

‘Love is all you need’: Social relatedness needs, materialism, and subjective well-being

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Abstract In the present study I explored the concept of materialism, relatedness needs, and subjective well-being by empirically examining the relationships between gender, educational level, need to belong, social provisions, family resources, materialism, and subjective well-being among young adults. Respondents providing the data in this study were 206 Dutch (43% males and 57% females), born between 1980 and 1990. Regression and canonical correlation results were in line with expectations: sufficient family resources and social provisions appeared elementary for achieving life satisfaction and a lack of these resources increased the pursuit of happiness through the possessions of goods. However, the use of material possessions as indicators of success and achievement in life were also positively related to the pursuit of happiness through possessions and well-being. Boundary conditions appeared to be a higher level of education, and sufficient social provisions and family resources.

Keywords Self-Determination Theory, materialism, social relatedness needs, subjective well-being

JEL Classification D12, D69

1 Introduction

In this paper I made an attempt to further understand the concept of materialism and its relationship with relatedness needs and subjective well-being. I did so by empirically exploring the relationships between gender, educational level, need to belong, social provisions, family resources, materialism, and subjective well-being among a special-interest group in society, namely young adults. One reason for my doing so was that, more than other values or personality traits, materialism is uniquely identified with consumer consumption behavior (Richins and Rudmin 1994), explaining the fact that marketing scholars for over two decades have studied materialism (e.g., Belk 1984; Richins and

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Dawson 1992; Dittmar and Pepper 1994; Belk 1995; Burroughs and Rindfleisch 2002) and its causes and consequences (e.g., Rindfleisch et al. 1997; Sirgy 1998). Research on the consequences of materialism largely address people's general life orientation and psychological well-being (e.g., Ryan and Dziurawiec 2001; Burroughs and Rindfleisch 2002; Christopher et al. 2004; Christopher et al. 2009), an area of psychological research that has received scholars' unremitting attention since the early Seventies (Larsen et al. 1985).

In the field of microeconomics and macroeconomic psychology, relatively many studies have addressed the relationships between materialism, subjective well-being, and economic variables, such as income (e.g., Diener et al. 1993; Rojas 2007; Rojas 2008), welfare level (e.g., Welsch 2007), and socio-economic class (e.g., Dittmar and Pepper 1994). These studies generally take a microeconomic perspective, assuming that materialism and people's well-being is determined to a great extent by the economic welfare state of a country, a household, or an individual (see, e.g., Diener et al. 1995; Diener and Suh 1997; Diener and Biswas-Diener 2002).

Richins and Rudmin (1994) made a plea for the study of the concept of materialism as an individual difference variable from a microeconomic-psychological perspective, stressing that the effect of materialism on economic behavior should not be overlooked. From this perspective, materialism is dominantly viewed as an individual's real and desired relationship with economic goods, and the pursuit of economic objectives through consumption (Richins and Rudmin 1994). Richins and Dawson (1992, p. 308) view materialism as a consumer value and define the concept as a "set of centrally held beliefs about the importance of possessions in one's life". They identified three belief domains of materialism: a) defining success: the extent to which one uses possessions as indicators of success and achievement in life, b) acquisition centrality: the extent to which one places possession (acquisition) at the center of one's life, and c) pursuit of happiness: the belief that possessions are essential to satisfaction and well-being in life. By distinguishing between these belief domains, Richins and Dawson assess materialism directly, reducing problems reported in the literature of inferred or confounded measures (for a thorough discussion of this matter, I refer to Richins and Rudmin 1994).

One of the defining characteristics of materialism as described by Richins and Dawson (1992), is that highly materialistic individuals show a stronger tendency to hold the belief that material possessions are essential to satisfaction and well-being in life. From a microeconomic perspective, this view of possessions is understandable: the important goals of spending and consumption in a continuously advancing economic society like ours, are utility, satisfaction, and improved quality of live (Richins and Rudmin 1994).

A plethora of studies, however, has suggested that the pursuit of economic well-being does not guarantee happiness or life satisfaction at the microeconomic-psychological level. For example, materialists have been found to be less satisfied than non-materialists with their lives in general and their standard of living in particular (e.g., Richins 1987; Richins and Dawson 1992; Sirgy 1998; Kasser 2002; Kasser and Ahuvia 2002). Richins and Dawson (1992) report findings showing that a materialistic value orientation is associated with lower self-esteem and lower satisfaction with specific aspects of one's live, such as with one's friends. Kasser and Ahuvia (2002) found that materialistic people tended to be less self-actualized, more anxious, and to have less vitality than less materialistic people. Apparently, the inverse relationship between materialism and well-being is a reliable one.

