# The Silver Lining of Materialism: The Impact of Luxury Consumption on Subjective Well-Being

Liselot Hudders · Mario Pandelaere

Published online: 4 May 2011 © Springer Science+Business Media B.V. 2011

Abstract Materialism is a way of life characterized by the pursuit of wealth and possessions. Several studies have documented that a materialistic lifestyle is associated with diminished subjective well-being. In spite of this, many people continue to pursue materialistic goals rather than pursue goals that are more beneficial for their well-being. The current paper investigates one mechanism that may contribute to the continued pursuit of materialism. In particular, we propose that luxury consumption may reinforce a materialistic lifestyle. To test this possibility, we investigate the relations between luxury consumption, materialism and cognitive and affective subjective well-being aspects simultaneously, in a structural model. The results of a large scale survey in Dutch-speaking Belgium demonstrate that materialistic consumers are more inclined to consume luxury goods than less materialistic consumers. In addition, luxury consumption leads to enhanced positive mood, diminished negative mood and increased satisfaction with life. Furthermore, although the impact on negative and positive mood is not moderated by materialism, the impact of luxury consumption on satisfaction with life is more pronounced for materialistic consumers than for less materialistic consumers. Together, these results indicate that materialistic consumers not only engage more in luxury consumption than less materialistic consumers, but also benefit more from it (at least in the short run). As a result, luxury consumption may be more rewarding for the former than for the latter and consequently, "lock in" materialists in their lifestyle, irrespective of the long-term adverse consequences for self and society.

**Keywords** Materialism · Luxury consumption · Subjective well-being · Status consumption · Hedonic product usage · Reinforcement theory

M. Pandelaere

Department of Marketing, Ghent University, Tweekerkenstraat 2, 9000 Ghent, Belgium e-mail: Mario.Pandelaere@Ugent.be

L. Hudders (🖂)

Department of Communication Sciences, Ghent University, Korte Meer 9, 9000 Ghent, Belgium e-mail: Liselot.Hudders@Ugent.be

#### 1 Introduction

The pursuit of material possessions and the accumulation of income and wealth take a central place in the lives of many consumers (Ger and Belk 1996; Kasser 2002). However, various studies suggest that people who pursue material goals tend to experience lower subjective well-being (Christopher et al. 2009; Kashdan and Breen 2007; Miesen 2009). In particular, high materialistic consumers experience more negative feelings and are less satisfied with life and with specific life domains than less materialistic consumers are (Christopher et al. 2007; Kashdan and Breen 2007).

Considering this negative impact of materialism on subjective well-being (see e.g., Deckop et al. 2010; Karabati and Cemalcilar 2010), it is unclear why people *continue* to pursue material goals. To explain this paradox, we propose that certain aspects of materialistic behavior may be rewarding in short term and, hence, serve to reinforce materialistic goal pursuit (Ahuvia 2008; DiClemente and Hantula 2003; Foxall and Yani-de-Soriano 2005). In particular, we propose that luxury consumption may serve to reward materialistic goal pursuit. To test this possibility, we investigate (1) whether materialism leads to luxury consumption, (2) whether luxury consumption positively affects both cognitive and affective aspects of subjective well-being and (3) whether the effect of luxury consumption on subjective well-being is more pronounced for high materialistic consumers than for low materialistic consumers.

To be sure, we do *not* propose that materialism is beneficial for subjective well-being. We merely claim that some aspect of material consumption may reinforce materialism. In particular, we claim that, in the short term, luxury consumption might alleviate some of the negative consequences of materialism on subjective well-being. This silver lining may be sufficient for consumers to continue to engage in material goal pursuit, possibly sending them down a spiral of increasingly reduced subjective well-being that is hard to escape from due to the short-term rewards. We will develop this argument by discussing how materialism, subjective well-being and luxury consumption interrelate and, subsequently test the proposed hypotheses in a large scale survey.

#### 1.1 Relationship Between Materialism and Subjective Well-Being

A large amount of literature on subjective well-being deals with how and why people experience their lives in positive or negative ways (Ahuvia 2008; Biswas-Diener et al. 2004; Diener 1984, 2000). Early research on subjective well-being mainly focused on '*who is happy*' (Diener 2000). Several studies investigated the impact of various demographic factors, such as age, sex and income on subjective well-being (Busseri et al. 2009). However, life circumstances only account for about ten percent of the variance in subjective well-being (Lyubomirsky et al. 2005). Correspondingly, research on subjective well-being has begun to investigate the processes behind subjective well-being and to determine *why* people are happy (Diener 2000).

A broad range of psychological, biological, motivational, personal and cultural factors have been linked to the concept of subjective well-being (Biswas-Diener et al. 2004; Busseri et al. 2009; González Gutiérrez et al. 2005; Kahneman et al. 1999; LaBarbera and Gürhan 1997; Steel et al. 2008; Stubbe et al. 2005). An important finding is that the goals people pursue seem to have a dramatic effect on their well-being. Self-determination theory (Ryan and Deci 2000) distinguishes between two forms of goal pursuit: extrinsic and intrinsic goal pursuit. A host of correlational and quasi-experimental studies support the idea that, while intrinsic goal pursuit (e.g., close relationships, caring for one's

community, physical health) benefits subjective well-being, extrinsic goal pursuit (e.g., social recognition, wealth, material values) does not, not even when there is a match between value orientation and values emphasized in the environment (Vansteenkiste et al. 2006).

A particular form of extrinsic goal pursuit is materialism, which involves the unbridled acquisition of material goods (Kasser 2002). In consumer research, different views on materialism have been advanced. While Belk (1984, 1985) considers materialism as a collection of personality traits, namely possessiveness, lack of generosity, and envy, Richins and Dawson (1992) consider materialism as a central value, associated with the belief that possessions indicate success and lead to happiness. Various studies investigated materialism in a consumer context and explored the relationship between materialism and a number of psychological and economic constructs. Materialism is found to be an important predictor for time spent shopping and spending (Fitzmaurice and Comegys 2006) and is positively related with the desire for unique consumer products (Lynn and Harris 1997), status consumption (Budiman and O'Cass 2007; Eastman et al. 1997; Heaney et al. 2005; Roberts 2000) and social consumption motivation (Fitzmaurice and Comegys 2006). This implies that materialists use goods to communicate information about themselves to others. More specifically, materialists not only use goods to signal status to others, but also to conform to group norms or to signal their identity to others. Hence, materialists value their possessions even more than interpersonal relationships (Rindfleisch et al. 2009).

Materialistic people consider the possession of goods as a path to personal happiness (Ahuvia and Wong 2002; Fournier and Richins 1991), which is not surprising considering that feelings of insecurity and stress and low levels of self-esteem seem to underlie a materialistic value orientation (Arndt et al. 2004; Chaplin and Roedder John 2007; Fitz-maurice and Comegys 2006; Kasser and Sheldon 2000; Roberts et al. 2005). Still, high materialistic consumers are not as happy as low materialistic consumers (Burroughs and Rindfleisch 2002; Dittmar 2008; Kashdan and Breen 2007; Kasser 2002; Sirgy 1998; Swinyard et al. 2001; Wright and Larsen 1993). Materialistic people typically invest less resources in activities that are related to an intrinsic goal pursuit, such as self-actualization or participation in the social community, which has been shown to be more beneficial to one's subjective well-being than the pursuit of extrinsic goals (Csikszentmihaliyi and Rochberg-Halton 1981; Kasser and Ryan 1993; Richins 1987; Ryan and Deci 2000). In addition, materialism is related to negative and risky consumption behaviors, such as compulsive buying (Dittmar 2005; Dittmar et al. 2007; Rindfleisch et al. 1997; Roberts 2000), smoking (Williams et al. 2000) and substance abuse (Vansteenkiste et al. 2006).

Many studies on the relation between materialism and subjective well-being focus on one particular aspect of well-being. Still, subjective well-being is a multifaceted construct. It consists of a *cognitive* aspect of one's satisfaction with life in general or with specific life domains and of an *affective* aspect measured as the frequency of one's pleasant and unpleasant emotional experiences (Andrews and Withey 1976; Biswas-Diener et al. 2004; Cummins 2000; Diener et al. 1985; Watson et al. 1988; Zhong and Mitchell 2010). In addition, life satisfaction and frequency of pleasant and unpleasant emotions are distinct components of the subjective well-being construct and consequently, they might relate differently to other constructs (Diener et al. 2010). For instance, income seems to be stronger related with the cognitive component of subjective well-being than with the two affective components (Diener et al. 2009).

Previous research mainly focused on the link between materialism and the cognitive aspect of subjective well-being, i.e. satisfaction with life (see e.g., Christopher et al. 2007; Keng et al. 2000; Ryan and Dziurawiec 2001). In general, these studies showed that

materialists are less satisfied with life as a whole and with specific aspects in life, such as standard of living or family life (Swinyard et al. 2001). This negative evaluation of life stems from the fact that materialists value status and appearance goods more than their social connections (Rindfleisch et al. 2009; Ryan and Deci 2000; Solberg et al. 2004). As the pursuit of extrinsic goals may lead to excessive interpersonal comparisons (Lyubo-mirsky and Ross 1997), positional treadmill theory suggests that it is difficult for materialists to improve their relative position in society (Frank 1999). Correspondingly, materialists can never meet their unrealistically high expectations and become disappointed by their pursuit of unsatisfying sources of well-being (Sirgy 1998).

A few studies investigated the impact of materialism on the affective aspects of subjective well-being, i.e. positive and negative affect (Christopher and Schlenker 2004; Christopher et al. 2009; Kashdan and Breen 2007). In general, materialists experience more negative affect and spend more time being unhappy (Christopher and Schlenker 2004; Christopher et al. 2009; Kasser and Ahuvia 2002; Richins et al. 1992). This higher experience of negative affect stems from the fact that materialists have a lower self-esteem, work too hard, report more stress, experience little flow, are more anxious and depressed, have less vitality, report more psychological and behavioral problems and are less healthy (Burroughs and Rindfleisch 2002; Csikszentmihaliyi 1997; Flouri 2004; Kasser 2002; Kasser and Ahuvia 2002; Kasser and Ryan 1993; Richins and Dawson 1992). The relationship between materialism and positive affect, on the other hand, is more ambiguous. Although Christopher and Schlenker (2004) found a negative impact of materialism on positive affect, the majority of studies investigating materialism and affective well-being found a very weak or a non-significant relation between materialism and positive affect (Christopher et al. 2004; Christopher et al. 2009; Kashdan and Breen 2007). This implies that materialism is less strongly related with time spent being happy compared to time spent being unhappy.

