Materialistic Values and Goals

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Abstract

Materialism comprises a set of values and goals focused on wealth, possessions, image, and status. These aims are a fundamental aspect of the human value/goal system, standing in relative conflict with aims concerning the well-being of others, as well as one's own personal and spiritual growth. Substantial evidence shows that people who place a relatively high priority on materialistic values/goals consume more products and incur more debt, have lower-quality interpersonal relationships, act in more ecologically destructive ways, have adverse work and educational motivation, and report lower personal and physical well-being. Experimentally activating materialistic aims causes similar outcomes. Given these ills, researchers have investigated means of decreasing people's materialism. Successful interventions encourage intrinsic/self-transcendent values/goals, increase felt personal security, and/or block materialistic messages from the environment. These interventions would likely be more effective if policies were also adopted that diminished contemporary culture's focus on consumption, profit, and economic growth.

Contents

I. MEASUREMENT AND CONCEPTUALIZATION OF MATERIALISM

The exorbitant cornucopia of consumerism that characterizes the twenty-first century may lead some to conclude that materialism is a relatively recent development in human experience. Yet in every historical age and corner of the world, philosophers and religious leaders, economists and politicians, and playwrights and novelists have identified materialism, greed, avarice, and financial self-interest as basic human characteristics. Many have decried a focus on money and possessions in life, claiming that a materialistic outlook undermines deep spirituality, satisfying relationships, and much else that makes life worth living (for a review, see Belk 1983). Others, in contrast, have proposed that economic and social systems that encourage this very human desire hold the most promise for maximizing material wealth (Smith 1776/1976) and individual freedom (Rand 1967).

Despite its prominent place in human experience, the scientific study of materialism long languished on the sidelines in psychology; the scant attention it did receive came primarily from psychodynamic and humanistic/existential theorists (e.g., Fromm 1976). Eventually, in the mid-1980s and early 1990s, consumer researchers and psychologists began conducting quantitative, empirical projects on materialism, developing tools to measure the construct and theories about its nature.

The earliest sophisticated attempt to measure materialism (Belk 1985) conceived of the construct as a trait composed of three facets: possessiveness, nongenerosity, and envy. More recent theoretical statements have proposed that materialism is an aspect of identity (Dittmar 2008, Shrum et al. 2013). Most empirical research on materialism, however, has followed Richins & Dawson (1992) and Kasser & Ryan (1993, 1996) by measuring and conceiving of materialism as a value or goal that reflects the extent to which an individual believes that it is important to acquire money and possessions, as well as to strive for the related aims of an appealing image and

high status/popularity, both of which are frequently expressed via money and possessions.[1] Understanding materialism as a value/goal allows researchers to investigate hypotheses about both a person's relatively stable disposition toward materialism (as is shown next and in Section II) and what occurs when materialistic values/goals are momentarily activated in a person's mind (as is shown in Section III).

Probably the most widely used device to assess materialism at a dispositional level is Richins & Dawson's (1992) Material Values Scale (MVS; for a revised, shortened scale, see Richins 2004). The MVS consists of three subscales: the centrality of acquisition to a person's life (e.g., "I like a lot of luxury in my life") and the beliefs that acquisition provides happiness ("I'd be happier if I could afford to buy more things") and signifies success (e.g., "The things I own say a lot about how well I'm doing in life"). Variations on this measure have been used in many studies and have inspired materialism measures for children and adolescents (e.g., Goldberg et al. 2003, Kasser 2005, Opree et al. 2011). Another widely used means of assessing materialistic aims is the Aspiration Index (AI; Kasser & Ryan 1993, 1996), on which participants rate the importance of a variety of goals. Materialism is assessed by calculating the relative centrality (Rokeach 1973) of extrinsic goals for financial success ("I will be financially successful"), image ("My image will be one others find appealing") and popularity ("I will be admired by many people") in comparison to nonmaterialistic goals. Other value- and goal-based approaches in this tradition ask study participants to rank-order guiding principles in life (Kasser & Ryan 1993, 1996) or to rate how well self-generated personal strivings help them progress toward more or less materialistic possible futures (Sheldon & Kasser 1995, 1998).

Value and Goal Systems

Since Rokeach's (1973) publication of *The Nature of Human Values*, most value researchers have agreed that any particular value is part of a larger, dynamic system. Schwartz's (1992) work, conducted in dozens of nations around the world, shows that values are organized in a circular, or "circumplex," fashion, such that every value is consistent with some values, in conflict with other values, and orthogonal to still other values. Thus, if materialism is indeed a value, it should have a predictable place in the human value system.