2 Self-Determination Theory

In search of explanations for this apparent inverse relationship, a number of studies explored from a psychological and relational perspective reasons why materialism is related to lower level of

subjective well-being. Self-determination theory (SDT) (Deci et al. 1995; Ryan and Deci 2000b; Ryan and Deci 2000a; Deci and Spielberger 2004) offers a broad, popular perspective on the mechanisms through which psychological and relational processes are related to personal well-being. SDT sheds light on relational functioning and the circumstances under which seemingly positive relational processes particularly result in benefits to relationships and the individuals of which they are comprised (La Guardia and Patrick 2008). According to SDT (Deci et al. 1995; Ryan and Deci 2000b; Ryan and Deci 2000a; Deci and Spielberger 2004), individuals have inherent propensities to be intrinsically motivated, to integrate external regulations of behavior into self-regulations, and in so doing integrate themselves into a larger social whole (Ryan and Deci 2000c). This propensity operates in conjunction with the fundamental human psychological needs for competence, relatedness, and autonomy (Ryan and Deci 2000b).

SDT focuses in particular on self-authored or intrinsic motivation resulting from these psychological needs (Ryan and Deci 2000b). Intrinsic motivation is described by Ryan and Deci (2000b, p. 70) as an individual's '...inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn.' The counterpart of intrinsic motivation is extrinsic motivation, or the performance of an activity in order to attain some separable outcome, rather than doing an activity for the inherent satisfaction of the activity itself (Deci et al. 1995; Ryan and Deci 2000a). Intrinsic and extrinsic motivation then reflect differing degrees to which the value and regulation of different behaviors has been internalized and integrated into an individual's value structure, contributing to a sense of self. This value structure can most parsimoniously be described as consisting of intrinsic values, such as growth, community contribution, and affiliation compared to extrinsic or materialistic values, such as financial success, fame, and physical appearance (Kasser and Ryan 1996; Kasser 2002; Kasser and Ahuvia 2002). A substantial amount of research has thus far supported the differential worth of intrinsic and extrinsic values in a variety of domains, among which the consumer behavior domain. In the latter domain, consumer researchers most often relate materialism, either as a personality trait (see, e.g., Belk 1985; Sirgy 1998), or as a extrinsic consumer value (Richins and Dawson 1992; Kasser and Ahuvia 2002), to life satisfaction and happiness.

Social-contextual conditions, like a supportive social environment, foster the motivation to develop and satisfy intrinsic values through supporting people's competence, relatedness, and autonomy needs (Ryan and Deci 2000b; Deci and Spielberger 2004). However, if the social environment is more likely to continually control the individual's behavior by thwarting the satisfaction of these basic psychological needs (e.g., through ostracism), the person is more likely to develop an extrinsic value orientation. Extrinsic motivation then becomes autonomous or self-determined through the process of internalizing and integrating behavioral regulations and their underlying values (Ryan and Deci 2000b; Deci and Ryan 2001). For example, research has shown that extrinsic value pursuits tend to crowd out psychological need-satisfying behaviors, such as prosocial engagement and affiliation (Kasser and Ryan 1996; Duriez et al. 2007), essential for achieving subjective well-being (Sheldon et al. 2001). Kasser, Ryan, Zax, and Sameroff (1995) found that individuals who have experienced maternal and social environments that were less supportive of their growth, self-expression, and intrinsic needs, were relatively more oriented to financial success than to prosocial and self-acceptance values. Deci and Ryan (1995) found that highly materialistic people derived their self-esteem from public accomplishments rather than from intrinsic belief in their own abilities. They also showed a stronger tendency to judge their own and others' personal qualities in terms of the number and quality of material possessions possessed (Richins and Dawson 1992). Possessions are then used in forming impressions of others and projecting images of the self (Richins and Rudmin 1994).

These findings, however, are not fully consistent with Deci and Spielberger's (2004) claim that intrinsic and extrinsic motivation are in fact interactive. Deci and Spielberger (2004) argued that extrinsic motivation may diminish or enhance intrinsic motivation if extrinsic motivation takes the

form of a behavioral incentive for behavior that cannot be ascribed to one's autonomy or perceived competence. If so, extrinsic motivators control, rather than support psychological needs, making people do an activity to attain some separable outcome such as social approval by others or a bonus (Deci and Spielberger 2004). For example, Sagiv and Schwartz (2000) found among university students across different countries that, if an environment provided opportunities to meet the goals embodied in one's values, and provided support and reinforcement for the importance of such values, holding environmentally congruent values were positively associated with well-being, regardless of the content of the value or goal.

