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What motivates people to be materialistic? Developing a measure of materialism motives

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Abstract

This article presents, through a series of studies conducted in six countries, the development, psychometric testing, and cross-cultural validation of an independent measure of materialism motives involving three dimensions: needs for happiness, social recognition, and distinctiveness. We demonstrate that materialism (beliefs about the importance of money and material possessions in their life) influences life satisfaction through the fulfillment of these three materialism motives. Furthermore, and non-surprisingly, these three motives are also related to personal values. Theoretical and policy implications of this new measure are considered, and avenues for future study presented.

1 | INTRODUCTION

Materialism is an important construct that has gained considerable attention due to its demonstrated impact on consumers' quality of life. Indeed, many previous studies have shown that materialism is negatively correlated with life satisfaction and subjective well-being (Burroughs & Rindfleisch, 2002; Dittmar, Bond, Hurst, & Kasser, 2014; Sirgy et al., 2012), while others (i.e., Shrum et al., 2013) have indicated there may be occasions, such as in the pursuit of self-esteem where materialism may be positively related to well-being. Accordingly, because materialism can have important well-being consequences, it is essential to understand how materialism develops so that where appropriate it might be prevented or at least curbed. To this end, researchers have identified several antecedents of materialism: peer and family communication about consumption (e.g., Churchill & Moschis, 1979), family structure (e.g., Benmoyal-Bouzaglo & Moschis, 2010), television viewership (e.g., Shrum, Burroughs, & Rindfleisch, 2005), and advertising (e.g., Goldberg, Gorn, Peracchio, & Bamossy, 2003).

Even though understanding how materialism develops and how it affects life satisfaction is essential, it is also important to understand the underlying *motive(s)* that explain why people become materialistic. Indeed, based on values research Richins and Dawson (1992) have suggested that materialistic people *value* material possessions more highly than they do other goals in life. This still begs the question, why is this so? That is, what *motivates* people to value material possessions so highly? This study is guided by this question.

Richins and Dawson (1992, pp. 307), conceptualized materialism as a value and proposed that materialistic people "value possessions and their acquisition more highly than most other matters and activities in life." Their measure, the Materialism Value Scale or MVS, captures this value through the dimension "acquisition centrality," with related beliefs including "happiness" and "success." *Acquisition centrality* refers to the importance of possessions and their acquisition. In a way, this dimension measures the extent to which people place significant emphasis on possessions and means to acquire possessions (Richins & Dawson, 1992). That is, people high on acquisition centrality are more materialistic than people who are low on acquisition centrality. The *happiness* dimension refers to the belief that possessions

and their acquisition bring happiness to people's lives. The *success* dimension refers to the notion that materialistic people "judge their own and others' success by the number and quality of possessions accumulated" (Richins & Dawson, 1992, p. 304). In other words, according to Richins and Dawson (1992), people acquire possessions in the pursuit of *happiness*, and to view themselves as successful and to impress others by their *success*. Therefore, while *acquisition centrality* measures the level of materialism (i.e., how materialistic people are), the *happiness* and *success* dimensions measure the reasons (or motives) people value material possessions.

Based on the above, we believe the core meaning of materialism, as reflected in the MVS, is confounded by considering both the level of materialism and the motives behind materialism within the same measure. Given the existence of a contrasting relationship between materialism and well-being (Shrum et al., 2013), which in turn may be explained by differing motives (Shrum et al., 2013; Srivastava, Locke, & Bartol, 2001), the importance of developing a better understanding of the motives behind materialism is warranted.

In addition, we believe it to be important to give independent consideration to the motives behind materialism because doing so should enable marketers and others (i.e., public policy officials) to potentially address problems as well as opportunities related to consumer materialism levels where relevant. Indeed, this would be particularly valuable in the situation of a negative association between materialism and life satisfaction. Thus, while recognizing that Richins and Dawson (1992) include motives in their measure, we believe that renewed and further consideration is warranted.

Accordingly, this article builds on Richins and Dawson (1992) by first, revisiting the underlying motives that may help explain the influence of materialism (high value placed on material possessions) on life satisfaction; and second, based on our developed understanding, presenting a dedicated measure of materialism motives, which we call the measure of materialism motives (MMM). Like Richins and Dawson, we conceptualize materialism as a value. In contrast to Richins and Dawson, however, we distinguish motives of materialism from the "state" of materialism itself.

To explain the motives for materialism, we distinguish between instrumental and terminal values, and consider materialism as an instrumental value used to achieve some terminal values, or major life goals (Csikszentmihalyi & Rochberg-Halton, 1981; Rokeach, 1973). Instrumental materialism refers to using material possessions as a means of fulfilling personal values and life goals (Rochberg-Halton, 1986). We believe that it is important to understand these terminal values, or motives to be materialistic, to better understand the relationship between materialism and life satisfaction, as well as to help materialistic people find healthier ways to achieve their desired terminal values.

It should be noted that when we refer to materialism motives, we do not differentiate between intrinsic or extrinsic motives (Kasser & Ryan, 1993). Even though materialism, by itself, is considered an extrinsic motive (i.e., as a proxy to financial success) in the self-determination and materialism literature (Kasser & Ahuvia, 2001; Kasser & Ryan, 1993), motives to become materialistic may be either

intrinsic or extrinsic as people may value material possessions to "fulfill other values such as autonomy (e.g., entrepreneurship), practical needs of life, enjoyment of art, and other values" (Carver & Baird, 1998; Srivastava et al., 2001, p. 960). Accordingly, instead of differentiating between intrinsic and extrinsic motives of materialism, we consider these motives as major life goals, or terminal values, that guide people's actions to acquire more material possessions.

In summary, the purpose of this article is threefold: First, to develop a reliable and valid MMM that captures the terminal values associated with materialism. The newly developed measure should help policy makers identify the reasons for an individual's high level of materialism, as well as allow for the classification of materialistic consumers based on their underlying motives, and consequently, develop policies to more effectively regulate materialism to enhance rather than detract from life satisfaction.

Second, to cross-culturally validate the MMM. Beyond validation, the results will allow marketers and policy makers to compare motives of materialism across different countries, and accordingly, develop appropriate materialism policies for each respective country. Furthermore, the MMM should help researchers develop and test theoretical models explaining the various motives behind materialism in different countries.

Third, to highlight the potential complementary nature of both the MVS and MMM. Complementarity occurs having differentiated between materialism and materialism motives. Indeed, if a measure of materialism is sought, potentially Richins and Dawson's acquisition centrality MVS subscale could fulfil this role. The MMM would then complement the MVS subscale by identifying the main motives behind being materialistic. In the following section, we unpack the conceptual structure of materialism in greater detail.

2 | CONCEPTUAL DEVELOPMENT

Table 1 presents an overview of the various ways that materialism has been operationalized in the literature (Dittmar et al., 2014). Most materialism studies have defined materialism as beliefs placed on the importance of money, possessions, or material goals. In this study, we define materialism as "individual's long-term endorsement of value and associated beliefs about the importance of money and material possessions." Our definition is closely related to "centrality value," or the centrality of material possessions and wealth in a person's life (Richins & Dawson, 1992). Yet, it should be noted that an individual's motives behind materialism are not a part of the materialism construct itself. This is because individuals may possess a similar degree of materialism based on different motives.

2.1 | Materialism motives

Values are considered as cognitions that are most abstract guiding much of human behavior (Kahle, 1996; Rokeach, 1973). Values are important because they transcend specific situations and affect all

TABLE 1 Materialism: Conceptual definitions and operationalization

Conceptual definition	Measures	References
Personality traits and behaviors linked to a materialist orientation	Possessiveness, non-generosity envy, or accumulating goods.	Belk (1984)
Value of having money and possessions	Value attached to having money and possessions	Robak, Chiffreller, and Zappone (2007) Tang (1992)
Beliefs related to money and wealth	Beliefs related to money and wealth/status	Mitchell and Mickel (1999)
Materialist values and beliefs	The centrality of material possessions and wealth in a person's life (centrality) Beliefs that they are a good way to judge the success of self and others (success) Beliefs that their acquisition increases happiness (happiness).	Richins and Dawson (1992)
Importance of having money and possessions (absolute)	Importance of money, possessions, or financial success	Nickerson, Schwarz, Diener, and Kahneman (2003). Kasser and Ryan (1993, 1996)
Importance of having money and possessions (relative to other goals)	Strength of financial success compared to intrinsic goals	Kasser and Ryan (1993, 1996) Srivastava et al. (2001)
Importance of material goals (absolute)	Importance of a set of material goals including money, income, material possessions	Casas, González, Figuer, and Coenders (2004).
Importance of material goals (relative to other goals)	Strength of a set of material goals including financial success, fame, and image, compared to intrinsic goals	Kasser and Ryan (1996)

Note: Adapted from Dittmar et al. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107(5), 879.

aspects of human life, including consumption behavior (Limon, Kahle, & Orth, 2009; Shim & Eastlick, 1998). Rokeach (1973) differentiated between terminal (i.e., end-states of existence) and instrumental (i.e., modes of conduct) values. Terminal values are perceived as the ultimate goals of life, or the major life motives, that are worth striving for (Haller & Hadler, 2006; Rokeach, 1973). Instrumental values, on the other hand, are "desirable modes of behavior that are instrumental to the attainment of desirable end-states" (Rokeach, 1973, p. 48). In other words, instrumental values define the ways, or paths, to attain terminal values. As stated above, we conceptualize materialism as an instrumental value used to attain desired higher-order terminal values. People become materialistic and value material possessions because they believe that these material possessions will help them achieve identified terminal values. In other words, people are motivated to accumulate material possessions in the hope of meeting their major life goals (i.e., motives).