In conclusion, while the evidence regarding the relation between materialism and frequency of positive affect has been mixed, materialism appears to be associated with a diminished satisfaction with life and an increased experience of negative affect. Additionally, negative affect might mediate the relationship between materialism and satisfaction with life (Christopher et al. 2009). This leads to the following hypotheses:

H1a Materialism has a negative impact on satisfaction with life.

H1b Materialism has a positive impact on negative affect.

H1c Materialism has no significant impact on positive affect.

H1d Negative affect mediates the relationship between materialism and satisfaction with life.

1.2 Relationship Between Materialism and Luxury Consumption

Luxury brands are brands that are associated with *uniqueness*, which implies a premium quality and/or an aesthetically appealing design, and with *exclusivity*, which implies expensiveness and/or rarity (Caniato et al. 2009; Catry 2003; Kapferer and Bastien 2009; Okonkwo 2007; Phau and Prendergast 2000). Luxury brands are widely desired because - compared to their cheaper counterparts—they offer a symbolic value to their owners in addition to their functional value (Chevalier and Mazzalovo 2008; Dubois and Laurent 1996; Kapferer and Bastien 2009; Vigneron and Johnson 2004; Wiedman et al. 2009; Wong and Ahuvia 1998). While the functional value refers to the premium quality, the

symbolic value of luxury brands lies in the ability to signal a consumer's success, wealth and social achievement to others (O'Cass and McEwen 2004; Rucker and Galinsky 2009; Van Kempen 2007).

Luxury consumption may be especially appealing to materialistic consumers (Belk 1985, 1988; Fournier and Richins 1991; Holt 1995; Mason 1981; Prendergast and Wong 2003; Richins 1994; Rindfleisch et al. 2000; Tatzel 2002, 2003; Watson 2003; Wong 1997; Wong and Ahuvia 1998). First, materialists consider their possessions as a signal of success which implies that they often consume them conspicuously to signal their success and wealth to others (Richins and Dawson 1992). More generally, materialists may use luxuries to construct their identity and to enhance their self-concept by integrating the symbolic meaning of these luxuries into their identity (Bearden et al. 1989; Belk 1985; Dittmar 1994, 2008; Richins 1994; Vigneron and Johnson 2004). Second, materialists consider the consumption of luxury goods as a path to personal happiness (Richins and Dawson 1992; Vigneron and Johnson 2004). Together this suggests that materialists may spend more of their discretionary income on luxuries than low materialistic consumers. This leads to the second hypothesis:

H2 Materialism has a positive impact on luxury consumption.

#### 1.3 Relationship Between Luxury Consumption and Subjective Well-Being

Various studies investigated the relationship between income, consumption and subjective well-being (Bettingen and Luedicke 2009; DeLeire and Kalil 2010; Guillen-Royo 2008; Nicolao, Irwin and Goodman 2009; Xiao and Kim 2009; Zhong and Mitchell 2010). In developing countries, a strong relation between absolute income and subjective well-being is observed. In developed countries, however, this relation is strongly attenuated. It appears that to the extent that one's overall level of consumption contributes to satisfying one's basic needs, absolute income raises one's subjective well-being (Ahuvia 2002; Cummins 2000; Guillen-Royo 2008; Headey et al. 2008; Oropesa 1995; Richins et al. 1992; Witt 2010). After one's basic needs are satisfied, additional income does little to advance one's subjective well-being. In fact, a number of studies found a very weak or even negative relationship between *consumption* and subjective well-being (Ahuvia 2001, 2008; Dutt 2008; Hagerty and Veenhoven 2003; Howel and Howel 2008; Jackson 2008; Kasser 2002; Layard 2005; Mentzakis and Moro 2009). It appears that, while income significantly reduces dissatisfaction, it has only little effect on high satisfaction (Boes and Winkelmann 2010). These diverging effects might be explained by the absolute income hypothesis which states that, once people's basic needs are met, other aspects of life are more determining for subjective well-being (Angeles 2010; Howel and Howel 2008).

Luxury goods are often perceived as un-necessities; that is, as something which is not needed, something sumptuous or superfluous (Berry 1994; Kemp 1998; Vickers and Renand 2003). In this respect, luxury goods are often opposed to necessities (Piron 2000). Consequently, several economists and philosophers have a very negative perception of luxury, because it is linked with ostentation, wastefulness and luxuriance (Frank 1999; Galbraith 1958; Packard 1959; Schor 1998; Twitchell 2002). They believe that luxury is eroding a societies' strength because of the endless struggle for wealth and status that provokes envy and is in contradiction to a sustainable way of life (Berry 1994; Mortelmans 2005). Juliet Schor (1998) and Robert Frank (1999) even state that people who own luxuries are no happier than people without luxuries. These perspectives imply that, in contrast to consumption that serves basic needs, luxury consumption may not advance

subjective well-being. Still, many consumers spend a large amount of their income on luxury brands, even consumers who can hardly satisfy their basic needs (Van Kempen 2007). This suggests that consumers derive some utility from luxury consumption.

Luxury products offer both functional and psychological benefits to consumers (Kapferer and Bastien 2009; Vigneron and Johnson 2004). The functional benefits derive from the fact that luxury products offer an excellent quality to the consumer and deliver pleasure and sensory gratification to the self (Berry 1994; Chevalier and Mazzalovo 2008). This is consistent with research that has demonstrated that hedonic product usage is positively related to subjective well-being (Guillen-Royo 2008; Oropesa 1995; Zhong and Mitchell 2010). In addition, consumers often form expectations about the quality of the brand even before consuming this brand, based on extrinsic characteristics such as price information or brand name (Jain and Posavac 2001). Consumers may assume that premium priced products offer higher quality (Allred et al. 2010). This expectation may affect subsequent consumption enjoyment. As an example, consuming wine with a premium price compared to a low price leads to a higher reported and experienced pleasantness by activating the brain region which is related with pleasure, irrespective of the intrinsic qualities of the product (Plassmann et al. 2008). Together, this suggests that luxury consumption may benefit consumer's *affective* well-being.

Luxury consumption might also affect the *cognitive* aspect of subjective well-being, namely satisfaction with life. Owners of luxury goods demonstrate that they are better off than their peers, which might result in more positive evaluations of well-being (Linssen et al. 2011). Indeed, although several studies indicate that the pursuit of status goals does not lead to a higher subjective well-being (Ahuvia 2008; Linssen et al. 2011; Sheldon and Kasser 1998; Stutzer 2004), people seem to be happier if they earn more than the people they compare themselves with (Angeles 2010; Caporale et al. 2009; Dynan and Ravina 2007; Hagerty and Veenhoven 2003; Mentzakis and Moro 2009). Similarly, luxury consumption might render consumers happier because they believe it provides them with a higher status, not only within their own reference groups but also within their aspiration groups (Clark et al. 2007; Dittmar 2008; Eastman et al. 1999; Mandel et al. 2006). Consistent with this, some studies found a positive relation between status consumption and subjective well-being (Budiman and O'Cass 2007; DeLeire and Kalil 2010).

Together, these results indicate that luxury consumption may positively affect satisfaction with life and positive affect, while it may negatively affect negative affect:

H3a Luxury consumption has a positive impact on satisfaction with life.

H3b Luxury consumption has a positive impact on positive affect.

H3c Luxury consumption has a negative impact on negative affect.

In addition to different benefits of luxury consumption being associated to different subjective well-being outcomes, we also propose that the impact of the symbolic and hedonic benefits of luxury brands on the various subjective well-being dimensions may vary across people. As such, only consumers who value the symbolic consequences of luxury consumption may exhibit enhanced satisfaction with life (i.e., cognitive well-being) from luxury consumption. Because materialistic consumers more readily believe that possessions may signal success and status than less materialistic consumers (Richins and Dawson 1992; Richins 1994; Wong 1997; Wong and Ahuvia 1998), the former may be more likely to judge their own life satisfaction based on their consumption pattern than the latter. Consequently, we expect that luxury consumption should affect the cognitive

well-being more for people who are highly materialistic than for people who are less materialistic. This leads to the following hypothesis:

H4 Luxury consumption has a stronger positive impact on satisfaction with life for high materialistic consumers compared to low materialistic consumers.

It is less clear whether the hedonic benefits of luxury consumption are moderated by materialism and, if so, in what direction. On the one hand, because materialists often view consumption as a road to happiness, they may be more likely to believe that price and quality are strongly related. Consequently, they may have stronger a priori beliefs about the rewarding nature of luxury consumption, which may increase their subsequent enjoyment of it (Plassmann et al. 2008). So, the hedonic benefits may be larger for materialistic than for non-materialistic consumers. On the other hand, the hedonic benefits may also be closely tied to the ability to savor the experiential element of luxury consumption. Savoring is often viewed as an aspect of the more general disposition to be grateful for what one has (Lambert et al. 2009). Gratitude, however, is negatively related to materialism (Froh et al. 2011; Kashdan and Breen 2007). In addition, the fact that materialists prefer material consumption to experiential consumption may suggest that they undervalue the experiential aspects of material consumption. Together, this indicates that the hedonic benefits may be less pronounced for materialists than for non-materialists. In sum, while materialists may have a stronger tendency to view luxury consumption as rewarding and experience it as such, they may also be less likely to savor the rewards. It is a priori not clear which of these processes dominates (if any).

### 2 Overview of Research Aims and Hypotheses

The major aim of this paper is to investigate if luxury consumption may serve to reward a material goal pursuit. In particular, we use structural equation modeling to investigate the relation between materialism, luxury consumption and affective and cognitive well-being. First, we expect that luxury consumption positively affects both cognitive and affective aspects of subjective well-being. In particular, we expect a direct positive impact of luxury consumption on both positive affect and satisfaction with life and a direct negative impact on negative affect. Moreover, we expect an indirect positive impact of luxury consumption on satisfaction with life via both positive and negative affect. Second, we expect that materialistic consumers engage in luxury consumption more frequently than less materialistic ones. As a result, we expect materialism to have a positive impact on both satisfaction with life and positive affect via luxury consumption, while it might have a negative impact on negative affect via luxury consumption. Third, we test whether the benefits from luxury consumption are different for high versus low materialistic consumers. More specifically, we expect that the impact of luxury consumption on satisfaction with life will be higher for high versus low materialists. *Finally*, even though materialism may have a silver lining, through the higher frequency of luxury consumption, we nevertheless expect materialism to exhibit an overall negative effect on subjective well-being. In particular, we expect materialism to be associated with a higher frequency of negative affect and a lower satisfaction with life. In addition, we expect negative affect to partially mediate the relationship between materialism and satisfaction with life.