Sagiv and Schwartz (2000) concluded that their results were inconsistent with Kasser and Ryan's (1996) claims that materialistic values are unhealthy. Based on SDT, Kasser and Ahuvia (2002) suggested that materialistic individuals, who are focused on possessions, are less healthy because they have not internalized intrinsic values for self-acceptance, affiliation, and community. These values lead people to engage in experiences which are likely to satisfy their basic psychological needs for affiliation and thus benefit their well-being (Kasser and Ryan 1996; 2002). By replicating an improved version of Sagiv and Schwartz' study (2000), Kasser and Ahuvia (2002) found further proof for the inverse relationship between high expectations of material success and happiness, as well as support for their belief that the main reason for the difference between their results and those of Sagiv and Schwartz (2000) was due to different conceptualizations and measurements of materialism.

3 Instrumentality of material possessions

Despite the mixed findings as discussed above, Sagiv and Schwartz's (2000) results lend support to Diener and colleagues' (2001) notion that resources such as money, physical attractiveness, social skills, or material possessions can positively influence subjective well-being when they are relevant to achieving the individual's goals (Diener et al. 2001). When these external resources help people making progress toward their goals, they tend to be happier. In particular when parents (Grolnick and Ryan 1989) and instructors (Williams and Deci 1996) have been more supportive of competence, autonomy, and relatedness needs during upbringing, providing a meaningful rationale for an extrinsically motivated behavior. According to Deci and Ryan (1985; 2001), extrinsic motivation will continue to control and diminish feelings of autonomy, competence, and so well-being, only when extrinsic values have been taken in but not transformed or integrated into one's value structure.

Consistent with the assumed instrumentality of material possessions, Richins and Dawson (1992) argue that highly materialistic individuals, next to the pursuit of satisfaction and happiness, also have a disposition to use possessions as indicators of success and achievement in life. From a social construction perspective (e.g., Gergen 1985), which asserts that knowledge about the material world is both socially shared and shaped, material possessions are viewed as symbols of various aspects of social identity, such as social class, gender, and status, whose meanings are socially constituted (Dittmar and Pepper 1994). Material possessions also symbolize more personal aspects of identity, such as individual qualities, one's life history, or relationships with others (Dittmar and Pepper 1994).

Recent studies on young adolescents' materialistic value orientations (see, e.g., Dittmar and Pepper 1994; Sagiv and Schwartz 2000; Kasser and Ahuvia 2002; Christopher and Schlenker 2004; Christopher et al. 2005) show that their objectives through consumption are indeed more often social than economic, orienting toward possessions, partly to impress people, to avoid negative peer evaluations, or to apply to a perceiver's endorsement of a materialistic outlook as an individual value orientation. These objectives clearly point towards the pursuit of relatedness needs. Relatedness involves the 'desire to feel connected to others' (Ryan and Deci 2000b), that is to feel close with others (Baumeister and Leary 1995). SDT hypothesizes that intrinsic motivation is more likely to

flourish in social contexts characterized by a sense of security and relatedness over one's lifespan (Ryan and Deci 2000b). For example, a small number of recent studies by Banerjee and Dittmar (2008) demonstrated that elementary school children perceived higher peer culture pressure in case of peer rejection. In addition, perceived peer pressure and materialism were positively related through the endorsement of social motives for materialism by the school children.

In short, prior evidence suggests positive and negative links between materialism and psychological well-being, materialism and relatedness needs, and relatedness needs and psychological well-being. Although social psychology theorists have long acknowledged that relatedness needs are important predictors of subjective well-being, to my knowledge few attempts have been made to explore the interplay between these needs, materialism, and subjective well-being (Christopher et al. 2004). Thus, I undertook the current investigation.

As already stated, I made an attempt in this study to further understand the relationships between materialism, relatedness needs, and subjective well-being, by empirically exploring the relationships between gender, educational level, need to belong, social provisions, family resources, materialism, and subjective well-being among a special-interest group in society, namely young adults. Given that the shaping of a value structure contributing to a sense of the self is elementary in their socialization prior to adulthood, then insights into the relationships between social processes and value expression through material belongings can tell us much about our society. The values youths carry with them into adulthood, perhaps especially that of materialism, will affect the private and public choices they make throughout lives in search of happiness.