Researchers have studied several different motives of materialism. Some of these motives include happiness (e.g., Carver & Baird, 1998; Clark & Micken, 2002; Richins & Dawson, 1992; Roberts, Tanner, & Manolis, 2005), financial security (e.g., Richins & Dawson, 1992; Srivastava et al., 2001), social recognition (e.g., Clark & Micken, 2002; Richins & Dawson, 1992; Roberts et al., 2005), freedom (e.g., Srivastava et al., 2001), power over others (e.g., Srivastava et al., 2001), uniqueness and distinctiveness (e.g., Snyder, 1992; Tian, Bearden, & Hunter, 2001), success (e.g., Richins & Dawson, 1992), and sense of belonging (e.g., Clark & Micken, 2002).

These motives can be classified in terms of values related to individual self (need for distinctiveness, freedom, financial security),

values related to social self (social recognition, power over others, sense of belongingness), and values related to an ultimate outcome (happiness). Also, a thorough literature review suggests that distinctiveness, social recognition, and happiness motives are common for materialistic people. Instead of trying to capture all materialism motives within one complex and lengthy measure, we opted to work toward developing a parsimonious measure by focusing solely on three of the above common motives of materialism: happiness, social recognition, and distinctiveness (see Table 2).

2.1.1 | Happiness (materialistic to be happy)

Happiness, described as contentedness, is one of the terminal values listed by Rokeach (1973). It is also included in the List of Values (Kahle, 1996) as fun and enjoyment in life (i.e., leading a pleasurable, happy life), and in Schwartz's Value Scale (Schwartz & Boehnke, 2004) as hedonism (i.e., pleasure or sensuous gratification for oneself [pleasure, enjoying life, self-indulgent]). In fact, "research on life goals and wishes confirmed that seeking happiness is a common desire" (King & Napa, 1998, p. 157). Although happiness is the ultimate goal of life for many people, the ways to achieve it, or *desirable modes of behavior* (Rokeach, 1973) for the attainment of happiness, might differ among people. For instance, while social relations (i.e., relations with family and friends) might be the core source for some people's happiness, money, or material living conditions might be the source of happiness for others. Indeed, as discussed earlier, conceptualizations of materialism often refer to the belief that material possessions will bring

TABLE 2 Motives of materialism (importance on money and material possessions)

Motives for materialism ^a	Personal values	Evaluation standard for material life	Impact on self	References
Distinctiveness (material possessions are key to my unique identity)	Internal value (self-fulfillment, self-respect, and a sense of accomplishment)	Realistic and achievable standard (economic motivation)	Individual self Independent self	Sirgy et al. (2013)
Social recognition (material possessions signal my success and status to others)	External value (sense of belonging, being well-respected, security)	Realistic and achievable standard (self-enhancement)	Social self Inter-dependent self	Hudders and Pandelaere (2012) Sirgy et al. (2013) Thyroff and Kilbourne (2018)
Happiness (material possessions will make my life happy)	Interpersonal value (excitement, warm relationships with others, fun and enjoyment in life)	Unrealistically high standard (self-discrepancies)	Ideal self	Dittmar et al. (2014) Sirgy (1998)

^aMotives for materialism: Material possessions are important to me for the following reasons.

happiness in life (Richins & Dawson, 1992). In other words, materialistic people think that they will be happier if they acquire more material possessions. Several studies have provided empirical evidence for considering happiness as the main motive behind obtaining material possessions. Durgee, O'Connor, and Veryzer (1996), for instance, showed that for some people "collecting" and "having a new car" are among the means to express their happiness. Kahle, Gurel-Atay, Xie, and Lee (2014) found that people who listed happiness as their most important value tend to associate their perception of "success in life" with materialistic consumption. Clark and Micken (2002) showed that materialistic people from three countries (France, Australia, and Mexico) place higher importance on the "fun and enjoyment in life" value as compared to non-materialistic people from the same countries. Based on past research, we concur that happiness is one of the terminal values, or motives for becoming materialistic. Accordingly, it would appear logical to include it in the MMM.

2.1.2 | Social recognition (materialistic to gain social recognition)

Social recognition is another value frequently included in popular value measures. Rokeach (1973) described it as respect and admiration from others. Kahle (1996, p. 138) includes being well-respected as one of nine core values and defines it as "to be admired by others and to receive recognition." The power dimension of the Schwartz Value Scale (Schwartz & Boehnke, 2004) refers to social status and prestige and is measured through four items: authority, social power, wealth, and preserving one's public image. Like happiness (and other terminal values), people may pursue different ways to gain social recognition from others. For some, it might be through being successful at work or at school, while for others it might be by acquiring material possessions (Braun & Wicklund, 1989; Eastman, Goldsmith, & Flynn, 1999). The success dimension of the MVS suggests that "materialists tend to judge their own and others' success by the number and quality of possessions accumulated" (Richins & Dawson, 1992,

p. 304). Packard (1959) argued that people buy products to signal a superior level of status to themselves and others. Han, Nunes, and Dreze (2010) demonstrated that people who possess a need to demonstrate status, do so by using loud luxury products (to signal wealth) or loud counterfeits (if they are not wealthy enough to afford true luxury). A cross-cultural study conducted by Clark and Micken (2002) in the United States, France, Australia, and Mexico revealed that being well-respected, as a value, is more important to high materialists than low materialists. Accordingly, in line with previous research, we propose that gaining social recognition is an important motive that drives material acquisition; and thus, we include it in our new measure of materialism motives.

2.1.3 | Distinctiveness (materialistic to be unique)

Distinctiveness refers to the need to feel different from others (Brewer, 1991). Being unique plays a significant role in identity formation. Although this need is not included in widely-used values scales (e.g., Rokeach Value Scale, Rokeach, 1973), it has been acknowledged as an important need, or value, in the psychology and marketing literature (e.g., Snyder, 1992; Tian et al., 2001).

Deviance regulation theory, for instance, suggests that people tend to maintain their desired self-images by regulating the ways they differ from other people (Blanton & Christie, 2003). Abosag, Ramadan, Baner, and Jin (2019) argues, based on the theory of uniqueness developed by Snyder and Fromkin (1977), that when the need to see oneself as different from other people is aroused, it competes with other motives that may threaten the perception of perceived distinctiveness. In marketing, consumers' need for uniqueness is defined as "the trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self-image and social image" (Tian et al., 2001, p. 52). Like other motives in life, the distinctiveness motive can be satisfied through different modes of actions (Rokeach, 1973), and some of these actions may be more or less

adaptive, or healthier, than others (Kahle, 1983). For instance, some people may engage in high-risk leisure activities (e.g., skydiving, climbing) to feel different from others (Celsi, Rose, & Leigh, 1993). Material possessions can also be used as a point of differentiation. Indeed, Tian, Bearden, and Hunter (2001, p. 50) suggested that "being different from others or becoming distinctive among a larger group often results from signals conveyed by the material objects that consumers choose to display." Snyder (1992) found that people who are high in need for uniqueness are more likely to be attracted by scarce products because the acquisition of scarce products is believed to lead to proclaiming one's individuality or distinctiveness. Belk (1988, p. 160) asserts that possessions are perceived as part of the self and a reflection of a person's identity and suggests that "we are what we have" as "we learn, define, and remind ourselves of who we are by our possessions." Accordingly, based on the literature, we propose that an important motive for people to acquire material possessions is to feel distinct from others. Consequently, we include the distinctiveness motive in our measure of materialism motives.

2.2 | The need for a measure of materialism motives

Based on the preceding discussion concerning terminal versus instrumental values, we submit that materialism is an instrumental value used to attain three terminal values, or major life motives. In other words, materialistic people have (a) the motive to seek *happiness* and the instrumental belief that having material possessions is key to happiness; (b) the motive to seek *social recognition* by significant others and the instrumental belief that having material possessions is key to social recognition; and (c) the motive to seek *distinctiveness* (i.e., develop an identity that sets the person apart from the crowd) and the instrumental belief that having material possessions is key to asserting one's distinctiveness. Thus, the major contribution of this research is to make a clear distinction between materialism (the state of materialism as measured by the centrality dimension of MVS) and the motives underlying materialism (happiness, social recognition, and distinctiveness) by demonstrating that the motives of materialism can explain the impact of materialism on life satisfaction.

Existing measures of materialism do not fully capture these three motives. Therefore, we set to develop a new, cross-culturally valid and reliable measure to capture the three motives of materialism discussed above. Having explored above the relevant literature on materialism, motives of materialism, and in doing so supported the need for a measure of materialism motives, the remainder of this article is structured as follows: The next section examines the procedures used to develop and refine our MMM. This is followed by a detailed presentation of all studies conducted across six countries. In doing so, we highlight in turn why each was conducted. We then follow this section with a detailed discussion of our findings and their meaning both for the academy and practitioners. We close the article with concluding thoughts, recognition of limitations and suggested avenues for future research.