# 3 Method

# 3.1 Participants and Procedure

We conducted a large scale survey in the Flemish part of Belgium to investigate the relationship between luxury consumption and materialism on the one hand, and affective and cognitive subjective well-being on the other hand. Our survey was collected in 2009 by 584 students in exchange for course credit. Each student filled in the questionnaire and distributed the questionnaire to three other (non-student) people. For privacy reasons we were unable to check if the questionnaires were actually given to others. Therefore, we tested the validity of the data through two alternative procedures. First, we checked if we had a representative sample in terms of gender and age. We compared our data about the gender-age distribution with data from the National Institute for Statistics in Belgium (See Table 1). We have very similar distributions for men. For women, we have slightly more younger and slightly fewer older women compared to the population data, however, our sample is not strongly biased.

Second, we checked for outliers and suspicious response patterns using a multivariate outlier-analysis. Originally, the survey was completed by 2339 respondents. To be sure to work with valid data we eliminated somewhat more cases than strictly needed, but there still remains a large sample considering our large original data file. We calculated the Mahalanobis Distance for the responses on five central variables in our dataset, namely satisfaction with life, positive and negative affect, materialism and luxury consumption. On the basis of this analysis we identified 95 outliers for which the observed Mahalanobis distance exceeded the 99.99% quantile. Furthermore, we excluded another 38 cases that where more than three standard deviations removed from the mean of one of our five central variables. This remains us with a total of 2,206 valid cases (of which 1108 were male); ages range from 16 to 88 years ( $M_{age} = 40.12$ , SD = 17.05).

## 3.2 Measures

# 3.2.1 Subjective Well-Being

We measured the cognitive component of subjective well-being with the Satisfaction with Life Scale of Diener et al. (1985). This scale consists of five items and is a reliable and valid scale (Diener et al. 1999). Respondents used a 1 (strongly disagree) to 7 (strongly agree) response range.

Table 1Proportional represen- tation sample	Sex	Age	Age			
		-25	26–50	50+		
	Male					
	Population (%)	28.8	35.9	35.3		
	Sample (%)	30.0	35.4	34.7		
	Female					
	Population (%)	27.0	35.0	38.9		
	Sample (%)	33.5	35.6	31.0		

To measure the frequency of one's pleasant and unpleasant emotional experiences, we used a shortened version of the positive and negative affect schedule (PANAS; Crawford and Henry 2004; Watson et al. 1988). We used seven items to measure frequency of positive (i.e., interested, attentive, enthusiastic, proud, determined, strong, active) and frequency of negative (i.e., distressed, upset, guilty, hostile, nervous, scared, afraid) emotional experiences, respectively. We used the '*past month*' as reference time point. So, participants had to indicate for the selected emotions how often they had felt them during the past month (ranging from 1 =not at all to 5 =frequently). All scales have a high internal consistency (see Table 2).

#### 3.2.2 Materialism

To measure materialism, we used the 6-item material values scale of Richins (2004), which is a shorter version of the 18-item Richins and Dawson scale (1992). Respondents used a 1 (strongly disagree) to 7 (strongly agree) response range as recommended by Richins (2004). This scale showed to have higher fit indices than the 18-item version of the scale (Richins 2004). In our sample, the general materialism scale has a rather low reliability score (see Table 2). However, the materialism scale evaluates three distinct aspects of materialism: success (i.e., "I admire people who own expensive homes, cars and clothes" and "The things I own say a lot about how well I'm doing in life", inter-item correlation: r = .32, p < .001, centrality (i.e., "Buying things gives me a lot of pleasure" and "I like a lot of luxury in my life", inter-item correlation: r = .41, p < .001) and happiness (i.e., "My life would be better if I owned certain things I don't have" and "I'd be happier if I could afford to buy more things", inter-item correlation: r = .60, p < .001). We conducted a factor analysis of the six items and the scree plot shows that all indicators load on one factor. However, a one-factor solution only explains 39.1% of the variance. Furthermore, in the materialism scale, materialism is presented as a higher-order factor with three lowerorder factors (Richins 2004). A forced three-factor solution accounted for 74.0% of the variance and the rotated component matrix confirmed the utility of the three subscales. For this reason, we will represent materialism as a second-order factor in our measurement model.

#### 3.2.3 Luxury Consumption

Previous scales which are related to luxury consumption measure consumers' attitude towards luxury (Dubois et al. 2005), consumers' tendency to purchase goods for the status that they confer to their owners (Eastman et al. 1999) or the perceived luxuriousness of a brand (Vigneron and Johnson 2004). However, these scales do not measure consumers'

	1	2	3	4	5
1 Luxury	α = .830				
2 Materialism	.316***	$\alpha = .682$			
3 Positive affect	.134***	022(NS)	$\alpha = .768$		
4 Negative affect	$.038^{\dagger}$	.152***	032(NS)	$\alpha = .807$	
5 Life satisfaction	.106***	166***	.282***	257***	$\alpha = .794$

Table 2 Chronbach's Alpha and Pearson correlations

\*\*\* .001-level; \* .10-level

tendency to consume luxury brands, regardless of the underlying motives for this consumption behavior. Dubois and Duquesne (1993) developed a scale to measure luxury consumption more objectively, based on previous purchases of expensive items. They presented a list of nine accessible (i.e., expensive in its category, such as a watch costing more than 400\$) and eight inaccessible (i.e., very expensive goods, such as a fur coat costing more than 2000\$) luxury goods to respondents and asked them which articles from these lists they have bought or received over the course of the last two (accessible items) or three (inaccessible items) years. A luxury consumer is then defined as a consumer who had purchased/received three accessible and two exceptional luxury goods. In addition to this scale, Dubois and Laurent (1995) developed a scale in which they not only included luxury possessions but also luxury practices. To measure the degree in which a consumer is immersed into luxury, respondents had to indicate which luxury items they possess and which luxury activities they've practiced in previous years, on the basis of a list with sixteen luxury possessions and practices. However, both scales only focused on price to distinguish luxury from non-luxury goods and they did not account for other characteristics, such as rarity, aesthetics or excellent quality. Luxury goods are more than just expensive goods, they also deliver symbolic and psychological benefits (e.g., social status) to consumers (Berry 1994; Kapferer and Bastien 2009; Mortelmans 2005). Moreover, both Dubois and Duquesne (1993) and Dubois and Laurent (1995) did not account for the fact that products or brands are not inherently luxurious but are perceived as more or less luxurious by an individual. In this respect, what constitutes a luxury product for one individual might be not for another individual. Accordingly, the subjective character may be more important in shaping subjective well-being than objective features.

To measure self-perceived luxury consumption, we constructed a new scale that measures consumers' tendency to choose for luxury brands (i.e., brands that are *perceived* as luxurious by an individual consumer) in various product categories. We did not present brand names because the same brand can be perceived as a luxury by one respondent but not by another. We selected five material product categories (e.g., clothes and cars) and five experiential product categories (e.g., wine/champagne and travel) that are classified as major luxury sectors (Chevalier and Mazzalovo 2008; Danziger 2005). On the basis of a reliability analysis, we decided to exclude two experiential product categories from the analysis. Respondents had to indicate how often they choose for luxury brands (i.e., brands that they perceive as luxurious) in each product category. Participants used a 1 (never) to 6 (always) response range for this scale (see "Appendix"). A factor analysis of these eight items generated two factors that accounted for 58.7% of the variance. The rotated component matrix confirmed the utility of the two subscales. The luxury consumption scale has high alpha scores (see Table 2).

#### 4 Results

To explore the relationships between materialism, luxury consumption, positive affect, negative affect and satisfaction with life, we first conduct correlational analyses (cf. 4.1 and 4.2). Next, we construct a structural model to estimate structural path coefficients between the constructs (cf. 4.3). Furthermore, we investigate whether the effect of luxury consumption on the various subjective well-being aspects is moderated by materialism (cf. 4.4). Finally, we conduct additional analyses to test the robustness of our findings (cf. 4.5). First, as income is positively correlated with luxury consumption, it might produce the pattern of results with the various subjective well-being components. To check for this

alternative explanation, we included income in the structural model. Second, we check for moderating effects of gender, age and income on our model by conducting multi-group analyses.

#### 4.1 Correlational Analyses

We first calculated zero-order manifest correlations between luxury consumption, materialism, positive affect, negative affect and life satisfaction. Our survey gives evidence for a negative relationship between materialism and subjective well-being (see Table 2). First, materialism and life satisfaction are negatively correlated indicating that high materialistic consumers are less satisfied with their lives than low materialistic consumers. Furthermore, materialism is positively related to negative affect, which indicates that high materialists experience negative feelings more often than low materialists, but it is not significantly related to positive affect. These findings support our hypothesis that overall materialism is associated with diminished subjective well-being as two aspects are adversely affected by materialism and no aspect benefits from it.

Next, our survey gives evidence for a positive relationship between luxury consumption and subjective well-being. The consumption of luxury goods is positively related to life satisfaction and frequency of positive affect. Luxury consumers experience more positive feelings and they are more satisfied with their life in general than consumers who do not readily buy luxuries. Somewhat unexpectedly, luxury consumption is not significantly related to negative affect. So, there is no evidence that luxury consumption alleviates the frequency of negative affect. Still, together, these results support our contention that luxury consumption enhances subjective well-being, at least in the short run. Finally, as expected, materialism and luxury consumption are positively related.

#### 4.2 Measurement Model

We conducted a Structural Equation Modeling (SEM) analysis to investigate the relations between the constructs materialism, luxury consumption, positive and negative affect and life satisfaction simultaneously. We fitted a confirmatory analytic model to evaluate the measurement of our latent constructs. We measured the constructs in our model with item parcels, which are aggregates of individual items, instead of individual items. Using item parcels reduces the chance of estimation errors (Coffman and MacCallum 2005; Sass and Smith 2006), stabilizes parameter estimates and improves model fit (Christopher et al. 2007; Matsunaga 2008). There are also psychometric benefits of using parcels because it enhances the communality across indicators and reduces random error. Furthermore, single items cannot capture the wholeness of a construct, while item parcels, which are aggregates of single items, can distil the common elements among those items that are underlying the latent factor (Matsunaga 2008). Finally, item parcels tend to approximate the distribution of the target construct better than individual items (Matsunaga 2008).