Consistent with Self-Determination Theory (SDT) (Deci et al. 1995; Ryan and Deci 2000b; Ryan and Deci 2000a), the major contention of this study was that subjective well-being is achieved through the satisfaction of relatedness needs in a supportive social environment that allows an individual to develop high levels of self-authored motivation. Moreover, I hypothesized that the lack of such an environment and unfulfilled social needs would increase extrinsic, materialistic values, and decrease subjective well-being. I will present my hypotheses in the next section.

4 Social relatedness needs

In the following, I will briefly review separate lines of research on the relationships between materialism, subjective well-being, and a small number of relatedness need variables, being the need to belong, social provisions, and family resources. First, I will reflect in a few words on the value concept of materialism as defined by Richins and Dawson (1992).

4.1 The value concept of materialism

As briefly mentioned before, according to Richins and Dawson (1992), materialism is made up of three dimensions: possessions and acquisition-centrality (centrality), the role acquisition plays in the pursuit of happiness (happiness), and the use of possessions as an indicator of success in life (success). The value concept of materialism as defined by Richins and Dawson (1992; Richins and Rudmin 1994) is in line with the notion in SDT that intrinsic and extrinsic motivation reflect differing degrees to which the value and regulation of different behaviors has been internalized and integrated into a value structure. For the purpose of this study, I thus adopt Richins and Dawson's (1992) view of materialism as a value, reflecting the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states, including happiness.

However, I strongly felt that the pursuit of happiness, as measured by Richins and Dawson (1992), is in fact a more specific well-being evaluation of specific components of one's life such as work,

marriage, health, recreation, and religion, as discussed by Diener and colleagues (2001), thus more reflecting a desired end state than a central characteristic of materialism. I will thus treat from this point on the pursuit of happiness through possessions as an outcome variable of the other two belief domains of materialism, and an antecedent of general life satisfaction. Based on the previous discussion so far, I pose my first hypothesis:

H1a: There is a positive relation between materialism and the pursuit of happiness through possessions

H1b: There is a negative relation between materialism and subjective well-being

4.2 The Need to Belong

The need to affiliate originates from the belongingness hypothesis by Baumeister and Leary (1995). The belongingness hypothesis states that human beings have ‘a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships’ (Baumeister and Leary 1995, p.497). When the need to belong is thwarted through social exclusion or rejection, people generally react in a variety of negative ways. For example, Williams (2001) found that people who were ostracized reported decrements in physical health and increases in stress and anxiety. Twenge and her colleagues (Twenge et al. 2007) found that people who were told that they were likely to be alone later in life or who were rejected by peer group members, were less likely to donate money, less willing to volunteer time and effort in an experiment, less willing to help clean up after a mishap, and less cooperative in a mixed-motive game. These findings suggest that need to belong threats make people act less prosocially and make them more self-preoccupied. These belonging threats may also make people uncertain about their own value as people, decreasing levels of subjective well-being (Zadro et al. 2004; Stillman et al. 2009). I thus pose the following hypothesis:

H2a: There is a negative relation between the need to belong and the pursuit of happiness through possessions

H2b: There is a positive relation between the need to belong and subjective well-being

4.3 Social Provisions

In line with the idea that a supportive social environment fosters the self-authored motivation to satisfy social developing needs, I also expected subjective well-being a function of individual differences in social provisions. Social provisions refer to a person’s perception that other people are available for aid in times of need (Seidman et al. 2006). Christopher and colleagues (2004) studied the relationship between materialism, social support, and affective well-being and found that a materialistic value orientation increased negative affect, whereas it had no effect on positive affect. Increased levels of social provisions, however, resulted in lower levels of negative affect and higher levels of positive affect. The availability of social support has also been found to protect people from the deleterious effects of stress (e.g., Cohen and Hoberman 1983; Bolger and Amarel 2007). For example, Ross, Lutz, and Lakey (1999) found that women who rated themselves low in social support experienced greater reductions in positive affect after discussing social rejection than women who had high perceived support. I thus expected that social provisions correlate negatively with the pursuit of happiness through possessions and positively with subjective well-being:

H3a: There is a negative relation between the social provisions and the pursuit of happiness through possessions

H3b: There is a positive relation between the social provisions and subjective well-being

4.4 Family resources

I also expected that the quality of a person's upbringing would affect their value orientation. Undesirable family stressor events in the environment in which a person was brought up, have been found to result in an extrinsic, materialistic value-orientation. For example, Roberts, Manolis, and Tanner (2003) have demonstrated that people from divorced homes were more likely than those from intact homes to express values that view material possessions as a means of achieving happiness. Rindfleisch and colleagues (1997, p. 312) found that 'young adults reared in disrupted families are more materialistic and exhibit higher levels of compulsive consumption than young adults reared in intact families'. My hypothesis is thus that sufficient family resources are negatively related to the pursuit of happiness through possessions and positively related to subjective well-being:

H4a: There is a negative relation between sufficient family resources and the pursuit of happiness through possessions

H4b: There is a positive relation between sufficient family resources and subjective well-being

Finally, as discussed earlier, recent studies suggest that ostracized, socially isolated people might start endorsing social status motives for materialism, caring more about extrinsic, materialistic values (e.g., Christopher et al. 2005; Banerjee and Dittmar 2008), hence lowering subjective well-being. I thus hypothesize that the pursuit of happiness through possessions is negatively related to subjective well-being, as expressed in the fifth and final hypothesis:

H5: There is a negative relation between the pursuit of happiness through possessions and subjective well-being

The method as applied to test the hypotheses is discussed next.

5 Method

A total of 71 undergraduate students from Tilburg University, the Netherlands, collected the data in this study in exchange for credit toward a course requirement.

5.1 Respondents

A quota sample was drawn from the Dutch population of individuals born between 1980 and 1990. This narrow population was defined to control for age and cohort effects reported in the well-being literature. Respondents providing the data in this study were 206 Dutch (43% males and 57% females) young adults. My sample ranged in age from 18 years to 29 years ($M = 23.27$ years, $SD = 2.61$ years).

5.2 Measures

The participants filled out a paper-and-pencil questionnaire containing the well-known and commonly applied Need to Belong scale, the Social Provisions Scale, the Family Resources Scale, the Materialism Scale, and the Life Satisfaction Scale. These measures are discussed in detail below. All scale items were statements evaluated on 5-point Likert scales, ranging from 1 'completely disagree'

to 5 'completely agree', except for family resources. Scale ends for this scale were 1 'insufficient support' to 5 'exceptional support'.

Need to belong. Need to belong was measured with the 10-item Need to Belong Scale (Baumeister and Leary 1995; Leary et al. 2006), for which a satisfactory Cronbach's Alpha of .77 was obtained in this study. An example of an item is: "If other people don't seem to accept me, I don't let it bother me".

Social provisions. The size of a person's social relationships was measured with the Social Provisions Scale by Cutrona and Russell (1987). The scale contained six subscales (attachment; social integration, reassurance of worth, reliable alliance, guidance, and opportunity for nurturance) with four items each, totaling up to 24 items. Following Caspers, Cadoret, Langbehn, Yucuis, and Troutman (2005), a total social provision measure was computed by scoring the 24 items together and taking the scale mean. Cronbach's Alpha of the scale was .91, which is more than satisfactory.

Family resources. Family resources were measured through the Family Resources Scale as described by Rindfleisch et al. (1997). The five-item scale had a Cronbach's alpha of .77. Items measured the perceived extent of received family support for money, food, clothing, time and attention, and discipline. Respondents' scores were summed and averaged to obtain a single family resources score.

Materialism. Materialism was determined by means of Richins and Dawson's Materialism Scale (1992) which consisted of three subscales: possessions and acquisition-centrality (centrality), the role acquisition plays in the pursuit of happiness (happiness), and the use of possessions as an indicator of success in life (success). Reliability statistics were computed for each subscale, followed by the removal of items with low item-total correlations to obtain maximum subscale homogeneity. Cronbach's Alpha of the seven-item centrality subscale was .66. The final happiness subscale contained five items, the homogeneity of which was expressed through a satisfactory Cronbach's alpha of .71. The success subscale had a Cronbach's alpha of .74 on the basis of five items. For each subscale the mean was computed and used in subsequent analyses.

Subjective well-being. Subjective well-being was measured with the 5-item Satisfaction With Life Scale by Diener et al. (1985; Pavot et al. 1991; Pavot and Diener 1993). This scale was chosen because it assesses an individuals' conscious evaluative judgment of his or her life by using the person's own criteria, rather than satisfaction with particular life domains such as health or finances (Pavot and Diener 1993; Diener et al. 2001). An example of an item is: "In most ways, my life is close to my ideal". The internal consistency of the scale in this study was .78 (Cronbach's alpha).

Sociodemographics. Respondents were also inquired about their gender, age, and educational level (7 levels) for purposes of sample description and statistical analyses.

6 Results

Data were analyzed by means of descriptive statistics, reliability analyses, regression analyses, and canonical correlation analysis. The data were analyzed twice by means of regression analysis. The variable 'pursuit of happiness through possessions' was treated in the regression models once as an criterion variable and once as a predictor variable in the prediction of subjective well-being. The results of these analyses are reported next.