3 | SCALE DEVELOPMENT

To develop an adequate measure to capture three dimensions of materialism motives, procedures described by Churchill (1979), DeVellis (1991), and Hinkin (1995) were followed. These procedures consisted of seven separate data collection episodes involving 453 university students and 1,994 adult respondents from six countries. Table 3 provides an overview of these data collection episodes and the remaining sections report the results. IBM SPSS Statistics and LISREL programs were used to analyze the data in all procedures. Initial descriptive analyses revealed some variables with high skewness and kurtosis. Because the maximum-likelihood method inflates Chi-square results and can lead to the rejection of true models when the variables are highly non-normal (West, Finch, & Curran, 1995), the Satorra-Bentler corrected Chi-square (Satorra, 2000) was used in all analyses. Also, it should be noted that cases were removed from further analyses when the number of missing values was large (exceeding 5%). Pairwise deletion was used for missing values less than 5%. The data that support the findings of this study are available from the corresponding author upon reasonable request.

3.1 | Item generation: Study 1

The item generation process was guided by our theoretical conceptualization of the motives of materialism. More specifically, 75 items were generated to reflect the three motives of materialism discussed above to represent the initial item pool. As suggested by previous researchers (e.g., Churchill, 1979), we reviewed the relevant literature streams (e.g., materialism, values, quality of life) and previously established scales (Belk, 1984; Eastman et al., 1999; Goldberg et al., 2003; Mowen & Spears, 1999; Richins & Dawson, 1992; Tian et al., 2001; Ward & Wackman, 1971) while generating our items. Because mixed-worded items create problems in cross-cultural settings (Wong, Rindfleisch, & Burroughs, 2003), we restricted the item pool to positively worded items. Items with possible wording problems were eliminated in the initial screening, leaving 60 items reflecting 20 items for each of the three dimensions. Of these 60 items, 34 were developed by the authors of this article, 16 were modified from previously developed scales, and 10 were adopted from previously developed scales. Using a common respondent debriefing technique, five adults were recruited and asked to examine these remaining items to reveal any wording and other face validity problems. Based on their feedback, some items were further refined such that they more aptly reflected our proposed motives as intended. All items were measured using 5-point Likert-type scales (strongly disagree/strongly agree).

3.2 | Scale purification: Study 2 and Study 3

The purpose of the second and third studies was to purify the scale by conducting exploratory factor analysis and reliability analysis.

TABLE 3 Overview of studies

Study number	Study name	Purpose of the study	Characteristics of samples	Data analysis method used
Study 1	Item generation	Identifying wording and face validity problems regarding the initial item pool	• Convenience sampling • US adult sample • $N = 5$	Not applicable
Study 2	Scale purification	Assessing the factor structure of all items generated in Study 1	• Convenience sampling • US student sample • $N = 153$	• Exploratory factor analysis • Reliability analysis
Study 3	Scale purification	Assessing the factor structure of items retained in Study 2	• Convenience sampling • US student sample • $N = 177$	• Exploratory factor analysis • Reliability analysis
Study 4	Psychometric properties of the scale	Assessing the dimensionality and internal consistency (i.e., convergent validity, divergent validity, and reliability) of the scale	• Stratified sampling followed by systematic random sampling • US adult sample • $N = 163$	• Confirmatory factor analysis • Reliability analysis
Study 5	Cross-cultural validation	Assessing the measurement invariance of the MMM across countries to make cross-country comparisons possible Assessing the psychometric properties of the MMM across countries	• Stratified sampling followed by systematic random sampling • Cross-cultural adult sample • $N = 128$ (Australia) • $N = 301$ (Bosnia-Herzegovina) • $N = 149$ (Egypt) • $N = 148$ (Korea) • $N = 150$ (Turkey)	• Measurement invariance across countries • Confirmatory factor analysis • Reliability analysis
Study 6	Social desirability bias	Assessing if the MMM is susceptible to social desirability bias	• Convenience sampling • US student sample • $N = 123$	• Correlations
Study 7	Nomological validity	Assessing the relationship between the MMM and other related constructs to see if the MMM behaves as expected	• US national quota sampling • US adult sample • $N = 950$	• Correlations

Study 2 was used to assess the factor structure of all 60 items and Study 3 was used to assess the factor structure of the items retained from Study 2. Overall, these two studies helped to decrease the number of items included in our scale by evaluating “the performance of the individual items so that appropriate ones can be identified to constitute the scale” (DeVellis, 1991, p. 80).

Study 2 involved a survey administered to 153 college students enrolled in a marketing class at a major United States university. Ages ranged from 19 to 37, with a mean rounded age of 21. Because three participants failed to respond to many items (i.e., missing values), these three cases were removed from the data set (final $n = 150$).

Before conducting an exploratory factor analysis, consistent with recognized practice (Hair, Black, Babin, & Anderson, 2009), it was decided to retain the items that (a) have a factor loading of 0.40 or better; (b) do not cross load at greater than 0.30; (c) have communality greater than 0.50 after extraction; and (d) have a corrected item-to-total correlation above 0.50. Next, the responses to the 60 materialism items were subjected to principal-axis factor analysis (oblique rotation). Items that satisfied the above initial criteria were retained, leaving seven items for happiness, six items for social recognition, and 10 items for distinctiveness. The reliability of these remaining items was 0.873, 0.839, 0.930, respectively and 0.947 for the materialism motives scale as a whole.

To refine the scale further, data were collected from another student sample in the same university (Study 3). One hundred and seventy-seven participants ($n = 177$) responded to the items retained from Study 2, but again three cases were removed from subsequent analysis for the same missing values reason. The age of remaining respondents ranged from 19 to 32, with a mean age of 21. Items representing each dimension were subjected to separate principal-axis factor analysis with oblique rotation. In other words, three separate factor analyses were conducted. One-factor solutions were obtained with eigenvalues equal to 4.454, 4.064, and 6.665 for happiness, social recognition, and distinctiveness, respectively. Items that had factor loadings less than 0.40, communalities (after extraction) less than 0.50, and corrected item-to-total correlations less than 0.50 were removed. As a result, a nine-item scale (three items per motive) was obtained. At this final stage, only one of the remaining items reflected an item modified from an existing scale (Eastman et al., 1999). The remaining eight items were originally developed by the authors of this article.

3.3 | Psychometric properties of the scale: Study 4

To assess the psychometric properties of the final 9-item scale, we examined the dimensionality of the scale and its internal consistency

through convergent validity, reliability, and divergent validity. For this study, data were collected from an adult sample in a large US city. A stratified sampling technique was used to collect data by dividing the city into neighborhoods based on income levels (i.e., high, medium, and low income). After selecting two sample neighborhoods from each category, systematic random sampling was used to recruit participants. Sixty-one, 50, and 52 questionnaires were collected from low, medium, and high-income neighborhoods, respectively. Of the 163 respondents, 78 (47.9%) were male, 84 (51.5%) were female, and gender was not identified for one respondent. The average rounded age was 39.

To determine the dimensionality of the materialism motives scale, confirmatory factor analyses were conducted to compare four models: a one-dimensional model for which all nine items retained from Study 3 were loaded on a single materialism motives factor (Model 1); a 3-dimensional uncorrelated, first-order model in which each item was loaded on its corresponding motive (three items per motive) where the dimensions were uncorrelated with each other (Model 2); a similar three-dimensional, first-order model in which the dimensions were allowed to correlate with each other (Model 3); and a second-order factor model with one higher order factor (materialism motives) that comprised of all three first-order factors (happiness, social recognition, and distinctiveness; Model 4).

As can be seen in Table 4, the correlated three first-order factor model (Model 3) and the second-order model (Model 4) provided the best fit to the data, while Model 1 and Model 2 did not fit the data well with significant Chi-square values and unacceptable values for other goodness-of-fit statistics (Hu & Bentler, 1999). Because Model 3 and Model 4 were essentially equivalent models, the Chi-square values and other goodness-of-fit statistics were the same. However, the target coefficient (Marsh & Hocevar, 1985) value of 1.0 (calculated by dividing the Chi-square of the first-order model by the Chi-square of the second-order model) indicated that the second-order model explained all the covariance among the first-order factors. Moreover, loadings from the second-order factor (i.e., materialism motives) to first-order factors were significant at the .001 level. Furthermore, the second-order model is consistent with the conceptual definition of materialism motives as discussed above. Therefore, Model 4 was preferred over Model 3.

Table 5 presents the nine-item MMM scale and a summary of test results for convergent validity and scale reliability. Convergent validity exists when AVE exceeds 0.50 and composite reliability of a factor exceeds 0.60 (Fornell & Larcker, 1981). As Table 5 shows, both AVE and composite reliability values met the required criteria for convergent validity. Moreover, all first-order and second-order factor loadings were significant at the .001 level. Coefficient Alphas were also higher than 0.80 for first-order factors and the second-order materialism motives factor (0.86). Corrected item-to-total correlations ranged from 0.637 to 0.770 for happiness, from 0.719 to 0.802 for social recognition, and from 0.697 to 0.849 for distinctiveness. All these results suggest that convergent validity (internal consistency) is present for the MMM.

Next, to establish discriminant validity of the first-order factors, three separate analyses were conducted. First, sequential model comparisons were conducted by fixing the PHI element (correlation between any two first-order factors) to unity (1.0). To compare these different models, Chi-square difference tests were conducted. When the correlation between happiness and social recognition was constrained to 1 (meaning that these two constructs were perfectly correlated and they were not discriminant), the Chi-square difference was significant at the .001 level [$\Delta\chi^2(1, N = 163) = 15.29$]. Similarly, Chi-square tests were significant at the .001 level when the correlation between happiness and distinctiveness was constrained to unity [$\Delta\chi^2(1, N = 163) = 19.19$] and when the correlation between social recognition and distinctiveness was constrained to unity [$\Delta\chi^2(1, N = 163) = 15.27$]. These Chi-square difference tests revealed that the unconstrained model was superior in all cases. Second, the AVE for each construct was greater than the squared correlation (ranging from 0.102 to 0.302) between that construct and any other two constructs (Fornell & Larcker, 1981). Finally, none of the construct correlations were within two standard errors of unity (Anderson & Gerbing, 1988). All these findings provide evidence for the discriminant validity of the first-order constructs.