Burroughs & Rindfleisch (2002) were the first to explore this issue empirically. They administered Schwartz's value survey, along with the MVS and supplemental assessments of religious, family, and community values, to 373 US adults. Multidimensional scaling analyses yielded the results presented in **Figure 1**; values nearby each other are psychologically consistent, those opposite each other are in conflict, and those approximately 90° apart are orthogonal. As predicted, materialism fell within the cluster of self-enhancement values for power and achievement; it was also nearby values for hedonism and stimulation. At the same time, materialism stood in relative conflict with collective or self-transcendent values for religiosity, benevolence, family, community, universalism, and conformity. Such results support the age-old critique that materialism orients people toward superficial satisfactions and conflicts with caring about the broader world, one's family, and/or religious pursuits. Studies in Turkey, Canada, and Germany have yielded parallel findings, particularly regarding the positive association of materialism with self-enhancement values (Karabati & Cemalcilar 2010, Kilbourne et al. 2005).

[1]Materialism has another standard meaning in philosophy, i.e., the belief that all of the world can be explained through recourse to tangible matter and objective laws. The current review does not consider this form of materialism, nor does it focus on the distinction between "having" and "being" (Van Boven & Gilovich 2003), a conceptualization focused on how one chooses to spend one's money rather than on the desire for money and possessions per se.

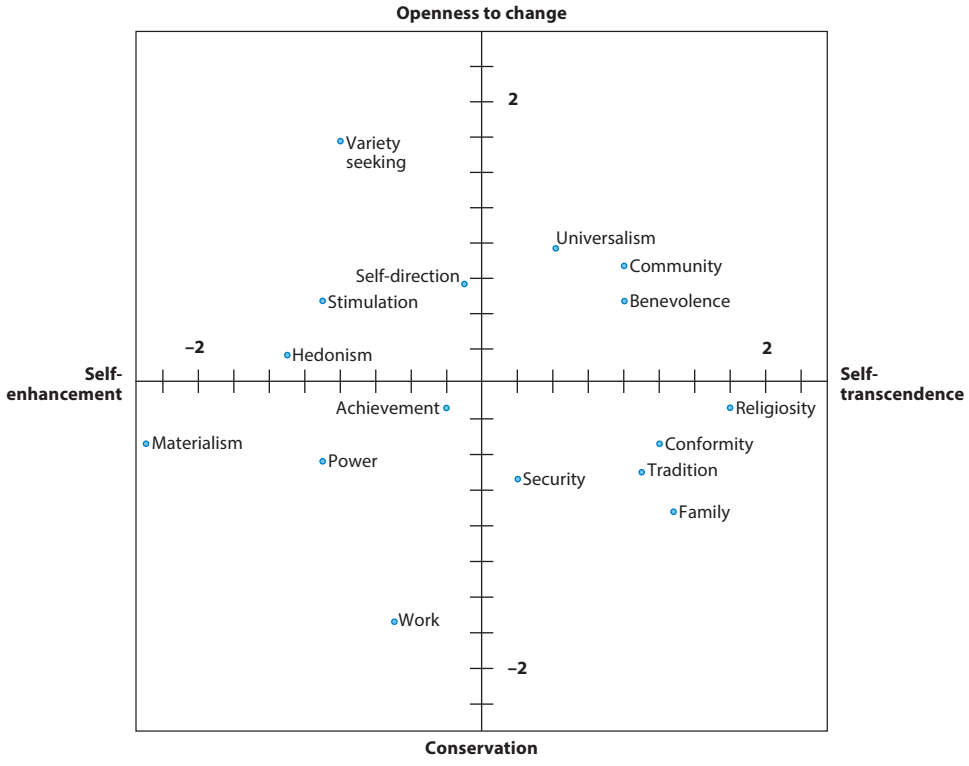

Figure 1

Results of multidimensional scaling analyses representing the relative compatibility and conflict of materialism with other values in the Schwartz value model and with additional values for community, family, and religiosity (from Burroughs & Rindfleisch 2002). Adapted with permission from the University of Chicago Press, ©2002 by *Journal of Consumer Research*.

Grouzet et al. (2005) reported similar findings when 1,854 undergraduates from 15 cultures rated the importance of goals on the AI. **Figure 2** shows the results of circular stochastic modeling analyses conducted on these data. The extrinsic goals of financial success, image, and popularity clustered tightly together in all 15 samples assessed; financial success was also relatively compatible with hedonism, as Burroughs & Rindfleisch (2002) reported. Also consistent with previous findings, the importance placed on these three extrinsic goals stood in relative opposition to community, affiliation, and self-acceptance goals; financial success was also in relative conflict with spirituality goals. One advantage of the circular stochastic modeling procedure Grouzet et al. used is that it provides point estimates reflecting (in this case) where on the circumference of a circle a particular value lies relative to other values; the more consistent two values are, the more similar are their respective point estimates, whereas the more in conflict two values are, the closer to 180° apart are their point estimates. The point estimates of Grouzet et al. (2005) showed, for example, that financial success goals are 33° from image and 46° from hedonism but 192° opposed to community feeling and 143° opposed to spirituality. Such results again corroborate the long-standing notion that a life focused around money is relatively compatible with pursuing one's image and sensual pleasure but relatively difficult to reconcile with being generous and focused on a spiritual life.