6.1 Descriptive statistics

Descriptive statistics, reliabilities, and zero-order correlations appear in Table 1. As seen in the table, pursuit of happiness through possessions was significantly related to social provisions ($r = -.21$), family resources ($r = -.15$), acquisition-centrality beliefs ($r = .29$), success beliefs ($r = .46$), and subjective well-being ($r = -.36$). It was, however, unrelated to gender, educational level, and need to belong. Subjective well-being correlated significantly with gender ($r = .12$), educational level ($r = .15$), social provisions ($r = .43$), family resources ($r = .32$), and pursuit of happiness through possessions ($r = -.36$).

Table 1

Descriptive statistics, reliabilities, and correlations between study variables and satisfaction variables ($N = 205$)

Scale	<i>M</i>	<i>SD</i>	α	r^b	r^c
Gender ^a	-	-	-	-0.10	0.12*
Educational level	5.49	1.14	-	0.04	0.15*
Need to belong	3.20	0.56	0.77	0.04	-0.04
Social provisions	4.30	0.43	0.91	-0.21**	0.43**
Family resources	4.07	0.56	0.77	-0.15*	0.32**
Acquisition-centrality beliefs	3.20	0.55	0.66	0.29**	0.04
Success and achievement beliefs	2.44	0.64	0.74	0.46**	-0.04
Pursuit of happiness through possessions	2.53	0.67	0.71	-	-0.36**
Subjective well-being	3.57	0.66	0.78	-0.36**	-

M = mean; *SD* = standard deviation; α = Cronbach's alpha.

^a dummy-coded: 0 = male; 1 = female.

^b Pearson correlation with pursuit of happiness through possessions (one-tailed).

^c Pearson correlation with subjective well-being (one-tailed).

** $p < 0.01$; * $p < 0.05$.

6.2 Regression analysis results

Multiple linear regression analysis was used to first develop a model for predicting the pursuit of happiness through material possessions from the respondent's gender, level of education (7 levels), need to belong, social provisions, family resources, success beliefs, and acquisition-centrality beliefs. A second model was then constructed for predicting life satisfaction by means of gender, level of education, need to belong, social provisions, family resources, and pursuit of happiness through possessions. A data check for (serious) assumption violations regarding normality, linearity, multicollinearity, and independence of residuals, revealed that corrective statistical actions were not needed. The results of the regression analyses are reported in Table 2.

The first seven-predictor model was able to account for 25% of the variance in pursuit of happiness: $F(7, 196) = 10.88$, $p < .001$, effect size $f^2 > .11$. Social provisions ($\beta = -.16$), family resources ($\beta = -.14$), acquisition-centrality beliefs ($\beta = .17$), and success beliefs ($\beta = .37$) had significant partial effects ($p < .05$) in the full model. Hence, H1a, H3a, and H4a were supported by the data, whereas H2a was not supported.

The second model significantly explained 30% ($F(6, 197) = 15.41$; $p < .01$; effect size $f^2 > .10$) of the variance in life satisfaction. The significant predictors ($p < .05$) in the model were level of education ($\beta = .12$), social provisions ($\beta = .32$), family resources ($\beta = .21$), and the pursuit of happiness through possessions ($\beta = -.26$). Again, H1b, H3b, and H4b were confirmed, whereas H2b was

unsupported by the data. H5 was supported as well, as can be seen by the negative and significant beta coefficient for the pursuit of happiness through goods.

Table 2

Hierarchical regression results on pursuit of happiness through goods and subjective well-being

Variables	Model 1: Pursuit of happiness through goods			Model 2: Subjective well-being		
	Beta	<i>t</i>	Adj. <i>R</i> ²	Beta	<i>t</i>	Adj. <i>R</i> ²
			0.25**			0.30**
Gender ^a	-0.04	-0.68		0.02	0.34	
Educational level	0.09	1.40		0.12	1.98*	
Need to belong	0.01	0.16		-0.10	-1.65†	
Social provisions	-0.16	-2.39*		0.32	5.01**	
Family resources	-0.14	-2.14*		0.21	3.32**	
Acquisition-centrality beliefs	0.17	2.42*				
Success and achievement beliefs	0.37	5.22**				
Pursuit of happiness through possessions				-0.26	-4.34**	

^a dummy-coded: 0 = male; 1 = female.

* $p < 0.05$; ** $p < 0.01$; † $p < 0.10$.

6.3 Canonical correlation analysis

To further explore the relationship between relatedness needs, materialism, and life satisfaction, an exploratory canonical correlation analysis was conducted to examine the model with pursuit of happiness through goods and life satisfaction as the dependents and the remaining variables as the independents.