The luxury and materialism constructs are represented as second-order factors. The materialism construct consists of three latent constructs (i.e., success, centrality and happiness). Each of these lower-order factors is measured with two indicators which are summed to form homogeneous parcels. So each parcel is made up of two items that load on the same first-order factor (Coffman and MacCallum 2005). The luxury construct consists of two latent concepts (i.e., experiential luxury and material luxury). The first construct, experiential luxury, is measured with three indicators, while the second construct, material

luxury, is measured with five indicators. The indicators that load on the same lower-order factor are summed and form a homogenous parcel (Coffman and MacCallum 2005). A factor analysis revealed that the other three latent constructs (i.e., negative affect, positive affect, and life satisfaction) are unidimensional constructs. Matsunaga (2008) recommends the use of three item parcels to measure a unidimensional construct. We used a correlational algorithm to construct the three item parcels that measure each of the latter three latent concepts (Matsunaga 2008). Our measurement model fits the data:  $\chi^2_{(67)} = 841.58$ , NFI = .90, CFI = .91, RMSEA = .072 (90% confidence interval = [.068, .077]). All factor loadings are significant and substantial (see Table 3).

All latent correlations between the constructs are similar to the correlations between the sum-scales (see Table 4): Luxury consumption is positively related to materialism, positive affect and life satisfaction, but not significantly related to negative affect. Materialism is negatively related to satisfaction with life and positively to negative affect, but not significantly related to positive affect. In order to investigate these relationships in more detail, we will estimate the path coefficients between the constructs in a structural model.

#### 4.3 Structural Model

In the structural model we predict life satisfaction with materialism, luxury consumption, positive and negative affect (see Fig. 1). As hypothesized, we expect materialism to predict luxury consumption which, in turn, should affect satisfaction with life, positive affect and negative affect. Positive affect and negative affect are presumed to predict satisfaction with life. Finally, we expect materialism to affect both negative affect and satisfaction with life. The full model fit is identical to the measurement model fit because we fitted a saturated structural model for exploratory purposes.

#### 4.3.1 Impact of Materialism on Subjective Well-Being

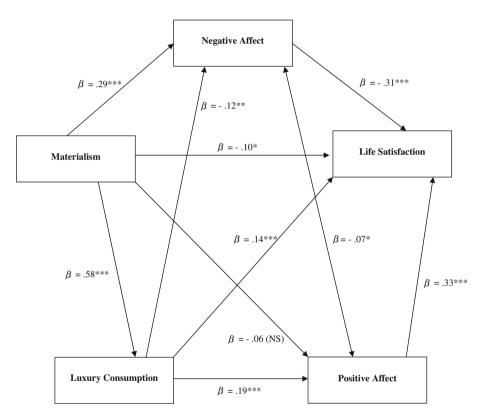
The standardized path coefficients (see Table 5) show that although materialism has no significant direct impact on *positive affect* ( $\beta = -.055$ , p = .203), it does have a direct

<b>Table 3</b> Measurement model(unstandardized estimates)	Path	Estimate	SE	p value
	Life1 ← LSF	.949	.033	.001
	Life2 ← LSF	.815	.029	.001
	Life3 ← LSF	1.000		
	Material consumption ← luxury	1.000		
	Experiential consumption $\leftarrow$ luxury	.693	.039	.001
	Success ← materialism	.754	.047	.001
	Centrality ← materialism	1.000		
	Happiness ← materialism	.524	.043	.001
	$Pos1 \leftarrow PA$	.748	.032	.001
	$Pos2 \leftarrow PA$	1.000		
	$Pos3 \leftarrow PA$	.910	.039	.001
	Neg1 ← NA	1.000		
	$Neg2 \leftarrow NA$	.734	.032	.001
LSF life satisfaction, PA positive affect, NA negative affect	Neg3 ← NA	.735	.032	.001

Table 4 Latent constations						
	1	2	3	4	5	
1. Luxury consumption	-					
2. Materialism	.580***	-				
3. Positive affect	.154***	.053†	-			
4. Negative affect	$.048^{\dagger}$	.221***	073*	_		
5. Life satisfaction	.116***	072*	.370***	.346***	-	

Table 4 Latent correlations

\*\*\* .001-level, \* .05-level, <sup>†</sup> .10-level



**Fig. 1** Structural equation model (standardized estimates). Structural model with materialism and luxury consumption predicting subjective well-being (standardized estimates). Model fit:  $\chi^2_{(67)} = 841.58$ , NFI = .90, CFI = .91, RMSEA = .072 (90% confidence interval = [.068, .077]) \*\*\*.001-level; \*\*.01-level; \*.05-level; <sup>†</sup>10-level

positive impact on *negative affect* ( $\beta = .291$ , p < .001) which, in turn, has a direct negative impact on life satisfaction ( $\beta = -.306$ , p < .001). Furthermore, materialism negatively impacts life satisfaction directly ( $\beta = -.103$ , p = .011).

In order to investigate the *indirect* effect of materialism on life satisfaction via negative effect, we conducted a mediation analysis. Simple mediation models might be tested by

stimates)	Path	Estimate	SE	p value
	Luxury ← Materialism	.600	.039	.001
	NA ← Materialism	.259	.042	.001
	PA ← Materialism	042	.033	.203
	LSF ← Materialism	124	.049	.011
	NA ← Luxury	104	.034	.002
	PA ← Luxury	.137	.029	.001
	$LSF \leftarrow Luxury$	.163	.042	.001
	$LSF \leftarrow PA$	.526	.045	.001
	$LSF \leftarrow NA$	412	.039	.001
	$\mathbf{P}\mathbf{A}\leftrightarrow\mathbf{N}\mathbf{A}$	034	.014	.015

**Table 5** Structural model(unstandardized estimates)

using the Sobel test (Baron and Kenny 1986) or the bootstrapping method in SEM (Shrout and Bolger 2002). The bootstrapping method constructs confidence intervals for the indirect effect by estimating this effect in various subsamples of the data set (Preacher and Hayes 2008). Bootstrapping (with n = 5000 bootstrap resamples) yielded the same results as the Sobel tests, therefore we only report the results of the Sobel test. The purpose of the Sobel Test is to determine if a potential mediating variable accounts for a significant portion of variability between an exogenous variable and an outcome variable. Results of the Sobel test reveal that the indirect effect of materialism on life satisfaction via negative affect is significantly different from zero (a \* b = -.107, p < .001; see Table 6). Together, these results indicate that materialism has a negative impact on subjective well-being due to a higher frequency of negative affect and a lower satisfaction with life score. These results confirm hypotheses 1a, 1b, 1c and 1d.

#### 4.3.2 Impact of Luxury Consumption on Subjective Well-Being

The structural model provides evidence for a positive relationship between luxury consumption and subjective well-being. The standardized path coefficients show that luxury consumption has a direct positive impact on *life satisfaction* ( $\beta = .140$ , p < .001) and on *positive affect* ( $\beta = .187$ , p < .001; see Table 5). Positive affect, in turn, has a positive impact on life satisfaction ( $\beta = .332$ , p < .001). Furthermore, although we did not observe a significant correlation between luxury consumption and *negative affect*, the path coefficient suggest a significant direct negative impact of luxury consumption on negative

Path	Estimate	SE	Sobel z	p value
(1) Materialism $\rightarrow$ NA $\rightarrow$ LSF	107	.020	-5.33	.001
(2) Luxury $\rightarrow$ PA $\rightarrow$ LSF	.072	.016	4.38	.001
(3) Luxury $\rightarrow$ NA $\rightarrow$ LSF	.043	.015	2.94	.003
(4) Materialism $\rightarrow$ Luxury $\rightarrow$ PA	.082	.018	4.52	.001
(5) Materialism $\rightarrow$ Luxury $\rightarrow$ NA	062	.021	-3.00	.003
(6) Materialism $\rightarrow$ Luxury $\rightarrow$ LSF	.098	.026	3.76	.001
(7) Materialism $\rightarrow$ Luxury $\rightarrow$ PA $\rightarrow$ LSF	.043	.010	4.19	.001
(8) Materialism $\rightarrow$ Luxury $\rightarrow$ NA $\rightarrow$ LSF	.026	.009	2.87	.004

Table	6	Mediation	tests

affect ( $\beta = -.120$ , p = .002). This suggests that luxury consumption may reduce the frequency of negative affect when controlling for the impact of materialism on both variables. This implies that there are two different kinds of relationships between luxury consumption and negative affect: a spurious positive effect and a direct negative effect. The conflicting results between the correlations and the structural model suggest that the negative impact on negative affect is attenuated by the spurious positive effect when taking the effects of materialism on both luxury consumption and negative affect into account.

In order to investigate the indirect effects of luxury consumption on *life satisfaction* via positive and negative affect, we conducted a multiple mediator mediation analysis (Hayes et al. 2010; MacKinnon 2000; Preacher and Hayes 2008; see Table 6). To test the specific indirect effects, we used the product-of-coefficients approach (Preacher and Hayes 2008). An analysis of these effects shows that luxury consumption has a positive impact on life satisfaction via positive affect (a \* b = .072, p < .001) and via negative affect (a \* b = .043, p = .003). Together, these results indicate that luxury consumption benefits subjective well-being and confirm hypotheses 3a, 3b and 3c.

## 4.3.3 The Mediating Effect of Luxury Consumption on the Relationship Between Materialism and Subjective Well-Being

Our model shows that materialism has a strong positive impact on luxury consumption  $(\beta = .580, p < .001, H2)$  and that luxury consumption benefits subjective well-being. These results suggest that materialism might have a positive impact on subjective wellbeing via luxury consumption, apart from its detrimental impact on negative affect and satisfaction with life. This positive effect may constitute the silver lining of materialism. In order to investigate the indirect impact of materialism on satisfaction with life via luxury consumption, we conducted a mediation analysis (see Table 6). An analysis of the specific indirect effects shows that materialism benefits subjective well-being via an indirect positive impact on satisfaction with life (a \* b = .098, p < .001) and positive affect (a \* b = .082, p < .001) and an indirect negative impact on negative affect (a \* b = .082, p < .001)-.062, p = .003). Finally, we conducted a multi-step mediation analysis to investigate the impact of luxury consumption, positive affect and negative affect as mediators for the relationship between materialism and *life satisfaction* (Hayes et al. 2010; see Table 6). Results show that materialism has a positive impact on life satisfaction via luxury consumption and positive affect (a \* b \* c = .043, p < .001), and a positive impact on life satisfaction via luxury consumption and negative affect (a \* b \* c = .026, p = .004).