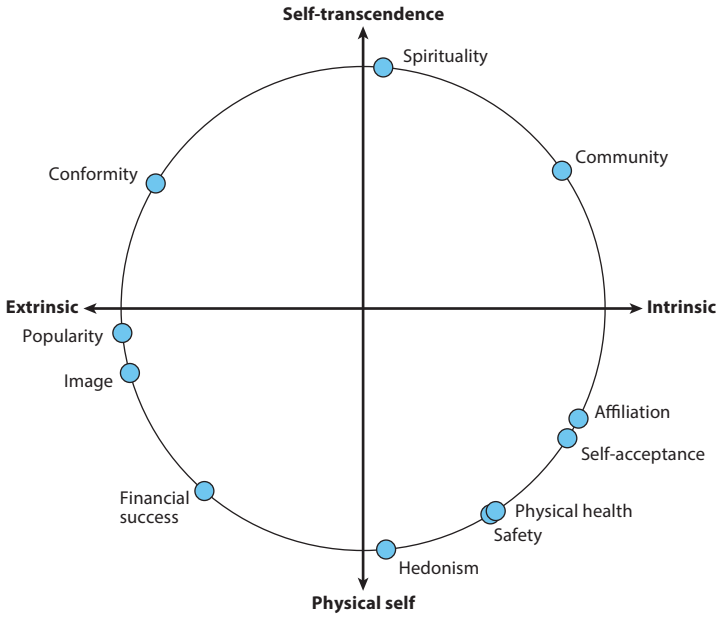

Figure 2

Results of circular stochastic modeling analyses representing the relative compatibility of extrinsic, materialistic goals for financial success, image, and popularity and their relative compatibility and conflict with other goals (from Grouzet et al. 2005). Adapted with permission from the American Psychological Association.

Future Research

Researchers use many materialism measures besides the MVS and the AI, and although diversity of measurement has advantages, many studies use single-item measures or measures with unknown or questionable psychometric properties. A systematic and critical empirical review of materialism measures would help determine which have the strongest psychometric properties; further work on the MVS may also be warranted, as its purported three-factor structure does not always emerge (e.g., Richins & Chaplin 2015). More research is also needed to understand if the meaning of materialism changes across cultures. Consider for example that Grouzet et al.'s (2005) point estimates suggested that financial success is somewhat more compatible with image aspirations in wealthier (27°) than poorer (48°) nations, but somewhat more compatible with safety aspirations in poorer (49°) than in wealthier (71°) nations. Thus, in wealthy nations, financial success aspirations are colored more by the style of one's clothes and handbags, whereas the same goals are more closely tied to survival in poorer nations. Further research is necessary to explore more fully such differences, as well as others that might emerge from cross-cultural research.

Researchers' over-reliance on self-report scales is another major limitation of the literature. Given that social desirability biases may influence self-reporting of materialism (Mick 1996, Solberg et al. 2004), researchers could use and improve upon the implicit methods that exist to measure materialism (Chaplin & John 2007, Schmuck 2001, Solberg et al. 2004). Methods could also be developed to assess the presence of materialistic values in natural language, newspaper articles, politicians' speeches, advertising messages, etc.

Finally, work is needed to explore further materialism's relationship to other values, to traits, and to identity. Although materialism's place in the human value/goal system seems fairly stable,

some discrepancies between **Figures 1** and **2** are notable (i.e., materialism's relationship to conformity and to self-direction/self-acceptance values). In addition, given that materialism has been conceived as a trait (Belk 1985), that trait and value/goal measures of materialism correlate positively (see Kasser & Ahuvia 2002), and that materialism is consistently negatively correlated with agreeableness and openness to experience (e.g., Otero-López & Villardefrancos 2013, Roberts & Robins 2000), more work is needed to determine the interrelationships between these conceptualizations of the construct. Further, if materialism is an aspect of identity (Shrum et al. 2013), narrative, psychobiographical, and single-case methods might prove useful.

II. CORRELATES OF DISPOSITIONAL MATERIALISM

If materialism is a value/goal with a particular set of relations to other aims in the human value/goal system, then the pattern of materialism's relationships to other psychological constructs should depend on whether materialism is compatible or in conflict with those other constructs [see, e.g., Schwartz's (1992) discussion of sinusoidal patterns]. Specifically, materialism should correlate positively with experiences, attitudes, and behaviors relevant to amassing wealth and possessions, to being concerned about image and popularity, and to pursuing hedonistic pleasures, as these aims are relatively consistent with materialistic values and goals (see **Figures 1** and **2**). At the same time, materialism should correlate negatively with experiences, attitudes, and behaviors relevant to prosocial, community, and other self-transcendent concerns, and, perhaps to a lesser extent, with personal growth/self-acceptance strivings, as these aims stand in relative conflict with materialistic pursuits.

The literature reviewed below on the correlates of dispositional materialism provides substantial support for these general claims.