3.4 | Cross-cultural validation: Study 5

Most measures presented in the consumer research literature seem to have been developed in the United States. However,

Model tested	χ^2	df	p	CFI	GFI	SRMR	RMSEA (CI)	CAIC
Model 1	264.19	27	.001	0.80	0.64	0.150	0.23 (0.21–0.26)	373.88
Model 2	76.63	27	.001	0.96	0.86	0.270	0.11 (0.079–0.13)	186.32
Model 3	17.98	24	.804	1.00	0.96	0.042	0.0 (0.0–0.042)	145.94
Model 4	17.98	24	.804	1.00	0.96	0.042	0.0 (0.0–0.042)	145.94

Note: Model 1, one-dimensional model; Model 2, three-dimensional uncorrelated, first-order model; Model 3, three-dimensional correlated, first-order model; Model 4, second-order model; CFI, Comparative Fit Index; GFI, Goodness of Fit Index; SRMR, standardized root mean square residual; RMSEA (CI), Root Mean Square Error of Approximation (Confidence Interval); CAIC, consistent version of Akaike's Information Criterion; $N = 163$.

TABLE 4 Study 4: Comparison of competing models

TABLE 5 Study 4: First-order loadings and summary of convergent validity analyses

	Happiness					Social recognition					Distinctiveness				
	λ_x	CR	CA	SMR	AVE	λ_x	CR	CA	SMR	AVE	λ_x	CR	CA	SMR	AVE
Summary of tests	0.46 ^a	0.83	0.82		0.63	0.89 ^a	0.88	0.87		0.72	0.69 [†]	0.90	0.89		0.74
Having luxury items is important to a happy life.	0.70			0.50											
To me, it is important to have expensive homes, cars, clothes, and other things. Having these expensive items makes me happy.	0.95			0.89											
Material possessions are important because they contribute a lot to my happiness.	0.71			0.50											
I love to buy new products that affect status and prestige.						0.84			0.71						
I like to own expensive things more than most people because this is a sign of success.						0.89			0.80						
I feel good when I buy expensive things. People think me of as a success.						0.81			0.65						
I enjoy owning expensive things that make people think of me as unique and different.											0.73			0.53	
I usually buy expensive products and brands to make me feel unique and different.											0.91			0.83	
I usually buy expensive things that make me look distinctive.											0.93			0.87	

Note: λ_x = Completely standardized first-order loading; CR = composite reliability; CA = coefficient alpha; SMR = squared multiple correlation; AVE = average variance extracted

[†]Completely standardized second-order loading.

many of these measures have been used in other countries, and the results are assumed to be comparable with the results in the United States (Cheung & Rensvold, 1999; Steenkamp & Baumgartner, 1998). When developing a new measure, cultural differences, and translation issues make it important to assess the structure of the measure and its reliability and validity across different cultures. Accordingly, we collected data from five countries with divergence in language, ethnicity, and religion (Australia, Bosnia-Herzegovina, Egypt, Korea, and Turkey) to evaluate the

measurement invariance and establish the psychometric properties of the MMM across these countries.

The survey questionnaire (that included the MMM along with other measures) was translated to local languages and then back translated to English by bilingual speakers in each country. Then, the same data collection method used in the US adult sample (Study 4) (stratified sampling) was employed to collect data from low, medium, and high-income urban neighborhoods in a key city in each of the specified countries. Sample size, income level, age, and gender

distribution for each country are shown in Table 6. These results reveal desirable variance as expected.

3.4.1 | Testing for measurement invariance

To assess whether the MMM can be used to measure the same attribute in other countries, that is, to assess measurement invariance, we followed the framework suggested by Steenkamp and Baumgartner (1998). First, a baseline model was estimated by running second-order confirmatory factor analyses for each country separately. Table 7 shows that the model fit the data well for each country (Hu & Bentler, 1999).

After establishing baseline models, and again following Steenkamp and Baumgartner (1998, pp. 82), a series of nested tests were conducted at increasingly more stringent levels to: “explore the basic structure of the construct cross-nationally, make quantitative comparisons of means across countries, and examine structural relationships with other constructs cross-nationally.” To determine if the models were invariant across different countries, Chi-square difference tests were conducted (see Table 8). Because Chi-square difference tests, similar to Chi-square tests, tend to result in significant *p*-values due to large sample size effects (Cheung & Rensvold, 1999;

French & Finch, 2006), four other goodness-of-fit statistics (i.e., RMSEA, CAIC, CFI, and NNFI) suggested by Steenkamp and Baumgartner (1998) were also considered for model comparison.

The result of the configural invariance test provided support for the same pattern of fixed and free elements across countries. The Chi square was not significant [$\chi^2(144) = 131.14, p = .771$] and other goodness-of-fit statistics suggested a perfect fit (RMSEA = 0.0, CFI = 1.00, NNFI = 1.0). All first-order and second-order factor loadings were significant at the .01 level in all countries. Fifty three out of 54 within-country completely standardized first-order factor loadings were greater than 0.70 (the factor loading in the case of the exception was 0.62). Out of 18 second-order factor loadings, 16 of them had (within country) completely standardized factor loadings greater than 0.60 (the minimum was 0.46). All these results suggest that the materialism motives scale can be conceptualized in the same way across these six countries.

Researchers typically compare countries based on their mean scores on focal constructs. To conduct mean comparisons across countries, metric and scalar invariance (at least partial) is required (Steenkamp & Baumgartner, 1998). To test for metric invariance, factor loadings are constrained to be the same across countries. In the first step, first-order factor loadings were fixed. Even though CFI and NNFI were still 1.0 and RMSEA was acceptable, the Chi-square

TABLE 6 Study 5: Descriptive statistics for each country

	Australia (N = 128)	Bosnia and Herzegovina (N = 301)	Egypt (N = 149)	Korea (N = 148)	Turkey (N = 150)
Gender					
Men (%)	57 (44.5)	120 (39.9)	54 (36.2)	31 (20.9)	72 (48)
Women (%)	70 (54.7)	180 (59.8)	95 (63.8)	117 (70.1)	76 (50.7)
Missing (%)	1 (0.80)	1 (0.30)	NA	NA	2 (1.3)
Age					
Range	18–81	18–84	18–65	20–61	18–67
Mean	39.36	36.36	33.44	49.31	35.05
Income Level					
Low (%)	31 (24.2)	101 (33.6)	49 (32.9)	49 (33.1)	50 (33.3)
Medium (%)	36 (28.1)	100 (33.2)	50 (33.6)	48 (32.4)	50 (33.3)
High (%)	61 (47.7)	100 (33.2)	50 (33.6)	51 (34.5)	(33.3)

TABLE 7 Study 4 and Study 5: Goodness of fit results for each country

Country	χ^2	df	p	CFI	GFI	SRMR	RMSEA (CI)	PCLOSE
USA	17.98	24	.804	1.00	0.96	0.042	0.0 (0.0–0.042)	0.97
Australia	26.30	24	.338	1.00	0.91	0.032	0.030 (0.0–0.086)	0.66
Bosnia and Herzegovina	25.16	24	.400	1.00	0.97	0.018	0.013 (0.0–0.049)	0.96
Egypt	25.13	24	.399	1.00	0.95	0.021	0.018 (0.0–0.070)	0.80
Korea	33.57	24	.093	0.99	0.94	0.046	0.053 (0.0–0.092)	0.42
Turkey	30.49	24	.169	1.00	0.94	0.043	0.046 (0.0–0.091)	0.51

Abbreviations: CFI, Comparative Fit Index; GFI, Goodness of Fit Index; PCLOSE, *p*-value for test of close fit (RMSEA <0.05); RMSEA (CI), root mean square error of approximation (confidence interval); SRMR, standardized root mean square residual.

TABLE 8 Study 4 and Study 5: Summary of measurement invariance testing

	χ^2	df	RMSEA	CAIC	CFI	NNFI
Configural invariance	131.14	144	.00	1,553.09	1.00	1.00
Full first-order metric invariance	203.93	174	.032	1,388.89	1.00	1.00
Final partial first-order metric invariance	181.85	172	.019	1,382.61	1.00	1.00
Full second-order metric invariance	275.17	187	.054	1,357.44	.99	.99
Final partial second-order metric invariance	219.50	185	.034	1,317.56	1.00	1.00
Initial partial scalar invariance	527.72	228	.089	1,286.10	.97	.98
Final partial scalar invariance	359.11	222	.061	1,164.88	.99	.99
Full factor variance invariance	391.87	237	.063	1,079.14	.99	.99
Final partial factor variance invariance	375.84	236	.060	1,071.01	.99	.99
Initial partial error variance invariance	590.87	279	.082	946.36	.97	.98
Final partial error variance invariance	464.00	269	.066	898.49	.98	.99

Abbreviations: CAIC, consistent akaike information criterion; CFI, Comparative Fit Index; NNFI, Non normed Fit Index; RMSEA, root mean square error of approximation.

difference test was significant. The model CAIC was also less than the model CAIC for the configural model. Accordingly, full first-order metric invariance was not supported. Inspection of modification indices (MI) revealed that two of the loadings (one from Australia, one from Bosnia-Herzegovina) had high MI values (MI = 15.75 and MI = 16.79, respectively). After relaxing the constraints on these two parameters, the model for the partial first-order metric invariance resulted in a better overall fit (see Table 8). Next, second-order factor loadings were constrained to be the same across countries. The Chi-square statistic increased significantly, CFI and NNFI decreased slightly, and RMSEA increased by 0.015; thus, suggesting that full second-order metric invariance was not supported. After examining the MIs, it was decided to relax two second-order loadings for Egypt (MIs were 33.49 and 28.64). The partial second-order metric invariance resulted in lower CAIC and RMSEA values and higher CFI and NNFI values.

