists experience more negative product-evoked emotions than do those low in materialism. Although levels of negative emotions were low in these studies, it is evident that high-materialism consumers experience more fears and worries about their purchases than do other consumers. This may be natural, given the important role that acquisitions play in the lives of materialists, but it may serve to reduce the amount of pleasure a new product brings them and contribute to a reduction in general well-being. The fact that these negative emotions persist after purchase may mean that materialistic consumers have unresolved issues concerning their acquisition, or it may indicate that materialists are generally more likely to experience fear and anxiety than are other consumers.

Somewhat surprisingly, this study revealed no relationship between materialism and the experience of guilt. Materialists spend more and engage in more impulsive spending than other consumers, so one might expect them to also experience more guilt. However, the importance materialists ascribe to products may enable them to mentally justify their purchases and mitigate any guilt feelings that might arise. Another possibility is that materialists experience guilt only when certain conditions are present or within a specific temporal window. For example, when a product is purchased on credit, materialists might feel some guilt if the pleasure evoked by the purchase dissipates before the item is fully paid for.

The second issue addressed in this research concerns possible reasons for hedonic decline among materialists, and study 2 explored the possibility that satisfaction processes may be responsible. Specifically, high-materialism consumers may have especially high expectations for products that cannot be met, resulting in product dissatisfaction upon purchase that would then lower positive product-evoked emotions after purchase. This study found a negative relationship between materialism and product satisfaction for products important to the purchaser, suggesting that the hedonic decline experienced by high-materialism consumers may be due in part to low satisfaction with the things they purchase. However, the weak association between satisfaction and pos-

itive product-evoked emotions indicates that satisfaction processes cannot completely explain hedonic decline and that some other explanation may be involved. One possibility is suggested by economic theory. Economists have long noted that anticipation of a pleasant future event can be pleasurable in itself (Bentham 1789/1970; Jevons 1905; Lowenstein 1987). It may simply be that this anticipation and the state of desire are inherently more rewarding and emotionally satisfying for high-materialism consumers than is the state of ownership, resulting in hedonic elevation before purchase, followed by subsequent hedonic decline.

The third issue addressed in this research concerns possible reasons for the hedonic elevation that occurs before purchase for high-materialism consumers. Although economists have recognized the utility of savoring an anticipated pleasant event, little attention has been paid to why individuals differ in the amount of pleasure associated with purchase anticipation. Study 3 findings suggest that transformation expectations provide an explanation for these individual differences. In this study, high-materialism consumers had higher expectations that the desired purchase would transform their lives in important and meaningful ways, and these expectations mediated the relationship between materialism and prepurchase emotions. Thus, imagining how one's life might be changed by acquisition may be responsible for the heightened pleasure high-materialism consumers experience when contemplating the purchase of a desired good.

Limitations

While this research revealed provocative insights into emotional processes associated with materialism, the studies contained some limitations that must be kept in mind while interpreting results. For one, the time frames within which postpurchase product-evoked emotions were measured in studies 1 and 2 were relatively short—6 months after purchase in study 1 and a shorter period in study 2. Thus, while these studies provide a good look at emotion processes before purchase, they were not of long enough duration to provide a full picture of postpurchase hedonic decline. For example, it is possible that hedonic decline would eventually also occur for low-materialism consumers after purchase, but it was difficult to observe this in the limited time frame.

A second limitation is that the longitudinal data in study 2 involved ordinary purchases for the most part, not the kind of highly desired and more difficult-to-obtain goods that are so often associated with materialistic behavior. However, that the cross-sectional emotion trajectories observed for highly desired products (study 1) were also observed in study 2 with more ordinary products is an indication of the robustness and generalizability of these findings.

Implications and Future Research

One outcome of this research is an increased recognition that materialistic consumers should be given more credit for understanding themselves and what makes them happy. Al-

though low materialists may find it inexplicable, it does seem that desiring things and getting them does indeed generate at least momentary happiness for high-materialism consumers. In ordinary life filled with day-to-day annoyances, disappointments, and tenuous hopes, that is no small thing, and additional research that examines how materialistic consumers derive emotional benefits from their material pursuits is warranted.

But the use of goods to bring happiness has its downside, in part because the positive emotions associated with acquisition are short-lived. Some theorists have proposed a hedonic treadmill in which materialistic consumers continually acquire more desirable goods to recapture the positive feelings they had experienced before hedonic decline sets in after purchase (Chancellor and Lyubomirsky 2011; Kashdan and Breen 2007). While this explanation for materialistic behavior is appealing, it has been subjected to little empirical examination. Although hedonic decline has been observed after significant positive changes in life circumstances, longitudinal studies examining hedonic adaptation and decline after product acquisition have been of short duration (normally 1 week or less) and have involved inexpensive items such as personal care or food products that were given to study participants rather than purchased by them (Kahneman and Snell 1992; Nicolao et al. 2009, study 3; Rozin, Hanco, and Durlach 2006; Wang, Novemsky, and Dhar 2009, study 1). Studies have not examined hedonic adaptation to the kinds of highly desired products that are implicated in materialism. In addition, research has not tested one of the key premises of the hedonic treadmill in the consumption context, that hedonic decline is associated with increased striving to recapture through purchase the positive emotions that have dissipated with time.