Financial and Consumption Attitudes and Behaviors

Hypotheses derived from the circumplex models suggest that the priority people place on materialism should be positively associated with consuming at high rates, particularly when consuming might help build status and an image that others will applaud. Indeed, compared to individuals who do not care much about materialistic values/goals, individuals who prioritize materialistic values/goals are rather "loose" with their money, as they have worse money management skills (Donnelly et al. 2012, 2013) and more gambling problems (Carver & McCarty 2013); they also endorse attitudes and engage in behaviors that are less thrifty and create more debt (Richins 2011, Watson 2003). A recent meta-analysis (Dittmar et al. 2014) also showed relatively strong positive associations between materialism and compulsive consumption problems (see **Figure 3**), suggesting that materialism is associated with difficulty holding back one's desires to buy stuff.

Dispositional materialism is also positively associated with consumption-relevant behaviors and attitudes that are flavored by hedonism, image, and status values. For instance, Dittmar et al.'s (2014) meta-analysis revealed that materialism scores were positively correlated with engaging in risky health behaviors (see **Figure 3**); such behaviors not only often involve consumption (of cigarettes, alcohol, etc.) but also often have strong hedonistic components. Likewise, materialism is positively associated with attitudes and behaviors relevant to image, including strong concerns for fashion and clothing (Kamal et al. 2013, Workman & Lee 2011), and positive attitudes toward, and intentions to get, cosmetic surgery (Henderson-King & Brooks 2009). Status concerns are also notable in the motives of people scoring high in materialism, as such individuals typically report wanting to make money for reasons such as to have a house and cars that are better than those of their neighbors (Srivastava et al. 2001).

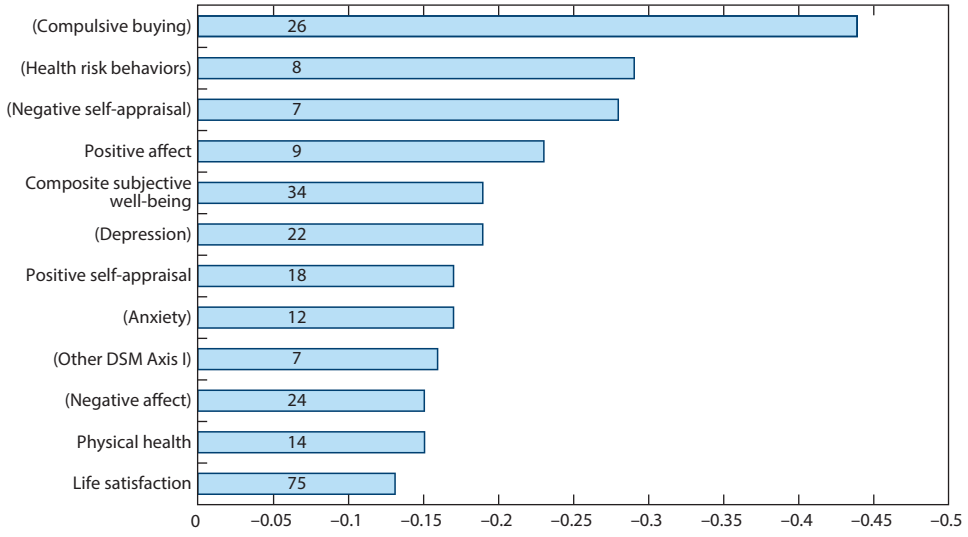

Figure 3

Summary of meta-analytic findings representing the strength of relationships between materialism and various types of well-being (based on table 6 of Dittmar et al. 2014). Note: All forms of well-being in this figure are coded so that a negative correlation indicates that lower well-being is associated with higher materialism; types of well-being that have been reverse coded are in parentheses. Measures that assess materialist values and beliefs (e.g., the Material Values Scale) were used as the reference category for comparing the sizes of these different correlations, and the correlations are based on analyses in which the type of materialism measure was also entered as a factor. The number of samples used to calculate the strength of each relationship (i.e., the *k*) is indicated by the number within its respective bar. Abbreviation: DSM, *Diagnostic and Statistical Manual of Mental Disorders*.

Social Attitudes and Behaviors

Because materialistic aims stand in relative conflict with values/goals for benevolence, family, affiliation, and community (see **Figures 1** and **2**), hypotheses derived from the circumplex models would suggest that materialism is associated with more interpersonal problems and with negative social attitudes toward other people. Indeed, compared to those low in materialism, people high in materialism often get caught in vicious cycles of loneliness (Pieters 2013), have an anxious attachment style (Norris et al. 2012), and have more difficulty balancing family and work commitments (Promisio et al. 2010). Further, materialism is associated with shorter (Kasser & Ryan 2001) and lower-quality interpersonal relationships (as rated by their friends and family; Solberg et al. 2004). Carroll et al.'s (2011) study investigating the materialism of married couples found that, despite the benefits one might assume would result from sharing similar values, couples who both scored high in materialism reported lower marital quality than did couples with only one materialistic partner; couples who were both low in materialism reported the highest levels of marital quality.