Because partial metric invariance, and not full metric invariance, was previously achieved, we could only test for partial scalar invariance (Steenkamp & Baumgartner, 1998). To test for this initial partial scalar invariance, the intercepts of the items that were not metrically invariant were left unconstrained and all the other intercepts were on the model of the partial metric invariance. The model for the initial partial scalar invariance resulted in significantly increased Chi-square, lower values of CFI and NNFI, and higher RMSEA values. After successively relaxing six intercepts with high MI values (one from Bosnia-Herzegovina, three from Egypt, and two from Turkey), partial scalar invariance was achieved with better goodness-of-fit statistics compared to the initial partial scalar invariance. Achieving both the partial metric invariance and the partial scalar variance suggests that mean comparisons can be conducted across different countries.

Materialism and its motives have been studied in a nomological network. It has been suggested that in order to examine the relationships between the focal construct and other constructs, three invariance conditions should be met: full or partial metric invariance, full or partial factor variance invariance (if standardized measures of

association are compared), and full or partial error variance invariance (unless latent variable modeling is used; Steenkamp & Baumgartner, 1998; Vandenberg & Lance, 2000). The invariance of factor variance was tested by constraining factor variances to be the same across countries. The Chi-square for the full factor invariance model was significantly higher than the Chi-square of the model for partial scalar variance [$\Delta\chi^2(15) = 32.76, p < .005$]. Even though the CFI and NNFI values did not change, RMSEA increased slightly. After the factor invariance constraint was removed on the first factor (happiness) for Bosnia-Herzegovina based on MI (15.78), a relatively better fit was achieved with a non-significant Chi-square difference [$\Delta\chi^2(14) = 16.73, p = .27$]. Finally, the initial partial invariance of error variances was tested by relaxing the error variance of the invariant factor (happiness for Bosnia-Herzegovina) and fixing the remaining ones. The Chi-square difference was significant, RMSEA was higher, and CFI and NNFI were lower. After successively relaxing the constraints of 10 error variances (one for Australia, four for Egypt, two for Korea, and three for Turkey), a good fit was achieved: $\chi^2(269) = 464.00, p < .001$; RMSEA = 0.066; Model CAIC = 898.49; CFI = .98; and NNFI = .99. These results suggest final partial error variance was achieved and provided support for the MMM to be used in a nomological network.

3.4.2 | Testing for cross-cultural reliability and internal consistency

Reliability and internal consistency analyses were conducted for each country separately (Table 9). All the values for coefficient Alphas, composite reliabilities, and the AVE values were within acceptable ranges. Analyses were repeated for the pooled data that included data from the United States, Australia, Bosnia-Herzegovina, Egypt, Turkey, and Korea, and those numbers were also within acceptable ranges. These results provided evidence of reliability and internal consistency across different countries.

TABLE 9 Study 4 and Study 5: Cross-cultural reliability and internal consistency

	Happiness			Social recognition			Distinctiveness			Materialism motives
	CA	CR	AVE	CA	CR	AVE	CA	CR	AVE	CA ^a
USA	0.82	0.83	0.63	0.87	0.88	0.72	0.89	0.90	0.74	0.86
Australia	0.86	0.87	0.70	0.90	0.89	0.74	0.87	0.88	0.70	0.94
Bosnia and Herzegovina	0.87	0.87	0.68	0.89	0.89	0.73	0.89	0.89	0.74	0.93
Egypt	0.89	0.89	0.73	0.91	0.91	0.77	0.94	0.94	0.83	0.95
Korea	0.84	0.84	0.64	0.82	0.83	0.62	0.86	0.86	0.67	0.88
Turkey	0.81	0.81	0.59	0.84	0.85	0.66	0.93	0.94	0.84	0.91
Pooled Sample	0.88	0.83	0.62	0.89	0.85	0.66	0.91	0.85	0.65	0.93

Abbreviations: AVE, average variance extracted; CA, coefficient alpha; CR, composite reliability.

^aCoefficient alpha for the whole materialism motives scale is based on nine original items, not dimensions.

3.5 | Social desirability bias: US student sample (Study 6)

Because materialism is usually perceived as a negative value, it is possible that people respond to a materialism motives measure in a socially desirable way by not reporting their true beliefs and/or feelings. This distortion, in turn, might contaminate materialism research (Mick, 1996). Accordingly, it is important to show that our new measure of materialism motives is not susceptible to social desirability (SD) bias. Data collected from 123 students (58.5% male; average age = 22.72) were used to test the MMM's susceptibility to SD bias. A 10-item version of the Marlowe-Crowne scale (Crowne & Marlowe, 1960) used by Richins and Dawson (1992), and the MMM were included in the questionnaire. Correlations with the SD measure were all nonsignificant, suggesting that the MMM is not likely to suffer from SD bias ($r = -.09$, $p = .33$ for happiness; $r = -.02$, $p = .81$ for social recognition; $r = -.01$, $p = .93$ for distinctiveness; $r = -.04$, $p = .70$ for the combined materialism motives scale).

3.6 | Nomological validity (Study 7)

When developing a new scale, it is important to show that "the measure behaves as expected in relation to other constructs" (Churchill, 1979, p. 72). Accordingly, to assess nomological validity, relationships between materialism motives and several related constructs (i.e., Kahle's, 1996 *List of Values* and Diener, Emmons, Larsen, and Griffin's (1985) *Life Satisfaction* measure) were examined. Data collected by Qualtrics from a national quota sample of participants aged 18 years and older ($N = 950$), and, which was representative of the Year 2010 US Census was employed. We outline now the constructs included in Study 7 and our reasoning behind their selection.

With respect to materialism, in addition to the newly created MMM, the MVS developed by Richins and Dawson (1992) was included in the survey. *Acquisition centrality* of the MVS refers to the importance of possessions and their acquisitions for people. In a way, this dimension measures the extent to which people place much emphasis on possessions. That is, people high on acquisition centrality

are more materialistic than people who do not place much emphasis on possessions (i.e., people low on acquisition centrality). Because our MMM measures the motives behind becoming materialistic, we conducted all analyses with people who scored high on materialism (i.e., the acquisition centrality dimension of the MVS). Accordingly, we conducted a median split on the MVS' acquisition centrality dimension to differentiate people who were high and low on materialism. Thereafter, we excluded people who were not materialistic from further analyses and conducted our analyses with people who had high scores on the acquisition centrality construct (original $n = 950$ and following removal of non-materialistic people $n = 405$).

3.6.1 | Personal values

Previous studies have revealed important relationships between personal values and materialism. For instance, Richins and Dawson (1992) showed that materialistic people tend to value financial security more and warm relationships with others less, compared to non-materialistic people. Burroughs and Rindfleisch (2002) showed that materialism is negatively related to collective-oriented values (i.e., community values, family values, and religious values). Based on this line of research, we believe that materialism motives will be more relevant to some personal values than others. We will explain further below.

In Study 7, we used the List of Values (Kahle, 1996) to measure personal values. Specifically, participants were asked to rate nine values (i.e., sense of belonging, excitement, warm relationships with others, self-fulfillment, being well-respected, fun and enjoyment in life, security, self-respect, and a sense of accomplishment) on 9-point scales, from "important to me" to "most important to me." The List of Values are often categorized into three groups: internal values, external values, and interpersonal values (Gurel-Atay, Xie, Chen, & Kahle, 2010). Internal values (i.e., self-fulfillment, self-respect, and a sense of accomplishment) are usually fulfilled internally, without depending on others. External values (i.e., a sense of belonging, being well-respected, security) are fulfilled through others. Interpersonal values (i.e., excitement, warm relationships with others, fun and enjoyment in life) are fulfilled interactively with others. Based on this

categorization, we hypothesize that internal values (self-fulfillment, self-respect, sense of accomplishment) will be highly correlated with the distinctiveness motive of materialism more so than external and interpersonal values. This may be the case because those who seek distinctiveness through material acquisition and possessions are likely to place much value on self-fulfillment, self-respect, and sense of accomplishment. For example, Ruvio, Hirschman, and Belk (2014) noted an association between status competition and the need for distinctiveness. Furthermore, Vigneron and Johnson (1999), in a review of the literature on prestige-seeking consumer behavior, provided evidence linking the exclusivity of prestige goods and the need for distinctiveness. Such evidence points to the likelihood that internal values are closely associated with the distinctiveness materialism motive.

In contrast, external values (sense of belonging, being well-respected, security, etc.) will be highly correlated with the social recognition motive of materialism. Shrum et al. (2013) conceptualized materialism as identity goal pursuits. Acquisition and possession of material goods is motivated by the extent to which consumers engage in identity maintenance through symbolic consumption—acquisition and possession of materials goods that reflect reference group membership.