## 4.4 Moderating Effect of Materialism on the Relationship Between Luxury Consumption and Subjective Well-Being

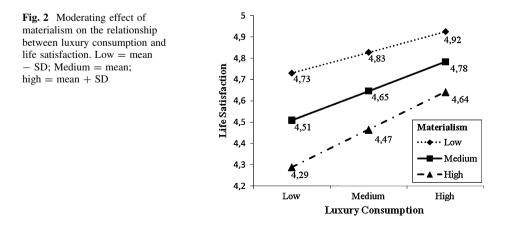
The above-mentioned results show that luxury consumption affects both our cognitive and affective well-being and it might diminish the negative effects of materialism on subjective well-being. However, it remains unclear *why* luxury consumption makes materialists feel happier. In order to investigate why luxury consumption might increase the happiness of materialists, we compared the moderating effect of materialism on the relationship between luxury consumption and both cognitive and affective well-being. A structural path analysis reveals that the interaction effect between materialism and luxury consumption is significant for satisfaction with life ( $\beta = .043$ , p = .027), but not for positive ( $\beta = .025$ , p = .232) or negative ( $\beta = -.015$ , p = .465) affect. This implies that the more high materialistic consumer consume luxury goods the more satisfied they are with their lives,

while there is no significant difference between high and low materialistic consumers regarding the impact on positive and negative affect. Although high materialistic consumers are less satisfied with their life as a whole compared to low materialistic consumers and both groups benefit from the consumption of luxury goods (i.e., high materialists: t(2200) = 6.43, p < .001; low materialists: t(2200) = 3.46, p < .001), high materialistic consumers benefit more from luxury consumption than low materialistic consumers (see Fig. 2). In particular, for satisfaction with life, the mean difference (MD = -.44, p < .001) between high and low materialistic consumers for *low* luxury consumption is bigger than the mean difference between high and low materialistic consumers for *high* luxury consumption (MD = -.28, p < .001). These results confirm hypothesis 4.

#### 4.5 Testing the Robustness of the Model

First, as income might be positively correlated with luxury consumption and with the various dimensions of subjective well-being, this may imply that the relations between luxury consumption and subjective well-being documented above are spurious. To test this alternative explanation, we included income in the structural model. Income positively influences luxury consumption ( $\beta = .259, p < .001$ ), positive affect ( $\beta = .111, p < .001$ ) and life satisfaction ( $\beta = .097$ , p < .001), while it negatively impacts negative affect  $(\beta = -.060, p = .042)$ . The path coefficients of the relationships between luxury consumption and positive affect ( $\beta = .164, p < .001$ ), negative affect ( $\beta = -.107; p = .018$ ) and life satisfaction ( $\beta = .120, p = .003$ ) remain significant when income is included in the model. Moreover, including income in the structural path model to check if it impacts the moderating effect of materialism on the relationship between luxury consumption and subjective well-being, does not impact path coefficients. As such, the interaction effect between luxury consumption and materialism on life satisfaction remains significant  $(\beta = .043, p = .025)$  and the interaction effects between luxury consumption and materialism on positive ( $\beta = .025$ , p = .232) and negative ( $\beta = -.015$ , p = .467) affect remain insignificant. Hence, all the conclusions from the analyses reported above (i.e., without including income) remain valid; income did not lead to spurious relations between subjective well-being and luxury consumption.

Second, although income produces no spurious relation between luxury consumption and subjective well-being, the effect of luxury consumption on subjective well-being might depend on income. To investigate whether *income* moderates the relationships between



materialism, luxury consumption and the subjective well-being dimensions, we conducted a multi-group analysis comparing low income individuals (i.e., monthly net family income < 3500) with high income individuals (i.e., monthly net family income > 3500). Results show that the structural weights of the low income group differ significantly from the structural weights of the high income group (CMIN(32) = 221.71, p < .001). However, a detailed analysis of the structural paths shows that the two groups only differ significantly from each other with respect to the path between positive affect and life satisfaction. Although the relationship between positive affect and satisfaction with life is significant for both income groups, it is somewhat stronger for the high income group ( $\beta = .389$ , p < .001) than for the low income group ( $\beta = .300$ , p < .001). Further analyses documented that materialism moderates the relationship between luxury consumption and subjective well-being not significantly different in the low and high income groups (CMIN(11) = 18.14, p = .078). In conclusion, income only moderates the relationship between positive affect and satisfaction with life.

We conducted a second multi-group analysis to examine whether *age* moderates the relationships between materialism, luxury consumption and the subjective well-being dimensions. Results show that the structural weights of the young group (i.e., < 40 years) differ significantly from the structural weights of the older group (i.e., > 40 years; CMIN(32) = 707.20, p < .001). A detailed analysis of the structural paths shows that two paths differ significantly. First, the structural path between materialism and luxury consumption differs between the two age groups (CMIN(1) = 5.08, p = .024). Specifically, the impact of materialism on luxury consumption is somewhat stronger for the older age group ( $\beta = .633, p < .001$ ) compared to the younger age group ( $\beta = .588, p < .001$ ), but both relations are significant. Second, the structural path between materialism and positive affect also differs between the two age groups (CMIN(1) = 3.88, p = .049). While materialism has a negative impact on positive affect for young respondents ( $\beta = -.136$ , p = .033), it has no significant impact on positive affect for older respondents ( $\beta = .030$ , p = .625). Subsequent analysis indicated that materialism moderates the relationship between luxury consumption and subjective well-being similarly for the two age groups (CMIN(11) = 17.39, p = .097). In conclusion, age only moderates the relationships between materialism and luxury consumption and between materialism and positive affect. Materialism does not appear to influence positive affect for older respondents.

Finally, we conducted a third multi-group analysis to test whether *gender* moderates the relationships between materialism, luxury consumption and the subjective well-being dimensions. Results show that the structural weights of the male group differ significantly from the structural weights of the female group (*CMIN*(32) = 273.69, p < .001). Follow-up analysis indicated that only the path between materialism and negative affect differs marginally significantly between the two groups (*CMIN*(1) = 3.62, p = .057). The relationship between materialism and negative affect is somewhat stronger for women ( $\beta = .352, p < .001$ ) compared to men ( $\beta = .215, p = .002$ ). The *p* values associated with a test of equality for each of the other paths are larger than .300. We also found that materialism similarly moderates the relationship between luxury consumption and subjective well-being for men and women (*CMIN*(11) = 9.33, p = .59). In conclusion, gender only moderates the relationship between materialism and negative affect.

In sum, various analyses were conducted to test the robustness of our results. While these analyses indicated that some paths were indeed moderated by income, age or gender, none of the effects of luxury consumption on the different subjective well-being dimensions differed for different income, age and gender groups. In addition, for the paths that differ, usually the path was still significant in both groups compared. The lone exception was the path between materialism and positive affect which was significant for younger respondents but not for older ones. In all, then, our substantial conclusions do not vary as a function of income, gender or age.

#### 5 Discussion

Happiness is an important life goal for many people and has several positive consequences (Lyubomirsky et al. 2005). For instance, happy people are more successful than unhappy people, have more intimate relationships, and behave more altruistically. Therefore, it is important to search for activities that might enhance happiness (Sheldon and Lyubomirsky 2006; Vargas and Yoon 2006). Various studies investigated the impact of consumption on happiness (see e.g., Richins et al. 1992; Van Boven 2005; Zhong and Mitchell 2010) because the relation between consumption and well-being is not entirely clear. Some theories indicate that consumption might enhance consumers' subjective well-being, such as demand theory which states that consumers maximize their satisfaction through economic activities (Nixon 2007; Oropesa 1995). However, other theories point at the detrimental effects of consumption (Ryan and Deci 2000). In this respect, self-determination theory states that a focus on extrinsic goals, such as social recognition and material values, is often linked with low levels of subjective well-being (Kasser 2002). The current paper contributes to this research by examining the effects of luxury consumption on well-being and how this affects the well-being of materialistic versus less materialistic consumers.

The results of a large survey in the Dutch-speaking region of Belgium show that luxury consumption may entail some positive consequences for the consumer, at least in the short run. First, luxury consumption increases the frequency of positive affect and reduces the frequency of negative affect. This beneficial effect of luxury consumption on affective well-being is similar for high and low materialistic consumers. This is consistent with the idea that the hedonic consequences of luxury consumption are so basic that their effect does not depend on any cognitive appraisal. In contrast, the effect of luxury consumption on satisfaction with life is more pronounced for high materialistic consumers compared to low materialistic consumers. This supports the idea that the effect of luxury on satisfaction with life depends on some cognitive appraisal of one's level of consumption. In this regard, high materialistic consumers may value the symbolic consequences of luxury consumption more than low materialistic consumers and the satisfaction of life of the former may depend more on their level of luxury consumption than that of the latter.

To be sure, we do not claim that luxury consumption makes people happy in the long run. In fact, even in our survey, the positive impact of luxury consumption on mood over the past 30 days does not imply that a single luxury purchase was sufficient to lift mood for 30 days. It seems more likely that frequent luxury purchases resulted in frequent, short-lived effects on mood, as a consequence of which, on average, mood over the past 30 days was positively affected by luxury consumption. As individuals appear to have a strong desire for immediate gratifications, they highly value these short-lived rewards (O'Donoghue and Rabin 2000). Hyperbolic discounting theory suggests that individuals prefer smaller short-term gratifications, even when it goes at the expense of achieving long-run goals (Dittmar and Bond 2010; Laibson 1998; Thaler 1981). As such, an individual prefers to eat a candy bar now, while planning to eat healthy food next week. However, when the week has passed a 'preference reversal' occurs and the individual again prefers the candy bar to the more healthy option risking his/her own health (e.g., obesity) in the long run. As such, dependable

short-term gratifications are extremely motivating and they often derail our ability to reap larger long-term rewards (Winkler 2006).

As such, luxury consumption may reinforce materialistic lifestyles. First, high materialistic consumers are more inclined to consume luxury goods than low materialistic consumers (Fournier and Richins 1991; Watson 2003) and may therefore more readily reap the rewards of luxury consumption. Second, while the impact of luxury consumption on affective well-being does not depend on materialism, the impact on cognitive well-being does. As such, even when engaging in the same amount of luxury consumption, high materialistic consumers may benefit somewhat more from it than low materialistic consumers. As a result, luxury consumption may be more rewarding for the former than for the latter. Both the differences in luxury consumption and the differences in rewards associated with it may entail that luxury consumption may reinforce their materialistic lifestyle.