Materialism is also associated with treating other people in more self-serving ways. For example, compared to those low in materialism, those high in materialism score lower in empathy (Sheldon & Kasser 1995) and score higher in narcissism (Kasser & Ryan 1996), Machiavellianism (McHoskey 1999), and the affective and interpersonal aspects of psychopathy (Foulkes et al. 2014). They also engage in fewer prosocial behaviors (such as volunteering and helping others; Briggs et al. 2007, Sheldon & Kasser 1995) and more antisocial behaviors (Cohen & Cohen 1996, Kasser

& Ryan 1993, McHoskey 1999). In business settings, materialism is negatively correlated with caring about corporate social responsibility (Kolodinsky et al. 2010) and positively correlated with interpersonally deviant workplace behaviors (Deckop et al. 2015). Materialism scores also predict more competitive (and less cooperative) behavior in the Prisoner's Dilemma Game, even when playing with friends (Sheldon et al. 2000). Finally, people high in materialism have a stronger social dominance orientation, hold more prejudicial beliefs about out-group members (Duriez et al. 2007), and are less concerned about the egalitarian aspects of democracy (Flanagan et al. 2005) compared to people low in materialism.

Ecological Attitudes and Behaviors

Because concerns about the health of our planet are reflected in self-transcendent values/goals for universalism and community feeling, hypotheses derived from the circumplex models in **Figures 1** and **2** suggest that materialism should be associated with caring less about ecological sustainability. As predicted, people who strongly endorse materialistic values/goals engage in fewer environmentally beneficial behaviors and have higher ecological footprints (Brown & Kasser 2005, Richins & Dawson 1992) than those who place a low priority on materialism; they also behave more greedily and less sustainably in forest management dilemma games (Sheldon & McGregor 2000). Hurst et al.'s (2013) recent meta-analysis of this literature found modest but consistent negative associations between materialism and both ecological attitudes ($r = -0.22$ across eight studies) and behaviors ($r = -0.24$ across nine studies).

Educational and Job Motivation

Researchers have also explored how materialism predicts motivational outcomes in work and educational settings. Given that money can increase how much people engage in particular behaviors (although not necessarily the quality of that engagement; Jenkins et al. 1998), and given that materialistic values are consistent with the achievement values frequently encouraged in work and educational settings (see **Figures 1** and **2**), materialism might be positively associated with work and educational outcomes. On the other hand, because external rewards such as money and grades typically undermine intrinsic motivation (Deci et al. 1999), and because intrinsic motivations are reflected in the self-direction and self-acceptance goals that conflict somewhat with materialistic goals (see **Figure 2** in particular), a materialistic focus might be negatively associated with motivation in work and educational domains. The latter hypothesis has more support at present. When employees strongly endorse materialistic values/goals, they report more burnout as well as lower job and career satisfaction (Deckop et al. 2010, Vansteenkiste et al. 2007a). Further, compared to those who do not much care about materialism, children who prioritize materialistic aims report higher performance goals and lower mastery goals for their schoolwork, reflecting an orientation toward extrinsic rather than intrinsic motives for learning; they also have worse learning outcomes (Ku et al. 2012, 2014).

Personal Well-Being

Since the publication of the earliest studies showing that materialism is negatively associated with personal well-being (Belk 1985; Cohen & Cohen 1996; Kasser & Ryan 1993, 1996; Richins & Dawson 1992), and since Kasser's (2002a) review of that literature, dozens more empirical investigations have replicated this finding. Dittmar et al. (2014) recently reported a comprehensive meta-analysis of this literature, examining 749 effects from 258 independent samples (many

unpublished) covering all parts of the populated world. A modest negative correlation ($r = -0.15$, 95% CI: −0.18 to −0.13) was found between materialism and well-being, but additional analyses showed that the size of this association depended on the ways that materialism and well-being were each measured. Regarding materialism measures, correlations were generally stronger for multidimensional scales (such as the MVS and the AI) that assessed the full array of materialistic aims than for single-item scales or scales focused solely on money. Regarding well-being, as can be seen in **Figure 3**, materialism had consistent, negative associations with a wide array of well-being measures (including risky behaviors, self-image, affect, and both subjective and physical well-being), with the size of these effects varying from $r = -0.44$ to $r = -0.13$.

The conclusions drawn from these types of cross-sectional studies are complemented by studies that have used longitudinal and national time-series designs. Over time frames ranging from 6 months to 12 years, college students, emerging adults, and adults who reduced the priority they placed on materialism reported increases in well-being (Hope et al. 2014, Kasser et al. 2014). Nation-level studies conducted in Norway (Hellevik 2003) and the United States (Twenge et al. 2010) also found that increases over time in national levels of citizens' materialism correlated with decreases over time in national levels of citizens' well-being.

Attempts to understand when and why materialism correlates negatively with well-being have spawned several theories and empirical investigations. Space limitations preclude a full overview here, but Dittmar et al.'s (2014) meta-analysis did explore numerous potential moderators and mediators of this relationship.