Finally, we hypothesize that interpersonal values (excitement, warm relationships with others, fun and enjoyment in life, etc.) will be highly correlated with the happiness motive of materialism. Some evidence already points to the relationship between materialism and personal values pertaining to warm relationships with others (Richins & Dawson, 1992), fun and enjoyment (Keng, Jung, Juana, & Wirtz, 2000), and excitement (Keng et al., 2000).

Although all three categories of values (i.e., internal values, external values, and interpersonal values) revealed significant correlations with all materialism motives, results supported our hypotheses regarding the internal and external values. More specifically, as expected, internal values revealed its highest correlation with the distinctiveness motive ($r = .101, p = .002$) and external values had its highest correlation with the social recognition motive ($r = .246, p < .001$). For interpersonal values, we expected to see the highest correlations with the happiness motive; however, interpersonal values revealed its highest correlation with the social recognition motive ($r = .236, p < .001$). Indeed, interpersonal values had the lowest correlation with the happiness motive ($r = .199, p < .001$). We should also note that, as can be seen from

Table 10, the correlations between categories of values and materialism motives were all close to each other in terms of magnitude.

3.6.2 | Life satisfaction

Research on materialism predominantly indicates materialism is negatively associated with life satisfaction. For instance, Ahuvia and Wong (2002) showed that materialism, measured through both Belk's (1984) materialism scale and Richins and Dawson's (1992) MVS, was negatively correlated with fun and enjoyment in life, relationships with friends, and satisfaction with standard of living. Offering a deeper insight into the nature of the relationship, Burroughs and Rindfleisch (2002), suggested that materialism has a negative impact on quality of life only when people have conflicting values (e.g., when materialistic people also hold religious values). Articulating this point, Sirgy et al. (2013) showed that materialistic people who evaluate their standard of living using reality-based expectations (i.e., ability expectations) may feel economically motivated, and this economic motivation may contribute positively to their life satisfaction. Conversely, materialistic people who evaluate their standard of living using fantasy-based expectations (i.e., ideal expectations) may feel dissatisfied with their standard of living, which in turn spills over to life dissatisfaction. And most recently, Dittmar et al.'s (2014) meta-analysis recognized that materialism is negatively related to both cognitive and affective well-being (as well as most other indicators of well-being).

Accordingly, we believe that people who have different terminal values, or motives, to be materialistic will have different experiences with life satisfaction. More specifically, based on previous research discussed above, we hypothesize a negative correlation between the happiness motive of materialism and life satisfaction. We believe that materialistic people motivated by happiness are likely to invest more time and energy engaged in materialistic pursuits (i.e., the material life such as shopping) and less time and energy in other life domains that significantly contribute to life satisfaction such as social life, family life, leisure life, community life, spiritual life, among others (Kasser & Ryan, 1993). Because people who value social recognition tend to work for longer hours and earn more money (Richins & Dawson, 1992), they may experience increased levels of satisfaction with work life, which in turn, may lead to increased life satisfaction. Thus, we expect a positive correlation between the social recognition motive of materialism and life satisfaction.

TABLE 10 Study 7: Correlation of materialism motives and values

	Internal values	External values	Interpersonal values	Happiness	Social recognition	Distinctiveness
Internal values	1.00					
External values	0.678*	1.00				
Interpersonal values	0.640*	0.738*	1.00			
Happiness	0.075**	0.208*	0.199*	1.00		
Social recognition	0.098**	0.246*	0.236*	0.826*	1.00	
Distinctiveness	0.101**	0.199*	0.207*	0.786*	0.854*	1.00

* $p < .005$; ** $p < .01$.

TABLE 11 Study 8: Correlation of materialism motives, instrumental materialism, and life satisfaction

	Happiness	Social recognition	Distinctiveness	Instrumental materialism	Life satisfaction
Happiness	1.00				
Social recognition	0.826*	1.00			
Distinctiveness	0.786*	0.854*	1.00		
Instrumental materialism	0.591*	0.525*	0.501*	1.00	
Life satisfaction	0.011	0.121*	0.104*	−0.153*	1.00

* $p < .001$.

We also hypothesize a positive correlation between the distinctiveness motive of materialism and life satisfaction. For example, research has demonstrated that material possessions are widely used to symbolize one's distinctiveness as "being cool" (Rahman & Cherrier, 2010). Those who are successful in reflecting their "coolness" to others are likely to experience positive emotions; and those who experience consistent positive emotions over time are likely to experience higher levels of subjective well-being (Diener, 1994).

The satisfaction with life scale developed by Diener et al. (1985) was used to measure life satisfaction. Five 9-point items (1 = strongly disagree; 9 = strongly agree) were used. As expected, and as can be seen from Table 11, positive and significant correlations were found between life satisfaction and the social recognition motive ($r = .121$, $p < .001$) and life satisfaction and the distinctiveness motive ($r = .104$, $p < .001$). However, the correlation between the happiness motive and life satisfaction was not significant ($r = .011$, $p = .73$).

We also tested the possible mediated relationships between the instrumental materialism (i.e., state of materialism as measured by the acquisition centrality dimension of the MVS), motives (i.e., terminal values) and life satisfaction, by conducting a blocked multiple regression analysis. Instrumental materialism (acquisition centrality) was entered in the first step and three materialism motives were entered in the second step. The inclusion of three materialism motives in the regression resulted in a significant increase in explained variance with, $F_{\text{increment}}(3, 945) = 22.415$; $p < .001$; $\Delta R^2 = .065$. The state of materialism (i.e., acquisition centrality) had a significant negative impact on life satisfaction at both the first step ($\beta = -.153$; $t = -4.779$; $p < .001$) and the second step ($\beta = -.269$; $t = -6.971$; $p < .005$). Happiness had a significant negative effect on life satisfaction ($\beta = -.173$; $t = -2.869$; $p < .005$) while both social recognition ($\beta = .311$; $t = 4.567$; $p < .001$) and distinctiveness ($\beta = .110$; $t = 1.772$; $p < .077$) had positive effects. Overall, in the second step, 8.8% of the variance in life satisfaction was explained by the variables in the model ($F(4, 949) = 22.907$; $MS_{\text{res}} = 3.506$; $p < .001$; $R^2 = .088$; and adjusted $R^2 = .085$).

4 | DISCUSSION

Previously, materialism has been defined either as a trait (Belk, 1984) or a value (Richins & Dawson, 1992). Like Richins and Dawson (1992), we also conceptualize materialism as a value. We, however, differentiate between terminal and instrumental values (Rokeach, 1973) and

demonstrate that materialism is an instrumental value used to attain three terminal values: happiness, social recognition, and distinctiveness. It is important to measure the different motives underlying materialism to understand its impact on consumers' well-being. Because previous materialism scales do not measure these three motives of materialism adequately, we set to develop our MMM. Six separate studies conducted in the United States provided evidence for dimensionality, internal consistency, discriminant validity, nomological validity, and non-susceptibility to social desirability bias. Data collected in five other countries were used to test measurement invariance. The results suggest that the new measure can be used in other countries with confidence. Accordingly, we believe that the MMM will help researchers conduct more reliable and valid materialism-related research both in the United States and elsewhere.

With respect to the nomological validity of the MMM (i.e., the potential impact of materialism on consumer well-being), we conclude that our data provided some support in relation to personal values and life satisfaction. Specifically, we demonstrated a negative relationship between the state of materialism (as measured by acquisition centrality of the MVS) and an established measure of life satisfaction. Moreover, we established that this negative relationship is mediated mostly by the happiness motive of materialism, not the other two motives (distinctiveness and social recognition). These findings altogether provided additional support for the construct validity of the MMM.

4.1 | Implications

The conceptualization of materialism as an instrumental value and the MMM can assist in the formulation of public policy. As previously mentioned, materialistic consumption is one of the paths, or modes of behavior, to attain desirable end-states (i.e., happiness, social recognition, and distinctiveness). The MMM conceptualization suggests that, to avoid negative feelings associated with materialism (such as dissatisfaction with material life), people can either choose other paths toward the attainment of these three terminal values, or they can change their value structure by not endorsing these three values as ultimate goals in life. Because values are hard to change, however, it is more reasonable to evaluate alternative ways to attain the aforementioned terminal values. Consumer education programs can be designed to help materialistic people find other paths toward their desired end-goals. In addition, public policy makers can use the MMM

to identify the main drivers of becoming materialistic and encourage people to use these drivers in more adaptive ways. For instance, a person who has high need for distinctiveness can be encouraged to evaluate their "self" much more so than their material life. Doing so, should enhance life satisfaction judgments. In other words, consumer education programs can help people to re-evaluate their priorities among different life domains by identifying the main motives of materialism.

Moreover, identifying the main motives of materialism can help marketers and policy makers effectively design and deliver goods and services in ways that enhance life satisfaction. This could include goods and services that support a person's need for relatedness with others (Deci & Ryan, 2000), which similarly satisfy the needs for distinctiveness and social recognition. Finally, future research can test alternative paths to help public policy makers design education programs to alleviate possible detrimental effects of materialism on life satisfaction.

4.2 | Limitations and future research

In spite of the extensiveness of our work and resultant findings, we believe more work is needed to further establish construct validity of the MMM. This study focused on only three motives of materialism. Future studies can examine other motives of materialism and their well-being consequences (cf. Shrum et al., 2013; Srivastava et al., 2001). In addition, future empirical studies can examine the effect of MMM on variables affecting well-being including frequency of social comparison (Sirgy, 1998), economic motivation, and expected future life satisfaction (Sirgy et al., 2019).