It is important to note that we do not claim that materialists are happier than less materialistic consumers. First, both the correlational analyses and the structural equation modeling results provide evidence for a detrimental impact of materialism on negative affect, which is in line with previous research (Christopher and Schlenker 2004; Christopher et al. 2009). High materialistic consumers experience negative emotions more frequently than low materialistic consumers. Second, consistent with previous research, we found that materialism is negatively correlated with life satisfaction (Belk 1984, 1985; Burroughs and Rindfleisch 2002; Christopher et al. 2007; Ryan and Dziurawiec 2001; Wright and Larsen 1993). Third, also in line with previous research (Christopher et al. 2009) there is no indication that materialists experience positive emotions more frequently than less materialistic consumers. Although there is no evidence for a direct relationship between materialism and positive affect, our results provide evidence for a mediated effect of materialism on positive affect via luxury consumption. In future research, it would be interesting to explore this relationship in more detail and to investigate if other aspects of a materialistic lifestyle mediate the relationship between materialism and positive affect. In sum, there appears to be no specific well-being aspect that directly benefits from a material lifestyle.

It appears somewhat paradoxical that materialists are less happy than non-materialistic consumers although they seem to derive several benefits from their luxury consumption. However, materialism may be associated with various negative consequences that more than off-set the positive consequences of their luxury consumption. In addition, activities outside the realm of consumption may be more rewarding—these rewards may then be more available to non-materialists than to materialists. Still, because luxury consumption feels good and is positively appraised, materialists may not initiate the pursuit of these more rewarding activities and, as a result, fail to learn how rewarding these can be. So, the rewards materialists derive from their luxury consumption may impede the learning of more rewarding activities. The temporary satisfaction of material wants may further increase the probability that such wants re-emerge after a short while (Norris and Larsen 2010; Vohs and Baumeister 2007). These processes may "lock in" materialists in their lifestyle, irrespective of the long-term adverse consequences for self and society.

The current paper not only contributes to the literature on luxury consumption but also to the more general literature of subjective well-being. Most studies on the relationship between materialism and happiness typically focus on just one aspect of subjective wellbeing, namely satisfaction with life (e.g., Ryan and Dziurawiec 2001), positive and negative affect (e.g., Christopher et al. 2009) or general subjective well-being (e.g., Budiman and O'Cass 2007) but ignore how these different aspects interrelate. The SEM analysis allows gaining insight in the relations between the various well-being aspects. In particular, we find that both positive and negative affect are strong, opposing predictors for life satisfaction. When people experienced more positive feelings during the past month, they reported higher satisfaction with life compared to people who experienced positive feelings less frequently. Furthermore, when people experienced more negative feelings during the past month, they reported lower satisfaction with life, compared to people who experienced negative feelings less frequently. This implies that, although satisfaction with life is a cognitive component of subjective well-being, it may also contain an affective aspect. As such, affective well-being may give individuals information about the general quality of their life (Kuppens et al. 2008).

The current paper yields several insights but at the same time raises several issues. For instance, the luxury consumption measure employed in the current study measures perceived luxury consumption rather than actual behavior. In particular, we merely measure the *perceived* frequency of luxury consumption. As we do not know how our respondents answered this frequency of luxury consumption question, future research should investigate what causes the differences in reported frequency of luxury consumption: do these differences reflect actual differences in what people purchase or, rather, differences in perceptions of what constitutes a luxury product? However, to our opinion, it might be very difficult to construct an objective measure of luxury consumption for all individuals because the meaning of luxuries varies according to the individual. While some brands are perceived as luxury brands by one individual, they might not be by someone else. Furthermore, for both status and hedonic aspects of luxury consumption perception might be more important than reality. In this respect, thinking that one's consumption reflects one's status may be more important than knowing if it actually does. Still, future research may distinguish the objective from the subjective aspects to see if they differentially affect subjective well-being.

Future research should also examine the idea that luxury consumption may reinforce materialists in their lifestyle more in depth. This may require investigating the effects of luxury consumption in a host of complementary fashions. First, the current study only investigated the stationary effects of luxury consumption but a more dynamic approach that focuses on how luxury consumption and materialism change over time would definitely yield interesting data. Moreover, it would be interesting to relate luxury consumption to a more general theory of extrinsic goal pursuit and to account for consumer aspirations using the Aspiration Index. Second, the current findings are all correlational. Experimental studies are required to further substantiate the presupposed causal effects in our structural equations. Although the data supports our line of reasoning, alternative explanations may account for the positive relationship between luxury consumption and subjective wellbeing. For instance, since our luxury consumption measure is subjective, one could argue that the obtained relations might be due to the fact that individuals who are more inclined to see their consumption as luxurious may be more appreciative of what they have and, therefore happier. However, the strong positive correlation between materialism and luxury consumption makes this alternative explanation rather unlikely as materialism is typically negatively related to gratitude (Kashdan and Breen 2007).

Third, individual differences may moderate our findings. For instance, individuals with a high capability to savor—the cognitive ability to enhance and prolong positive emotional experiences (Bryant 2003)—may be happier than individuals who have a rather low capability to savor. Also people differ in reward sensitivity (REF): While some individuals are strongly motivated by the prospect of rewards, others are less propelled by it. Reward sensitivity may be related to frequency, and possibly the effects, of luxury consumption. Future research might benefit from including such individual difference variables to further

develop our understanding of the effect of luxury consumption on subjective well-being. Future research may also investigate boundary conditions of the beneficial effect of luxury consumption. For instance, life satisfaction may decrease when the purchase of luxury goods does not offer the expected pleasure (cf. Nicolao et al. 2009) or fails to give a higher status to the owner of the good (cf. Wang and Wallendorf 2006).

Finally, the survey is conducted in Belgium, a Western European country. Future research should extend the present research in other countries and continents, such as Asia. Previous research showed cultural differences in the motives for luxury consumption (Wong and Ahuvia 1998), in the level of materialism (Eastman et al. 1997; Ger and Belk 1996; Schaefer et al. 2004), and in the conception of subjective well-being (Lu and Gilmour 2004). For now, however, we can conclude that although materialism is associated with a host of problems and negative outcomes, at least the tendency to engage in luxury consumption might, in the short term, have some positive consequences, which might reinforce a materialistic goal pursuit.

#### Appendix: Scale to Measure Self-Perceived Luxury Consumption

	never	rarely	now and then	frequently	very often	always
Clothing	1	2	3	4	5	6
Food	1	2	3	4	5	6
Cars	1	2	3	4	5	6
Watches	1	2	3	4	5	6
Wine and Champagne	1	2	3	4	5	6
Accessories	1	2	3	4	5	6
Home decoration	1	2	3	4	5	6
Cosmetics*	1	2	3	4	5	6
Travel	1	2	3	4	5	6
Perfume*	1	2	3	4	5	6

\*These items are deleted from the scale due to low reliability scores

#### References

- Ahuvia, A. C. (2001). Well-being in cultures of choice: A cross-cultural perspective. American Psychologist, 54(1), 77–79.
- Ahuvia, A. C. (2002). Individualism/collectivism and cultures of happiness: A theoretical conjecture on the relationship between consumption and subjective well-being at the national level. *Journal of Happiness Studies*, 3(1), 23–26.
- Ahuvia, A. C. (2008). If money doesn't make us happy, why do we act as if it does? Journal of Economic Psychology, 29(4), 491–507.
- Ahuvia, A. C., & Wong, N. Y. (2002). Personality and values based materialism: Their relationship and origins. *Journal of Consumer Psychology*, 12(4), 389–402.
- Allred, A., Valentin, E. K., & Chakraborty, G. (2010). Pricing risky services: Preference and quality considerations. *Journal of Product and Brand Management*, 19(1), 54–60.
- Andrews, F. M., & Withey, S. B. (1976). Social indicators of well-being: America 's perception of life quality. New York: Plenum.

- Angeles, L. (2010). A closer look at the Easterlin paradox. Journal of Socio-Economics. doi: 10.1016/j.socec.2010.06.017.
- Arndt, J., Solomon, S., Kasser, T., & Sheldon, K. M. (2004). The urge to splurge: A terror management account of materialism and consumer behavior. *Journal of Consumer Psychology*, 14(3), 198–212.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Bearden, W. O., Netemeyer, R. G., & Teel, J. E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research*, 15(4), 473–481.
- Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. Advances in Consumer Research, 11(1), 291–297.
- Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. Journal of Consumer Research, 12(4), 265–280.
- Belk, R. W. (1988). Possessions and the extended self. Journal of Consumer Research, 15(3), 139-168.
- Berry, C. I. (1994). The idea of luxury: A conceptual and historical investigation. Cambridge: Cambridge University Press.
- Bettingen, J., & Luedicke, M. K. (2009). Can brands make us happy? A research framework for the study of brands and their effects on happiness. *Advances in Consumer Research*, 36, 308–315.
- Biswas-Diener, R., Diener, E., & Tamir, M. (2004). The psychology of subjective well-being. *Daedalus*, 133, 18–25.
- Boes, S., & Winkelmann, R. (2010). The effect of income on general life satisfaction and dissatisfaction. Social Indicators Research, 95(1), 111–128.
- Bryant, F. B. (2003). Savoring beliefs inventory (SBI): A scale for measuring beliefs about savoring. Journal of Mental Health, 12(2), 175–196.
- Budiman, A., & O'Cass, A. G. (2007). Studying the effects of materialism, religiosity and status consumption on subjective well-being: An Indonesian perspective. ANZMAC 2007 conference. Australian and New Zealand Marketing Academy. Conference proceedings and refereed papers, Dunedin, New Zealand.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. Journal of Consumer Research, 29(3), 348–370.
- Busseri, M. A., Sadava, S., Molnar, D., & DeCourville, N. (2009). A person-centered approach to subjective well-being. *Journal of Happiness Studies*, 10(2), 161–181.
- Caniato, F., Caridi, M., Castelli, C. M., & Golini, R. (2009). A contingency approach for SC strategy in the Italian luxury industry: Do consolidated models fit? *International Journal of Production Economics*, 120(1), 176–189.
- Caporale, G. M., Georgellis, Y., Tsitsianis, N., & Yin, Y. P. (2009). Income and happiness across Europe: Do reference values matter? *Journal of Economic Psychology*, 30(1), 42–51.
- Catry, B. (2003). The great pretenders: The magic of luxury goods. Business Strategy Review, 14(3), 10-17.
- Chaplin, L. N., & Roedder John, D. (2007). Growing up in a material world: Age differences in materialism in children and adolescents. *Journal of Consumer Research*, 34(4), 480–493.
- Chevalier, M., & Mazzalovo, G. (2008). Luxury brand management: A world of privilege. Singapore: Wiley. Christopher, A. N., Kuo, V., Abraham, K. M., Noel, L. W., & Linz, H. E. (2004). Materialism and affective
- well-being: The role of social support. *Personality and Individual Differences*, 37(3), 463–470.
- Christopher, A. N., Lasane, T. P., Troisi, J. D., & Park, L. E. (2007). Materialism, defensive and assertive self-presentational styles, and life satisfaction. *Journal of Social and Clinical Psychology*, 26(10), 1146–1163.
- Christopher, A. N., Saliba, L., & Deadmarsh, E. J. (2009). Materialism and well-being: The mediating effect of locus of control. *Personality and Individual Differences*, 46(7), 682–686.
- Christopher, A. N., & Schlenker, B. R. (2004). Materialism and affect: The role of self-presentational concerns. *Journal of Social and Clinical Psychology*, 23(2), 260–272.
- Clark, R. A., Zboja, J. J., & Goldsmith, R. E. (2007). Status consumption and role-relaxed consumption: A tale of two retail consumers. *Journal of Retailing and Consumer Services*, 14(1), 45–59.
- Coffman, D. L., & MacCallum, R. C. (2005). Using parcels to convert path analysis models into latent variable models. *Multivariate Behavioral Research*, 40(2), 235–259.
- Crawford, J. R., & Henry, J. D. (2004). The positive and negative affect schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43(3), 245–265.
- Csikszentmihaliyi, M. (1997). Finding flow: The psychology of engagement with everyday life. New York: Basic Books.