In terms of moderators, Dittmar et al. (2014) found that the negative associations between materialism and well-being were generally robust across study, sample, and cultural characteristics, with only 7 of the 25 moderators examined yielding significant effects. Even in cases where significant moderation was revealed, the results showed that the negative relationship between materialism and well-being weakened rather than disappeared. For example, materialism had a somewhat weak, but still significantly negative, relationship with well-being (*a*) in samples that were relatively young, had many males, and were composed of many students and practitioners of business and law; and (*b*) in nations that were more economically unequal, had faster economic growth, and deprioritized cultural values for enjoyment and pleasure. Dittmar et al. (2014) interpreted the overall pattern of moderation findings as providing little support for (*a*) an environmental congruence hypothesis claiming that materialism does not hurt well-being if people work or live in contexts that support materialistic values (see Kasser & Ahuvia 2002, Vansteenkiste et al. 2006) and (*b*) a goal-attainment hypothesis claiming that materialism does not hurt well-being if people succeed in their materialistic goals (see Martos & Kopp 2012, Niemiec et al. 2009; although see Nickerson et al. 2003 for mixed results).

In terms of the mediation of the relationship between materialism and well-being, Dittmar et al. (2014) tested two theories. No support was found for the hypothesis that materialism causes dissatisfaction with one's financial life that, in turn, causes decreases in general well-being (although see Sirgy et al. 2012). Support was forthcoming for the explanation derived from self-determination theory (Deci & Ryan 2000, Kasser 2002a) that when people prioritize materialistic values/goals, they experience relatively low satisfaction of psychological needs for autonomy (feeling free), competence (feeling efficacious), and relatedness (feeling connected). This low level of need satisfaction, in turn, leads to low levels of well-being (see Ryan & Deci 2001).

This need-based explanation is quite consistent with hypotheses derived from the circumplex models in **Figures 1** and **2**. The intrinsic goals for self-acceptance, affiliation, and community feeling that are represented in the eastern portion of **Figure 2** have long been described as those whose pursuit helps satisfy these three psychological needs (Kasser & Ryan 1996). Thus, as materialism becomes more important to individuals, intrinsic goals either are "crowded out" [to use

Frey & Oberholzer-Gee's (1997) wonderful phrase], leading people to deprioritize such aims in life, or are experienced as being in conflict with materialistic pursuits (Burroughs & Rindfleisch 2002). Either way, lower need satisfaction would result as the quality of one's interpersonal relations declines, as one spends less time pursuing "something bigger" than one's self, and as one's motives are increasingly driven by status and rewards rather than freedom and interest (for further discussion, see Kasser 2002a).

Future Research

Although the data reviewed in this section suggest that researchers can be confident that materialism is detrimental for people's financial and consumption behavior, interpersonal relationships, treatment of our planet, work and educational motivation, and personal well-being, the processes underlying many of these associations remain unclear. As just discussed, there is growing support for a need-based explanation of the negative relationship between materialism and well-being. Further, investigators have started to explore the pathways through which materialism is positively correlated with compulsive consumption (e.g., Donnelly et al. 2013, Richins 2011). That said, the relationship between materialism and many of the other variables discussed above requires substantial further investigation to clarify the mechanisms involved. Particularly vexing is the question of why people persist at materialistic values/goals when such pursuits are associated with personally unhelpful outcomes. As discussed in Section IV, experiences of insecurity/threat and ongoing modeling of materialism each lead people to prioritize materialism; do they also explain why people maintain a value/goal orientation that yields little long-term satisfaction?

Improvements in study designs are also warranted. Many of the studies reviewed above assess outcomes with retrospective self-report surveys. More compelling designs would utilize diary reports of objective behaviors, reports of peers, and/or observations of study participants in the laboratory or in natural settings; such methods could be applied to many of the types of behaviors discussed above (i.e., financial, ecological, educational, etc.). Greater variety in the types of samples utilized is also needed. Although some studies have investigated materialism in children and in less economically developed nations, such studies are underrepresented in the literature. More studies that use prospective and longitudinal designs would be useful, as would studies with experimental designs. Indeed, as discussed in Section III, experiments that momentarily activate materialistic values/goals hold substantial promise for better understanding dynamics relevant to these aims, as do experiments that test interventions to reduce materialism (see Section IV).

III. THE MOMENTARY ACTIVATION OF MATERIALISM

Although most research on materialism has operationalized the construct as a dispositional, individual-difference variable, a fundamental theoretical assumption underlying the circumplex models presented in **Figures 1** and **2** is that each of these values/goals is present, at least to some extent, in all people, because they represent fundamental motivations basic to all humans (Grouzet et al. 2005, Schwartz 1992). As such, even though a particular person may not place a high priority on a particular aim (such as materialism) at a dispositional level, that aim is nonetheless present within his/her psyche. If this is true, then that aim can be momentarily activated and should influence that individual's behavior soon after activation.