Tests of dimensionality for the canonical correlation analysis, as shown in Table 3, indicated that both canonical dimensions were statistically significant at the .05 level. Dimension 1 had a canonical correlation of 0.53 between the sets of variables (Wilks $\lambda = .54$; $F(14, 390) = 9.91$; $p < .001$), while for dimension 2 the canonical correlation was still substantial at 0.47 (Wilks $\lambda = .76$; $F(6, 196) = 10.37$; $p < .001$).

Table 3

Test of Canonical Dimensions

Dimension	Canonical Correlation	Multivariate <i>F</i>	<i>Df1</i>	<i>Df2</i>	<i>p</i>
1	0.53	9.91	14	390	0.000
2	0.47	10.37	6	196	0.000

Table 4 presents the standardized canonical coefficients for both dimensions across both sets of variables.

Table 4
Standardized canonical coefficients for both dimensions

	Dimension	
	1	2
<i>Outcomes (dependents)</i>		
Pursuit of happiness through possessions	0.85	0.66
Subjective well-being	-0.30	1.03
<i>Antecedents (independents)</i>		
Gender ^a	-0.10	0.04
Educational level	0.08	0.33
Need to belong	0.10	-0.27
Social provisions	-0.47	0.59
Family resources	-0.35	0.30
Acquisition-centrality beliefs	0.30	0.12
Success and achievement beliefs	0.57	0.60

^a dummy-coded: 0 = male; 1 = female.

For the satisfaction variables, the first canonical dimension was most strongly influenced by the pursuit of happiness through goods (.85), followed by life satisfaction (-.30). For the independent variables, the first dimension was comprised of social provisions (-.47), family resources (-.35), defining success (.57), and acquisition centrality (.30). Subjective well-being (1.03) most strongly influenced the second dimension, followed by the pursuit of happiness through goods (.66). For the second dimension level of education (.33), social provisions (.59), family resources (.30), and the use of material possessions as indicators of success and achievement in life (.60) were the dominating independents. Figures 1 and 2 visualize the results of the canonical correlation analysis.

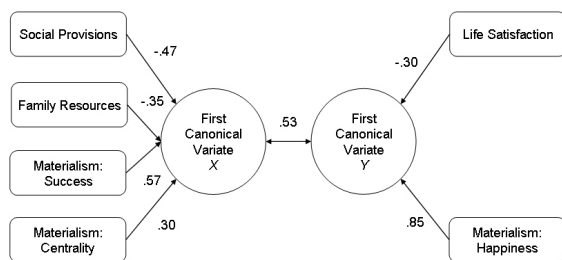


Figure 1: Loadings and canonical correlation for the first variate pairs (loadings greater than .30); Sq. Cor: .28 ($p < .001$).

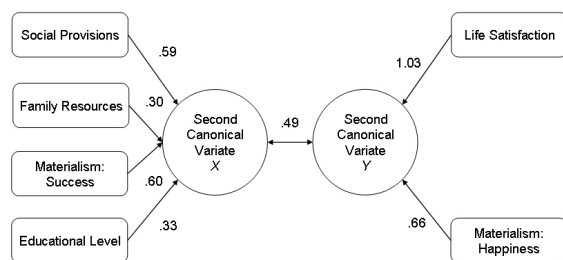


Figure 2: Loadings and canonical correlation for the second variate pairs (loadings greater than .30); Sq. Cor: .24 ($p < .001$).

Some theoretical and methodological implications of these results for scholars and practitioners in happiness research will be discussed next in the conclusion section of this paper.

7 Conclusion

The goal of this study was to come to a further understanding of the concept of materialism and its relationship with social relatedness needs and subjective well-being among young adults. I distinguished three materialism dimensions on the basis of Richins and Dawson's (1992) Materialism Scale, but instead of combining them into a single materialism scale, I analyzed on the individual subscales, treating the pursuit of happiness through possessions once as a dependent variable and once as an independent. The materialism subscales acquisition-centrality and success and achievement, and the social relatedness needs indicators need to belong', social provisions, and family resources were correlated with the pursuit of happiness through possessions materialism subscale and subjective well-being.