- Csikszentmihaliyi, M., & Rochberg-Halton, E. (1981). The meaning of things. Domestic symbols and the self. Cambridge: Cambridge University Press.
- Cummins, R. A. (2000). Personal income and subjective well-being: A review. Journal of Happiness Studies, 1(2), 133–158.
- Danziger, P. (2005). Let them eat cake: Marketing luxury to the masses—as well as the classes. Chicago: Dearborn Trade Publishing.
- Deckop, J. R., Jurckiewicz, C. L., & Giacalone, R. A. (2010). Effects of materialism on work-related personal well-being. *Human Relations*, 63(7), 1007–1030.
- DeLeire, T., & Kalil, A. (2010). Does consumption buy happiness? Evidence from the United States. International Review of Economics, 57(2), 163–176.
- DiClemente, D. F., & Hantula, D. A. (2003). Applied behavioral economics and consumer choice. *Journal of Economic Psychology*, 24(5), 589–602.
- Diener, E. (1984). Subjective well-being. Psychological Bulletin, 95(3), 542-575.
- Diener, E. (2000). Subjective well-being. The science of happiness and a proposal for a national index. American Psychologist, 55(1), 34–43.
- Diener, E., Emmons, R. A., Larson, R. J., & Griffin, S. (1985). The satisfaction with life scale. Journal of Personality Assessment, 49(1), 71–75.
- Diener, E., Kahneman, D., Tov, W., & Arora, R. (2009). Income's differential influence on judgments of life versus affective wellbeing. In E. Diener (Ed.), Assessing Wellbeing. London, UK: Springer.
- Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluations, while psychosocial prosperity predicts positive feeling. *Journal of Personality and Social Psychology*, 99(1), 52–61.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(3), 276–302.
- Dittmar, H. (1994). Material possessions as stereotypes: Material images of different socio-economic groups. Journal of Economic Psychology, 15(4), 561–585.
- Dittmar, H. (2005). Compulsive buying–a growing concern? An examination of gender, age and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96(4), 467–491.
- Dittmar, H. (2008). Consumer culture, identity and well-being. The search for the 'good life' and the 'body perfect'. New York: Psychology Press.
- Dittmar, H., & Bond, R. (2010). I want it and I want it now: Using a temporal discounting paradigm to examine predictions of consumer impulsivity. *British Journal of Psychology*, 101(4), 751–776.
- Dittmar, H., Long, K., & Bond, R. (2007). When a better self is only a button click away: Associations between materialistic values, emotional and identity-related buying motives, and compulsive buying tendency online. *Journal of Social and Clinical Psychology*, 26, 334–361.
- Dubois, B., & Duquesne, P. (1993). The market for luxury goods: Income versus culture. European Journal of Marketing, 27(1), 35–44.
- Dubois, B., & Laurent, G. (1995). Luxury possessions and practices: An empirical scale. European Advances in Consumer Research, 2, 69–77.
- Dubois, B., & Laurent, G. (1996). The functions of luxury: A situational approach to excursionism. Advances in Consumer Research, 23, 470–477.
- Dubois, B., Laurent, G., & Czellar, S. (2005). Consumer segments based on attitudes toward luxury: Empirical evidence from twenty countries. *Marketing Letters*, 16(2), 115–128.
- Dutt, A. K. (2008). The dependence effect, consumption and happiness: Galbraith revisited. Review of Political Economy, 20(4), 527–551.
- Dynan, K. E., & Ravina, E. (2007). Increasing income inequality, external habits, and self-reported happiness. American Economic Review, 97(2), 226–232.
- Eastman, J. K., Fredenberger, B., Campbell, D., & Calvert, S. (1997). The relationship between status consumption and materialism: A cross-cultural comparison of Chinese, Mexican, and American students. *Journal of Marketing Theory and Practice*, 5(1), 52–65.
- Eastman, J. K., Goldsmith, R. E., & Flynn, L. R. (1999). Status consumption in consumer behavior: Scale development and validation. *Journal of Marketing Theory and Practice*, 7(3), 41–53.
- Fitzmaurice, J., & Comegys, C. (2006). Materialism and social consumption. Journal of Marketing Theory and Practice, 14(4), 287–299.
- Flouri, E. (2004). Exploring the relationship between mothers' and fathers' parenting practices and children's materialist values. *Journal of Economic Psychology*, 25(6), 743–752.
- Fournier, S., & Richins, M. L. (1991). Some theoretical and popular notions concerning materialism. Journal of Social Behavior and Personality, 6(6), 403–414.
- Foxall, G. R., & Yani-de-Soriano, M. M. (2005). Situational influences on consumers' attitudes and behavior. *Journal of Business Research*, 58(4), 518–525.

- Frank, R. H. (1999). Luxury fever. Money and happiness in an era of excess. Princeton: Princeton University Press.
- Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. A. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies*, 12(2), 289–302.
- Galbraith, J. K. (1958). The affluent society. New York: Mariner Books.
- Ger, G., & Belk, R. W. (1996). Cross-cultural differences in materialism. Journal of Economic Psychology, 17(1), 55–77.
- González Gutiérrez, J. L., Jiménez, B. M., Hernández, E. G., & Puente, C. P. (2005). Personality and subjective well-being: Big five correlates and demographic variables. *Personality and Individual Differences*, 38(7), 1561–1569.
- Guillen-Royo, M. (2008). Consumption and subjective well-being: Exploring basic needs, social comparison, social integration and hedonism in Peru. Social Indicators Research, 89(3), 535–555.
- Hagerty, M. R., & Veenhoven, R. (2003). Wealth and happiness revisited. Growing national income does go with greater happiness. Social Indicators Research, 64(1), 1–28.
- Hayes, A. F., Preacher, K. J., & Myers, T. A. (2010). Mediation and the estimation of indirect effects in political communication research. In E. P. Bucy & R. L. Holbert (Eds.), Sourcebook for political communication research: Methods, measures, and analytical techniques. New York: Routledge.
- Headey, B., Muffels, R., & Wooden, M. (2008). Money does not buy happiness: Or does it? A reassessment based on the combined effects of wealth, income and consumption. *Social Indicators Research*, 87(1), 65–82.
- Heaney, J., Goldsmith, R. E., & Wan Jusoh, W. J. (2005). Status consumption among Malaysian consumers. Exploring its relationship with materialism and attention-to-social-comparison-information. *Journal of International Consumer Marketing*, 17(4), 83–98.
- Holt, D. B. (1995). How consumers consume: A typology of consumer practices. Journal of Consumer Research, 22(1), 1–16.
- Howel, R. T., & Howel, C. J. (2008). The relation of economic status to subjective well-being in developing countries: A meta-analysis. *Psychological Bulletin*, 134(4), 536–560.
- Jackson, T. (2008). Where is the "wellbeing dividend"? Nature, structure and consumption inequalities. Local Environment, 13(8), 703–723.
- Jain, S. P., & Posavac, S. S. (2001). Prepurchase attribute verifiability, source credibility, and persuasion. Journal of Consumer Psychology, 11(3), 169–180.
- Kahneman, D., Diener, E., & Schwartz, N. (1999). Well-being: The foundations of hedonic psychology. New York: Russell Sage Foundation.
- Kapferer, J., & Bastien, V. (2009). The luxury strategy. London: Kogan Page Ltd.
- Karabati, S., & Cemalcilar, Z. (2010). Values, materialism, and well-being: A study with Turkish university students. *Journal of Economic Psychology*, 31(4), 624–633.
- Kashdan, T. B., & Breen, W. E. (2007). Materialism and diminished well-being: Experiential avoidance as a mediating mechanism. *Journal of Social and Clinical Psychology*, 26, 521–539.
- Kasser, T. (2002). The high price of materialism. Cambrige: MIT.
- Kasser, T., & Ahuvia, A. C. (2002). Materialistic values and well-being in business students. *European Journal of Social Psychology*, 32(1), 137–146.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65(2), 410–422.
- Kasser, T., & Sheldon, K. M. (2000). Of wealth and death: Materialism, mortality salience, and consumption behavior. *Psychological Science*, 11(4), 348–351.
- Kemp, S. (1998). Perceiving luxury and necessity. Journal of Economic Psychology, 19(5), 591-606.
- Keng, K. A., Jung, K., Jiuan, T. S., & Wirtz, J. (2000). The influence of materialistic inclination on values, life satisfaction and aspirations: An empirical analysis. *Social Indicators Research*, 49(3), 317–333.
- Kuppens, P., Realo, A., & Diener, E. (2008). The role of positive and negative emotions in life satisfaction judgment across nations. *Journal of Personality and Social Psychology*, 95(1), 66–75.
- LaBarbera, P. A., & Gürhan, Z. (1997). The role of materialism, religiosity, and demographics in subjective well-being. *Psychology and Marketing*, 14(1), 71–97.
- Laibson, D. (1998). Life-cycle consumption and hyperbolic discount functions evidence and an interpretation. *European Economic Review*, 42(3/5), 861–871.
- Lambert, N. M., Fincham, F. D., Stillman, T. F., & Dean, L. R. (2009). More gratitude, less materialism: The mediating role of life satisfaction. *Journal of Positive Psychology*, 4(1), 32–42.
- Layard, R. (2005). Happiness: Lessons from a new science. London, UK: Penguin Books.
- Linssen, R., Van Kempen, L., & Kraaykamp, G. (2011). Subjective well-being in rural India: The curse of conspicuous consumption. *Social Indicators Research*, 101(1), 57–72.