Maio et al. (2009) took this idea a step further by arguing that if a particular value/goal is activated at a moment in time, the circumplex arrangement of values/goals suggests that two predictable sets of effects should ensue. First, activation of a value/goal should increase behaviors and attitudes that reflect the values/goals that are consistent with the activated value/goal; this

can be called a bleed-over effect. Second, activation of a value/goal should suppress behaviors and attitudes that reflect the values/goals that are in conflict with the activated value/goal; this can be called a seesaw effect. Applied to **Figure 2**, this argument suggests that momentary activation of financial success goals should (at least temporarily) increase people's attitudes and behaviors relevant to the acquisition of not only money and possessions, but also image, popularity, and hedonism goals, as these goals are compatible with financial success aims. At the same time, the activation of financial success goals should suppress people's valuing of the intrinsic goals that lie on the opposite side of the circumplex, thereby decreasing people's focus on community feeling, affiliation, and self-acceptance.

A small but growing body of experimental studies supports these hypotheses, yielding many findings that parallel those reported above for studies of dispositional materialism.

Overview of Activation Findings

Several studies have supported the bleed-over effect by using experimental manipulations that activate materialism in ways that many people encounter in their day-to-day lives. For instance, viewing movies (e.g., *Wall Street*) and advertisements with materialistic themes increases materialistic and appearance-related concerns (Ashikali & Dittmar 2012, Shrum et al. 2011), relative to viewing control stimuli. Being referred to as a "consumer" rather than a "citizen" causes study participants to have more positive implicit evaluations of the self-enhancing values with which materialism is consistent (Bauer et al. 2012). Thinking of one's own time (versus another person's time) in terms of money leads people to report that economic criteria are particularly important in their decision-making (Pfeffer & Devoe 2009). And viewing faint (versus blurred) images of $100 bills increases people's endorsement of free-market economic systems (Caruso et al. 2013). Each of these studies supports the proposition that a materialistic prime causes a shift toward greater concern with topics, values, self-concepts, and economic systems that reflect the values/goals that **Figures 1** and **2** suggest are compatible with materialistic concerns.

The kinds of seesaw effects that Maio et al.'s (2009) logic predicts are also notable in the activation literature, particularly for outcomes that reflect the prosocial behaviors and attitudes reflected in universalism values and community feeling goals. For instance, after being primed with materialistic (versus control) images or thoughts, people report a higher social dominance orientation (Caruso et al. 2013) and behave more selfishly in community (Frey & Oberholzer-Gee 1997) and environmentally relevant (Bauer et al. 2012) resource dilemmas. Several studies also show that momentarily activating materialism (versus other topics) causes people to be less likely to help others and to donate money (Roberts & Roberts 2012, Vohs et al. 2006, Wierzbicki & Zawadzka 2014). Such results occur even in children as young as 5 years old (Gasiorowska et al. 2012) and may be due to the belief that money issues should play a key role in one's decisions (Pfeffer & Devoe 2009).

Interpersonal behaviors are also suppressed by the activation of materialism. Vohs et al. (2006) reported a series of studies demonstrating that exposure to materialistic (versus neutral) primes causes people to prefer to be self-sufficient and to distance themselves from others. And in one telling study (Goldberg & Gorn 1978), 4- and 5-year-old children who watched a program with two commercials for a particular toy (versus no commercials) later chose to play with the toy by themselves rather than with their friends in a sandbox.

Motivation for academic behavior is also affected by activating materialistic values/goals. Framing a task as concerning extrinsic (rather than intrinsic) goals caused decreased depth of processing, persistence, and performance (Vansteenkiste et al. 2004). Similarly, Chinese students shifted toward a performance orientation (and away from a mastery orientation) after a materialistic (versus

no) prime, and British students gave up more quickly on a puzzle after a materialistic (versus affiliative) prime (Ku et al. 2014).

Some evidence also suggests that materialistic primes affect well-being outcomes. For instance, priming extrinsic (versus intrinsic) values decreases motivation to engage in the health-promoting behavior of exercise (Vansteenkiste et al. 2007b). Although Solberg et al. (2004) did not find immediate effects on well-being after materialistic primes, Bauer et al. (2012) reported that viewing advertisements of luxury consumer goods (versus neutral images) caused increases in negative affect. Further, thinking about one's time as money (versus control procedures) caused increased feelings of impatience, decreased happiness from leisure-time activities on the Internet, and decreased pleasure from listening to a song (Devoe & House 2012).

Future Research

The literature on the momentary activation of materialistic values/goals is clearly in its infancy, but its importance should not be underestimated. First, using many of the same types of outcomes that have been studied in correlational research, these findings provide some experimental evidence pointing to the possibility that a focus on materialistic values causes some of the same deleterious outcomes reviewed in Section II. Second, taken as a group, these studies provide further evidence that materialism is a value/goal with a predictable set of relations to other values/goals in the human motivational system. Without the kinds of predictions derived from the models in **Figures 1** and **2**, and from Maio et al.'s (2009) theoretical insights, the studies reviewed above could seem like a miscellany of unrelated findings. But by understanding materialism's relative place in the value/goal system, it becomes sensible that the momentary activation of materialism not only increases concerns for money, image, and status, but also suppresses prosocial and proenvironmental behavior, interpersonal connections, educational motivation, and personal well-being.