Clearly, more research examining the consequences of hedonic decline after purchase is warranted. Longitudinal studies that simultaneously examine the trajectory of emotions evoked by a newly acquired product and the trajectory of desire to acquire additional desirable goods would provide an empirical test of whether the hedonic treadmill operates as it has been assumed to. Such studies would also provide an opportunity to examine whether high- and low-materialism consumers respond to product-related hedonic decline in similar or dissimilar fashion. Similarly, longitudinal studies could examine the possibility that materialists differ from other consumers in affect intensity (Larsen, Diener, and Emmons 1986) and in their sensitivity to hedonic decline. If such differences emerge, it could provide insight into how materialistic consumers use products and acquisition to manage mood states and whether their mood management strategies are successful.

Findings concerning the role of transformation expectations in generating positive product-evoked emotions also have important implications for materialism. Because materialism has been associated with negative outcomes like credit overuse (Watson 2003), marital strain (Dean et al. 2007), and work-family conflict (Promislo et al. 2010), it would be desirable to identify mechanisms by which ma-

terialism can be dampened or expressed in more positive directions. For example, interventions that help materialistic consumers identify alternative and less transitory sources for life transformation apart from acquisition might enable them to experience more positive emotions in other areas of their lives. Alternatively, more research concerning the desire for life transformation can be informative. For example, it would be useful to know whether low-materialism consumers have lower desires for life transformation than do high-materialism consumers or whether they have similar desires but seek transformation from sources other than products. Research in either of these directions might reveal ways to moderate the high level of materialism present in some people.

Another line of research might examine the relationship of transformation expectations with other personal characteristics apart from materialism. For example, prior research has found a modest relationship between neuroticism and materialism (Burroughs and Rindfleisch 2002). Neuroticism is marked by emotion instability (Lovibond and Lovibond 1995), and further research could assess whether both transformation expectations and neuroticism might play a role in the hedonic decline observed among high-materialism respondents in this study.

Additional studies could also synthesize work on transformation expectations with research on affective forecasting. It is well known that consumers make errors in predicting their emotional responses to product acquisition and consumption (Patrick, MacInnis, and Park 2007; Wang et al. 2009). Although participants in the studies described here were not asked to predict future amounts of pleasure and other positive emotions they would experience from acquiring the desired products, the high expectations for transformation possessed by materialists suggest that these individuals also had implicit beliefs that strong positive affect would result from product acquisition and use. Longitudinal research could test the possibility that materialistic consumers make different kinds of forecasting errors than others and also examine the relationship between forecasting errors and transformation expectations.

Finally, research that examines the impact of transformation expectations on product satisfaction and future consumer behavior would be useful. In the three studies reported here, materialistic consumers had high expectations that meaningful life transformations would occur after purchase, yet the decline in positive emotion that occurred after acquisition in studies 1 and 2 suggests that these life transformations may not have occurred to the extent anticipated. Research that specifically examines the extent to which transformation expectations are met for high- and low-materialism consumers could more specifically examine the relationship among transformation expectations, product satisfaction, and product-evoked emotions.

In these areas and others, the research reported here has demonstrated that knowledge of emotion processes and transformation expectations is important to the understanding of materialism, and further investigation on these topics

is likely to yield valuable insights into others aspects of consumer behavior as well.

APPENDIX

TRANSFORMATION EXPECTATIONS MEASURE

Below is a list of ways your life might change if you owned the item you just described. How likely is it that each of these things would happen if you were able to buy this object? If I owned this object . . . (Richins 2011)

Self-transformation

Other people would respect me more
I would feel like a more important person
I'd feel more self-confident
I would become more attractive to other people
My appearance would be improved

Relationship transformation

I would become closer with my friends
I would have more or better quality time with people I care about
I'd have better relationships with others

Hedonic transformation

I would have more fun
I'd have more interesting things to do
I'd enjoy life more

Efficacy transformation

I would be better able to carry out my responsibilities
I'd be more effective in my work or daily life
I would be more efficient in the way I use my time

In scale administration, the transformation labels are omitted and items are presented in random order rather than grouped by subscale. The usual response format for this scale is very unlikely, unlikely, somewhat likely, moderately likely, likely, very likely. For study 3, a 4-point response scale was used due to space limitations on the survey form.

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