- Lu, L., & Gilmour, R. (2004). Culture and conceptions of happiness: Individual oriented and social oriented SWB. Journal of Happiness Studies, 5(3), 269–291.
- Lynn, M., & Harris, J. (1997). The desire for unique consumer products: A new individual differences scale. Psychology & Marketing, 14(6), 601–616.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, 73(6), 1141–1157.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9(2), 111–131.
- MacKinnon, D. P. (2000). Contrasts in multiple mediator models. In J. Rose, L. Chassin, C. C. Presson, & S. J. Sherman (Eds.), *Multivariate applications in substance use research* (pp. 141–160). Mahwah, NJ: Erlbaum.
- Mandel, N., Petrova, P. K., & Cialdini, R. B. (2006). Images of success and the preference for luxury brands. *Journal of Consumer Psychology*, 16(1), 57–69.
- Mason, R. (1981). Conspicuous consumption. A study of exceptional consumer behaviour. Great Britain: William Heinemann.
- Matsunaga, M. (2008). Item parceling in structural equation modeling: A primer. Communication Methods and Measures, 2(4), 260–293.
- Mentzakis, E., & Moro, M. (2009). The poor, the rich and the happy: Exploring the link between income and subjective well-being. *Journal of Socio-Economics*, 38(1), 147–159.
- Miesen, H. (2009). 'Love is all you need': Social relatedness needs, materialism and subjective well-being. In Paper presented at the happiness and social relatedness goods conference in Venice, Italy, 11–13th June.
- Mortelmans, D. (2005). Sign values in processes of distinction: The concept of luxury. *Semiotica*, 157(1–4), 497–520.
- Nicolao, L., Irwin, J. R., & Goodman, J. K. (2009). Happiness for sale: Do experiential purchases make consumers happier than material purchases? *Journal of Consumer Research*, 36(2), 188–198.
- Nixon, M. G. (2007). Satisfaction for whom? Freedom for what? Theology and the economic theory of the consumer. *Journal of Business Ethics*, 70(1), 39–60.
- Norris, J. I., & Larsen, J. T. (2010). Wanting more than you have and its consequences for well-being. *Journal of Happiness Studies*. doi:10.1007/s10902-010-9232-8.
- O'Cass, A., & McEwen, H. (2004). Exploring consumer status and conspicuous consumption. *Journal of Consumer Behaviour*, 4(1), 25–39.
- O'Donoghue, T., & Rabin, M. (2000). The economics of immediate gratification. Journal of Behavioral Decision Making, 13, 233–250.
- Okonkwo, U. (2007). Luxury fashion branding: Trends, tactics and techniques. New York: Palgrave MacMillan.
- Oropesa, R. S. (1995). Consumer possessions, consumer passions, and subjective well-being. Sociological Forum, 10(2), 215–244.
- Packard, V. (1959). The status seekers. New York: David McKay Company.
- Phau, I., & Prendergast, G. (2000). Conceptualizing the country of origin of brand. *Journal of Marketing Communications*, 6(3), 159–170.
- Piron, F. (2000). Consumers' perception of the country-of-origin effect on purchasing intentions of (in)conspicuous products. *Journal of Consumer Marketing*, 17(4), 308–321.
- Plassmann, H., O'Doherty, J., Shiv, B., & Rangel, A. (2008). Marketing actions can modulate neural representations of experienced pleasantness. *Proceedings of the National Academy of Sciences of the United States of America*, 105(3), 1050–1054.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Prendergast, G., & Wong, C. (2003). Parental influence on the purchase of luxury brands of infant apparel: An exploratory study in Hong Kong. *Journal of Consumer Marketing*, 20(2), 157–169.
- Richins, M. L. (1987). A multivariate analysis of responses to dissatisfaction. Journal of the Academy of Marketing Science, 15(3), 24–31.
- Richins, M. L. (1994). Special possessions and the expression of material values. Journal of Consumer Research, 21(3), 522–533.
- Richins, M. L. (2004). The material values scale: Measurement properties and development of a short form. Journal of Consumer Research, 31(1), 209–219.
- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19(3), 303–316.
- Richins, M. L., McKeage, K. K. R., & Naijar, D. (1992). An exploration of materialism and consumptionrelated affect. Advances in Consumer Research, 19, 229–236.

- Rindfleisch, A., Burroughs, J. E., & Denton, F. (1997). Family structure, materialism, and compulsive consumption. *The Journal of Consumer Research*, 23(4), 312–325.
- Rindfleisch, A., Burroughs, J. E., & Wong, N. (2009). The safety of objects: Materialism, existential insecurity, and brand connection. *Journal of Consumer Research*, 36(1), 1–16.
- Rindfleisch, A., Freeman, D., & Burroughs, J. (2000). Nostalgia, materialism, and product preference: An exploratory study. Advances in Consumer Research, 27(1), 36–41.
- Roberts, J. (2000). Consuming in a consumer culture: College students, materialism, status consumption, and compulsive buying. *The Marketing Management Journal*, 10(2), 76–91.
- Roberts, J. A., Tanner, J. F., & Manolis, C. (2005). Materialism and the family structure-stress relation. Journal of Consumer Psychology, 15(2), 183–190.
- Rucker, D. D., & Galinsky, A. D. (2009). Conspicuous consumption versus utilitarian ideals: How different levels of power shape consumer behavior. *Journal of Experimental Social Psychology*, 45(3), 549–555.
- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Ryan, R., & Dziurawiec, S. (2001). Materialism and its relationship to life satisfaction. Social Indicators Research, 55(2), 185–197.
- Sass, D. A., & Smith, P. L. (2006). The effects of parceling unidimensional scales on structural parameter estimates in structural equation modeling. *Structural Equation Modeling*, 13(4), 566–586.
- Schaefer, A. D., Hermans, C. M., & Parker, R. S. (2004). A cross-cultural exploration of materialism in adolescents. *International Journal of Consumer Studies*, 2(4), 399–411.
- Schor, J. B. (1998). The overspent American. Why we want what we don't need?. New York: Harper Perennial.
- Sheldon, K. M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin*, 24, 1319–1331.
- Sheldon, K. M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies*, 7(1), 55–86.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445.
- Sirgy, J. M. (1998). Materialism and quality of life. Social Indicators Research, 43(3), 227-260.
- Solberg, E. G., Diener, E., & Robinson, M. D. (2004). Why are materialists less satisfied? In T. Kasser & A. D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 29–48). Washington, DC: American Psychological Association.
- Steel, P., Schmidt, J., & Schultz, J. (2008). Refining the relationship between personality and subjective well-being. *Psychological Bulletin*, 134(1), 138–161.
- Stubbe, J. H., Posthuma, D., Boomsma, D. I., & De Geus, E. J. C. (2005). Heritability of life satisfaction in adults: A twin-family study. *Psychological Medicine*, 35(11), 1581–1588.
- Stutzer, A. (2004). The role of income aspirations in individual happiness. Journal of Economic Behavior & Organization, 54(1), 89–109.
- Swinyard, W. R., Kau, A., & Phua, H. (2001). Happiness, materialism and religious experience in the US and Singapore. *Journal of Happiness Studies*, 2(1), 13–32.
- Tatzel, M. (2002). "Money worlds" and well-being: An integration of money dispositions, materialism and price-related behavior. *Journal of Economic Psychology*, 23(1), 103–126.
- Tatzel, M. (2003). The art of buying: Coming to terms with money and materialism. Journal of Happiness Studies, 4(4), 405–435.
- Thaler, R. (1981). Some empirical evidence on dynamic inconsistency. Economic Letters, 8(3), 201-207.
- Twitchell, J. B. (2002). Living it up. Our love affair with luxury. New York: Colombia University Press.
- Van Boven, L. (2005). Experientialism, materialism, and the pursuit of happiness. *Review of General Psychology*, 9(2), 132–142.
- Van Kempen, L. (2007). Status consumption and ethnicity in Bolivia: Evidence from durables ownership. International Journal of Consumer Studies, 31(1), 76–89.
- Vansteenkiste, M., Duriez, B., Simons, J., & Soenens, B. (2006). Materialistic values and well-being among business students: Further evidence of their detrimental effect. *Journal of Applied Social Psychology*, 36(12), 2892–2908.
- Vargas, P. T., & Yoon, S. (2006). On the psychology of materialism: Wanting things, having things and being happy. Advertising and Society Review, 7(1), 1–15.
- Vickers, J. S., & Renand, F. (2003). The marketing of luxury goods. An exploratory study—three conceptual dimensions. *The Marketing Review*, 3(4), 459–478.
- Vigneron, F., & Johnson, L. W. (2004). Measuring perceptions of brand luxury. Brand Management, 11(6), 484–506.

- Vohs, K. D., & Baumeister, R. F. (2007). Can satisfaction reinforce wanting? A new theory about long-term changes in strength of motivation. In J. Shah & W. Gardner (Eds.), *Handbook of motivational science*. New York: Guilford.
- Wang, J., & Wallendorf, M. (2006). Materialism, status signaling, and product satisfaction. Journal of the Academy of Marketing Science, 34(4), 495–505.
- Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology*, 24(3), 723–739.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070.
- Wiedman, K., Hennigs, N., & Siebels, A. (2009). Value-based segmentation of luxury consumption behavior. *Psychology & Marketing*, 26(7), 625–651.
- Williams, G. C., Cox, E. M., Hedberg, V. A., & Deci, E. L. (2000). Extrinsic life goals and health-risk behaviors in adolescents. *Journal of Applied Social Psychology*, 30(8), 1756–1771.
- Winkler, R. (2006). Does 'better' discounting lead to 'worse' outcomes in long-run decisions? The dilemma of hyperbolic discounting. *Ecological Economics*, 57(4), 573–582.
- Witt, U. (2010). Symbolic consumption and the social construction of product characteristics. *Structural Change and Economic Dynamics*, 21(1), 17–25.
- Wong, N. Y. (1997). Suppose you own the world and no one knows? Conspicuous consumption, materialism and self. Advances in Consumer Research, 24(1), 197–203.
- Wong, N. Y., & Ahuvia, A. C. (1998). Personal taste and family face: Luxury consumption in Confucian and Western societies. *Psychology and Marketing*, 15(5), 423–441.
- Wright, N. D., & Larsen, V. (1993). Materialism and life satisfaction: A meta-analysis. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 6, 158–165.
- Xiao, G., & Kim, J. (2009). The investigation of Chinese consumer values, consumption values, life satisfaction, and consumption behaviors. *Psychology & Marketing*, 26(7), 610–624.
- Zhong, J. Y., & Mitchell, V. (2010). A mechanism model of the effect of hedonic product consumption on well-being. *Journal of Consumer Psychology*, 20(2), 152–162.