I found in line with my hypotheses both materialism subscales to be positively related to the pursuit of happiness through material possessions and inversely related to subjective well-being. These findings so far endorse the findings of the majority of studies on materialism and subjective well-being (e.g., Richins 1987; Richins and Dawson 1992; Sirgy 1998; Kasser and Ahuvia 2002), showing the inverse relationship to be a reliable one. My finding that sufficient social provisions and family resources were necessary conditions for subjective well-being, and attenuating materialism, further supports the validity of the notion in SDT that environmental conditions in support of autonomy, competence, and relatedness needs increase subjective well-being, most likely through higher intrinsic motivation (Ryan and Deci 2000b; Deci and Spielberger 2004).

I had no a priori hypotheses about how gender and level of education would relate to both satisfaction measures, and my findings suggest that there may in fact be no relationship between both variables sets, except for level of education and subjective well-being. An explanation for this relationship may be that higher education contributes to feelings of autonomy and competence, hence increasing subjective well-being through intrinsic motivation. Level of education is regarded part of the life satisfaction domain 'place in community', as discussed by Cummins (1996). This domain inclusively contains the constructs of social class, education, job status, community integration, community involvement, self-esteem, self-concept, and empowerment, reflecting hierarchical position within community life that implies no intimacy (Cummins 1996). Although Cummins (1996) did find the intimacy domain to be the most important determinant of life satisfaction, 'place in community' was argued to contribute significantly to life quality and satisfaction.

I did not find a relationship between need to belong and both satisfaction measures. In retrospect, this might be explained as follows. According to Baumeister and Leary (1995, p.497), the belongingness hypothesis states that human beings have 'a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships'. As such, the concept strongly pertains to the psychological need for relatedness in SDT (Ryan and Deci 2000b). There is, however, one important difference. According to SDT, competence, autonomy, and relatedness are needs whose fulfillment will increase intrinsic motivation. A deeper examination of the Need to Belong scale by Baumeister and Leary (1995), however, gives rise to the thought that a high agreement with the scale statements, and by that a high need to belong, might undermine respondents' feelings of autonomy when present, the latter being positively related to subjective well-being. If so, this would make the instrument less appropriate in the context of SDT and life satisfaction studies. I will go deeper into this in the next paragraph where I will briefly discuss the results of the exploratory canonical correlation analysis.

The results of both regression models were fully supported by the first canonical dimension in the canonical correlation analysis and in line with expectations: sufficient family resources and social provisions appear elementary for achieving life satisfaction and a lack of these resources may increase the pursuit of happiness through the possessions of goods. However, the second canonical dimension

showed that the use of material possessions as indicators of success and achievement in life was also positively related to both the pursuit of happiness through possessions and subjective well-being.

Boundary conditions appear to be a higher level of education, sufficient family resources, and a considerable amount of social provisions. It has long been acknowledged that possessions have different meanings for individuals low and high in materialism and that these individuals use possessions in different ways (see, e.g., Richins and Rudmin 1994). For example, Richins (1994) found that materialists are more likely to value possessions for their status, appearance-related, and utilitarian meanings while those low in materialism are more likely to derive value from a possession's symbolic tie with other individuals (e.g., gifts) or its potential for hedonic satisfaction. However, my findings provide preliminary evidence suggesting that intrinsically motivated, happy young adults might also take up into their value structure next to their social provisions the hedonic pleasures of material possessions and their sign value, simply because they can afford it. Those who are less socially provided might seek after satisfaction in life directly through consumption experiences, indirectly through complying with the endorsement of social motives for materialism by others, or through masking feelings of insecurity by means of the sign value possessions appear to have.

This might also explain why, as can be seen in Tables 2 and 4, need to belong tended to correlate positively with the pursuit of happiness through possessions, and negatively with subjective well-being, whereas the relatedness-need variables showed the reverse pattern. At the same time, the belongingness construct, as opposed to the relatedness-need variables, tended to correlate negatively with subjective well-being. It appears that increased feelings of autonomy and competence under high-support conditions decreased individual's reported feelings of belongingness as expressed by the belongingness scale, whereas a less supportive environment increased the respondent's awareness of his or her belongingness needs. In the latter, materialism might increase and subjective well-being might decrease. Since the last considerations are no more than suspicions, further research is needed to gain additional insight into this matter and validate these results, taking different populations, measures, and additional explanatory variables. SDT appears to be an interesting perspective from which to do so. It stresses the importance of intrinsic motivation to achieve life satisfaction, and the importance of mutual respect, love, and support. Because it again appears that love is all we need.

Of the many ways in which materialism might influence behavior and subjective well-being, only a few have been addressed in this study. However, it is hoped that this paper successfully demonstrated some of the ways in which materialism relates to social behavior and well-being, and that researchers in the future will be more apt to consider both the negative and positive sides of a materialistic value orientation from a variety of perspectives.

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