Because validity testing of a newly established measure is an ongoing process, we encourage materialism researchers to use the MMM to test theoretical relationships between materialism, materialism motives, and other constructs. For example, future research could test the nomological validity of the MMM by relating the distinctiveness motive of materialism with well-developed measures of the need for distinctiveness in a consumer context (e.g., Tian et al., 2001). One would assume that those who pursue material acquisitions and possessions to achieve distinctiveness would rate highly on measures of need for distinctiveness. Similarly, individuals scoring high on the social recognition motive of materialism should score highly on measures that capture the need for social recognition as a personality trait (e.g., Kishton & Widaman, 1994). Furthermore, individuals scoring high on the happiness motive of materialism should score highly on measures of need for fun and excitement (e.g., Zuckerman, Kolin, Price, & Zoob, 1964). Moreover, we encourage the use of MMM in cross-cultural studies. Results from these studies should help us continue with the testing of measurement invariance of the MMM across different countries. Doing so can help further establish the validity of the MMM.

This study examined the predictive validity of MMM in relation to personal values and overall life satisfaction. Yet, materialistic consumers may have multiple motives simultaneously and we know little

about the interrelationship among the multiple motives (e.g., whether they complement each other versus supplement each other) in affecting these criterion variables. Future studies can further examine the role of various materialism motives in affecting the relationship between materialism and life satisfaction. In this study, we found the distinctiveness motive and social recognition motive to be positive mediators between materialism and life satisfaction; whereas, as hypothesized, the happiness motive was a negative mediator. This means that past research that has documented a negative relationship between materialism and life satisfaction (e.g., Burroughs & Rindfleisch, 2002; Dittmar et al., 2014; Sirgy et al., 2012) can be attributed mostly to the happiness motive of materialism, not the distinctiveness nor success motive. This phenomenon has been tested more recently (Sirgy et al., 2019); and as such, these collective findings provide further support of the construct validity of the MMM. One may argue that those motivated by happiness in their pursuit of material acquisitions are likely to have unrealistically high expectations about their standard of living (Sirgy et al., 2013). Accordingly, future studies should also formally develop and test a theoretical model linking MMM with life satisfaction that could be extended to include variables such as frequency of social comparison (Sirgy, 1998) and economic motivation (Sirgy et al., 2019). Potential mediators may include expectations of material life, actual evaluation of material life, impact on self, and satisfaction of basic psychological needs, among others.

Focusing on the positive mediators (distinctiveness and social recognition), future research could test the notion that the positive mediation effect of the distinctiveness motive between materialism and life satisfaction may be moderated by those who are rated highly on independent self-construal (Markus & Kitayama, 1991; Singelis, 1994). Conversely, the positive mediation effect of the social recognition motive between materialism and life satisfaction may be moderated by those who are rated highly on interdependent self-construal.

In this study, we found a positive and significant relationship between the distinctiveness motive and internal personal values and also between the social recognition motive and external personal values. One can argue that the positive relationship between the distinctiveness motive and internal values is more pronounced for individuals in individualistic cultures (i.e., individuals with idiocentric tendencies and/or independent self-construal). One can also argue that the relationship between social recognition motive and external values is more pronounced for allocentric people (Triandis, Leung, Villareal, & Clack, 1985) and people with interdependent self-construal (Markus & Kitayama, 1991; Singelis, 1994). This could likewise be explored in future studies.

We conducted a separate study (Study 6) to ascertain whether social desirability is a threat to the model. One can argue that social desirability is potentially a substantial threat to respondents in collectivistic cultures and for people with a high-power distance. Although we included both the individualistic and collectivistic countries in our cross-cultural validation study, we did not include the Social Desirability Bias measure in our data collection. Thus, it is recommended that the measure of social desirability be included in future studies testing the predictive validity of MMM.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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REFERENCES

- Abosag, I., Ramadan, Z. B., Baner, T., & Jin, Z. (2019). Customers' need for uniqueness theory versus brand congruence theory: The impact on satisfaction with social network sites. *Journal of Business Research, online*, 117, 862–872. <https://doi.org/10.1016/j.jbusres.2019.03.016>
- Ahuvia, A. C., & Wong, N. Y. (2002). Personality and values-based materialism: Their relationship and origins. *Journal of Consumer Psychology*, 12(4), 389–402. <https://doi.org/10.1207/S15327660260382414>
- Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Belk, R. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measure of happiness. In T. Kinnear (Ed.), *Advances in consumer research* (pp. 291–297). Provo, UT: Association of Consumer Research.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139–168. <https://doi.org/10.1086/209154>
- Benmoyal-Bouzaglo, S., & Moschis, G. P. (2010). Effects of family structure and socialization on materialism: A life course study in France. *Journal of Marketing Theory and Practice*, 18(1), 53–69. <https://doi.org/10.2753/MTP1069-6679180104>
- Blanton, H., & Christie, C. (2003). Deviance regulation: A theory of action and identity. *Review of General Psychology*, 7(2), 115–149. <https://doi.org/10.1037/1089-2680.7.2.115>
- Braun, O. L., & Wicklund, R. A. (1989). Psychological antecedents of conspicuous consumption. *Journal of Economic Psychology*, 10(2), 161–187. [https://doi.org/10.1016/0167-4870\(89\)90018-4](https://doi.org/10.1016/0167-4870(89)90018-4)
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17(5), 475–482. <https://doi.org/10.1177/0146167291175001>
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting value perspectives. *Journal of Consumer Research*, 29(3), 348–370. <https://doi.org/10.1086/344429>
- Carver, C. S., & Baird, E. (1998). The American dream revisited: Is it what you want or why you want it that matters? *Psychological Science*, 9(4), 289–292. <https://doi.org/10.1111/1467-9280.00057>
- Casas, F., González, M., Figuer, C., & Coenders, G. (2004). Subjective well-being, values and goal achievement. In *Quality-of-life research on children and adolescents* (pp. 123–141). Dordrecht, the Netherlands: Springer. https://doi.org/10.1007/978-1-4020-2312-5_7
- Celsi, R. L., Rose, R. L., & Leigh, T. W. (1993). An exploration of high-risk leisure consumption through skydiving. *Journal of Consumer Research*, 20(1), 1–23. <https://doi.org/10.1086/209330>
- Cheung, G., & Rensvold, R. B. (1999). Testing factorial invariance across groups: A reconceptualization and proposed new method. *Journal of Management*, 25(1), 1–27. <https://doi.org/10.1177/014920639902500101>
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73. <https://doi.org/10.2307/3150876>
- Churchill, G. A., & Moschis, G. P. (1979). Television and interpersonal influences on adolescent consumer learning. *Journal of Consumer Research*, 6(1), 23–35. <https://doi.org/10.1086/208745>
- Clark, I., & Micken, K. S. (2002). An exploratory cross-cultural analysis of the values of materialism. *Journal of International Consumer Marketing*, 14(4), 65–89. https://doi.org/10.1300/J046v14n04_05
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349–354. <https://doi.org/10.1037/h0047358>
- Csikszentmihalyi, M., & Rochberg-Halton, E. (1981). *The meaning of things*. Cambridge: Cambridge University Press.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- DeVellis, R. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31(2), 103–157. <https://doi.org/10.1007/BF01207052>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107(5), 879–924. <https://doi.org/10.1037/a0037409>
- Durges, J. F., O'Connor, G. C., & Veryzer, R. W. (1996). Observations: Translating values into product wants. *Journal of Advertising Research*, 36(6), 90–102.
- 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), 41–52. <https://doi.org/10.1080/10696679.1999.11501839>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- French, B. F., & Finch, H. W. (2006). Confirmatory factor analytic procedures for the determination of measurement invariance. *Structural Equation Modeling*, 13(3), 378–402. https://doi.org/10.1207/s15328007sem1303_3
- Goldberg, M., Gorn, G., Peracchio, L., & Bamossy, G. (2003). Understanding materialism among youth. *Journal of Consumer Psychology*, 13(3), 278–288. https://doi.org/10.1207/S15327663JCP1303_09
- Gurel-Atay, E., Xie, G., Chen, J., & Kahle, L. R. (2010). Changes in social values in the United States, 1976–2007: 'Self-respect' is on the upswing as 'sense of belonging' becomes less important. *Journal of Advertising Research*, 50(1), 57–67. <https://doi.org/10.2501/S002184991009118X>
- Hair, J. F., Black, W. J., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis*. Upper Saddle River, New York: Prentice Hall.
- Haller, M., & Hadler, M. (2006). How social relations and structures can produce happiness and unhappiness: An international comparative analysis. *Social Indicators Research*, 75(2), 169–216. <https://doi.org/10.1007/s11205-004-6297-y>
- Han, Y. J., Nunes, J. J., & Dreze, X. (2010). Signaling status with luxury goods: The role of brand prominence. *Journal of Marketing*, 74(4), 15–30. <https://doi.org/10.1509/jmk.74.4.015>
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967–988. <https://doi.org/10.1177/014920639502100509>

- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Hudders, L., & Pandelaere, M. (2012). The silver lining of materialism: The impact of luxury consumption on subjective well-being. *Journal of Happiness Studies*, 13(3), 411–437. <https://doi.org/10.1007/s10902-011-9271-9>
- Kahle, L. R. (1983). *Social values and social change: Adaptation to life in America*. New York, N.Y.: Praeger.
- Kahle, L. R. (1996). Social values and consumer behavior: Research from the list of values. In C. Seligman, J. M. Olson, & M. P. Zanna (Eds.), *The psychology of values: The Ontario symposium* (pp. 135–152). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- Kahle, L. R., Gurel-Atay, E., Xie, H., & Lee, C. (2014). *A blessing and a curse: Consumer well-being*. Washington, DC: American Psychological Association Convention Society for Consumer Research (Division 23).
- Kasser, T., & Ahuvia, A. (2001). Materialistic values and well-being in business students. *European Journal of Social Psychology*, 32(1), 137–146. <https://doi.org/10.1002/ejsp.85>
- 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. <https://doi.org/10.1037/0022-3514.65.2.410>
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22(3), 280–287. <https://doi.org/10.1177/0146167296223006>
- Keng, K. A., Jung, K., Juana, 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. <https://doi.org/10.1023/A:1006956602509>
- King, L. A., & Napa, C. K. (1998). What makes a life good? *Journal of Personality and Social Psychology*, 75(1), 156–165. <https://doi.org/10.1037/0022-3514.75.1.156>
- Kishton, J. M., & Widaman, K. F. (1994). Unidimensional versus domain representative parcelling of questionnaire items: An empirical example. *Educational and Psychological Measurement*, 54(3), 757–765. <https://doi.org/10.1177/0013164494054003022>
- Limon, Y., Kahle, L., & Orth, U. (2009). Package design as a communications vehicle in cross-cultural values shopping. *Journal of International Marketing*, 17(1), 30–57. <https://doi.org/10.1509/jimk.17.1.30>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. <https://doi.org/10.1037/0033-295X.98.2.224>
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97(3), 562–582. <https://doi.org/10.1037/0033-2909.97.3.562>
- Mick, D. G. (1996). Are studies of dark side variables confounded by socially desirable responding? The case of materialism. *Journal of Consumer Research*, 23(2), 106–119. <https://doi.org/10.1086/209470>
- Mitchell, T. R., & Mickel, A. E. (1999). The meaning of money: An individual-difference perspective. *Academy of Management Review*, 24(3), 568–578. <https://doi.org/10.5465/amr.1999.2202138>
- Mowen, J. C., & Spears, N. (1999). Understanding compulsive buying among college students: A hierarchical approach. *Journal of Consumer Psychology*, 8(4), 407–430. https://doi.org/10.1207/s15327663jcp0804_03
- Nickerson, C., Schwarz, N., Diener, E., & Kahneman, D. (2003). Zeroing in on the dark side of the American dream: A closer look at the negative consequences of the goal for financial success. *Psychological Science*, 14(6), 531–536. <https://doi.org/10.1046/j.0956-7976.2003.psci.1461.x>
- Packard, V. (1959). *The status seekers*. New York: David McKay Company, Inc.
- Rahman, K., & Cherrier, H. (2010). Correlates of cool identity: Humor, need for distinctiveness, materialism, status concern and brand consciousness. In M. C. Campbell, J. Inman, & R. Pieters (Eds.), *Advances in consumer research* (pp. 886–888). Duluth, MN: Association for Consumer Research.
- Richins, M., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19(3), 303–316. <https://doi.org/10.1086/209304>
- Robak, R. W., Chiffreller, S. H., & Zappone, M. C. (2007). College students' motivations for money and subjective well-being. *Psychological Reports*, 100(1), 147–156. <https://doi.org/10.2466/pr0.100.1.147-156>
- Roberts, J. A., Tanner, J. F., & Manolis, C. (2005). Materialism and the family structure-stress relation. *Journal of Consumer Psychology*, 15(2), 183–190. https://doi.org/10.1207/s15327663jcp1502_10
- Rochberg-Halton, E. (1986). *Meaning and modernity: Social theory in the pragmatic attitude*. Chicago, IL: University of Chicago Press.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Ruvio, A., Hirschman, E., & Belk, R. (2014). Conformity, uniqueness and social class mobility: Consumer self-identity in the yard. In J. Cotte & S. Wood (Eds.), *Advances in consumer research* (pp. 318–323). Duluth, MN: Association for Consumer Research.
- Satorra, A. (2000). Scaled and adjusted restricted tests in multi-sample analysis of moment structures. In R. D. H. Heijmans, D. S. G. Pollock, & A. Satorra (Eds.), *Innovations in multivariate statistical analysis* (pp. 233–247). Advanced Studies in Theoretical and Applied Econometrics. Boston, MA: Springer. https://doi.org/10.1007/978-1-4615-4603-0_17
- Schwartz, S. H., & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of Research in Personality*, 38(3), 230–255. [https://doi.org/10.1016/S0092-6566\(03\)00069-2](https://doi.org/10.1016/S0092-6566(03)00069-2)
- Shim, S., & Eastlick, M. A. (1998). The hierarchical influence of personal values on mall shopping attitude and behavior. *Journal of Retailing*, 74(1), 139–152. [https://doi.org/10.1016/S0022-4359\(99\)80091-8](https://doi.org/10.1016/S0022-4359(99)80091-8)
- Shrum, L. J., Burroughs, J. E., & Rindfleisch, A. (2005). Television's cultivation of material values. *Journal of Consumer Research*, 32(3), 473–479. <https://doi.org/10.1086/497559>
- Shrum, L. J., Wong, N., Arif, F., Chugani, S. K., Gunz, A., Lowrey, T. M., ... Scott, K. (2013). Reconceptualizing materialism as identity goal pursuits: Functions, processes, and consequences. *Journal of Business Research*, 66(8), 1179–1185. <https://doi.org/10.1016/j.jbusres.2012.08.010>
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construal. *Personality and Social Psychology Bulletin*, 20(5), 580–591. <https://doi.org/10.1177/0146167294205014>
- Sirgy, J. M., Gurel-Atay, E., Webb, D., Cicic, M., Husic-Mehmedovic, M., Ekici, A., ... Johar, J. S. (2013). Is materialism all that bad? Effects on satisfaction with material life, life satisfaction, and economic motivation. *Social Indicators Research*, 110(1), 349–366. <https://doi.org/10.1007/s11205-011-9934-2>
- Sirgy, M. J. (1998). Materialism and quality of life. *Social Indicators Research*, 43(3), 227–260. <https://doi.org/10.1023/A:1006820429653>
- Sirgy, M. J., Gurel-Atay, E., Webb, D., Cicic, M., Husic, M., Ekici, A., ... Johar, J. S. (2012). Linking advertising, materialism, and life satisfaction. *Social Indicators Research*, 107(1), 79–101. <https://doi.org/10.1007/s11205-011-9829-2>
- Sirgy, M. J., Yu, G. B., Lee, D.-J., Joshanloo, M., Bosnjak, M., Jiao, J., ... Grzeskowiak, S. (2019). The dual model of materialism: Success versus happiness materialism on present and future life satisfaction. *Applied Research in Quality of Life*. <https://doi.org/10.1007/s11482-019-09763-8>
- Snyder, C. R. (1992). Product scarcity by need for uniqueness interaction: A consumer catch-22 carousel? *Basic and Applied Social Psychology*, 13(1), 9–24. https://doi.org/10.1207/s15324834basps1301_3
- Snyder, C. R., & Fromkin, H. L. (1977). Abnormality as a positive characteristic: The development and validation of a scale measuring need for uniqueness. *Journal of Abnormal Psychology*, 86(5), 518–527. <https://doi.org/10.1037/0021-843X.86.5.518>
- Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It's not the money, it's the motives. *Journal of Personality*

- and *Social Psychology*, 80(6), 959–971. <https://doi.org/10.1037/0022-3514.80.6.959>
- Steenkamp, J. B., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, 25(1), 78–90. <https://doi.org/10.1086/209528>
- Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior*, 13, 197–202. <https://doi.org/10.1002/job.4030130209>
- Thyroff, A., & Kilbourne, W. E. (2018). Self-enhancement and individual competitiveness as mediators in the materialism/consumer satisfaction relationship. *Journal of Business Research*, 92, 189–196. <https://doi.org/10.1016/j.jbusres.2018.07.023>
- Tian, K., Bearden, W., & Hunter, G. (2001). Consumers' need for uniqueness: Scale development and validation. *Journal of Consumer Research*, 28(1), 50–66. <https://doi.org/10.1086/321947>
- Triandis, H. C., Leung, K., Villareal, M. J., & Clack, F. I. (1985). Allocentric versus idiocentric tendencies: Convergent and discriminant validation. *Journal of Research in Personality*, 19(4), 395–415. [https://doi.org/10.1016/0092-6566\(85\)90008-X](https://doi.org/10.1016/0092-6566(85)90008-X)
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4–70. <https://doi.org/10.1177/109442810031002>
- Vigneron, F., & Johnson, L. W. (1999). A review and a conceptual framework of prestige-seeking consumer behavior. *Academy of Marketing Science Review*, 1(1), 1–15.
- Ward, S., & Wackman, D. B. (1971). Family and media influences on adolescent consumer learning. *American Behavior Scientist*, 14(3), 415–427. <https://doi.org/10.1177/000276427101400315>
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, California: Sage Publications.
- Wong, N., Rindfleisch, A., & Burroughs, J. E. (2003). Do reverse-worded items confound measures in cross-cultural consumer research? The case of the material values scale. *Journal of Consumer Research*, 30(1), 72–91. <https://doi.org/10.1086/374697>
- Zuckerman, M., Kolin, E. A., Price, L., & Zoob, I. (1964). Development of a sensation-seeking scale. *Journal of Consulting Psychology*, 28(6), 477–498. <https://doi.org/10.1037/h0040995>

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