As research unfolds in the years to come, a few issues are worthy of consideration. First, might the well-known undermining effect of intrinsic motivation by financial and other extrinsic rewards (Deci et al. 1999) be understood from a value/goal conflict perspective? Perhaps rewards momentarily activate the materialistic values/goals in the western portions of **Figures 1** and **2**, thereby suppressing the kinds of intrinsic motivations represented in self-direction and self-acceptance pursuits. Second, although there are a few inklings of the mediational processes involved when materialistic values/goals are momentarily activated (e.g., Pfeffer & DeVoe 2009), substantially more work is required to understand exactly how activation causes bleed-over and seesaw effects. Third, in life outside of the laboratory, people rarely experience only a single exposure to any particular set of stimuli, much less to the materialistic stimuli so common in consumer culture. As such, more externally valid designs would explore the effects of frequent exposures to materialistic stimuli (both in and out of focal awareness).

A final, crucial methodological issue concerns the use of control groups that are neutral with regard to values/goals. Some experimental studies have compared behaviors or attitudes of people exposed to a materialistic prime with people exposed to a prime that might have momentarily activated some other value/goal, such as community feeling or spirituality. Although such designs are appropriate when researchers are interested in studying the overall dynamics of the value/goal system, they make it difficult, if not impossible, to know conclusively what effects drove the observed results. For example, imagine a study in which the experimental group is primed with stimuli relevant to materialistic values/goals and the control group is primed with stimuli relevant to universalism values/goals. If the group primed with materialistic stimuli donates less to charity than does the control group, this effect could be due to materialism's suppression of prosocial

behaviors (i.e., a seesaw effect), to universalism's activation of prosocial behaviors (i.e., a bleed-over effect), or to both effects working together. Thus, when researchers want to isolate materialism's effects, a control group that is neutral with regard to values/goals should be included in the study design.

IV. WAYS TO DECREASE MATERIALISM

The literature reviewed thus far suggests that a variety of detrimental outcomes are associated with, and perhaps caused by, a relatively high prioritization of materialistic values/goals. Although both the historical record and the theoretical assumptions underlying the circumplex models of values/goals suggest that materialistic values will probably never be excised from the human psyche, it is possible that people could focus less on materialistic pursuits. How, then, to decrease materialism?

Overview of Materialism-Reduction Strategies

Crompton & Kasser (2009) and Kasser (2011a,b) presented three sets of strategies to decrease materialistic, extrinsic values/goals. These strategies are not only supported by empirical and theoretical work, but are also flexible enough to be applied at many levels, ranging from therapeutic and community interventions to broader policies and practices.

The first set of strategies involves activating and encouraging the values/goals that stand in relative opposition to materialistic values/goals. As reviewed above, when people focus on materialistic values/goals, they tend to deprioritize behaviors and attitudes associated with the intrinsic and self-transcendent values/goals on the opposite side of the value/goal circumplex (see **Figures 1** and **2**). But the converse is also true: To the extent people prioritize intrinsic and self-transcendent values/goals for community, for connection with others, and for their own personal growth, they tend to place less priority on materialistic values/goals. As such, interventions and policies that activate and encourage intrinsic and self-transcendent aims not only should support the attitudes and behaviors consistent with those healthier aims (i.e., the bleed-over effect), but should also reap the additional benefit of suppressing materialistic values/goals (i.e., the seesaw effect).

A second set of strategies involves attempts to reduce the extent to which people are exposed to and affected by messages in their social surroundings suggesting that money, possessions, status, and image are important values/goals to pursue. Numerous studies show that exposure to materialistic messages causes people to prioritize these values/goals. For instance, individuals report relatively high materialism scores when their parents espouse materialistic values (Goldberg et al. 2003, Kasser et al. 1995) or engage in materialistic parenting practices (Richins & Chaplin 2015), when they experience peer pressure concerning materialism (Banerjee & Dittmar 2008), and when they were raised in an overall materialistic milieu (Ahuvia & Wong 2002). Materialistic values are also relatively high when students pursue academic topics that encourage materialistic values (Sheldon & Krieger 2004) and when people live in wealthy neighborhoods that model materialistic values (Zhang et al. 2014). Television use is also positively correlated with materialism (Good 2007, Nairn et al. 2007, Schor 2004, Sirgy et al. 1998); indeed, longitudinal (Opree et al. 2014), quasi-experimental (Brand & Greenberg 1994), and experimental (Shrum et al. 2011) studies all support the conclusion that exposure to materialistic (versus non-materialistic) messages through this medium can cause increases in materialism. At a broader societal level, increases in the materialism of American youth from 1976–2007 (of the sort represented in **Figure 4**) are predicted by increases in the percentage of the US Gross Domestic Product that was due to advertising expenditures (Twenge & Kasser 2013). Finally, when people live under capitalistic economic systems that are more competitive, deregulated, and free-market oriented (versus more

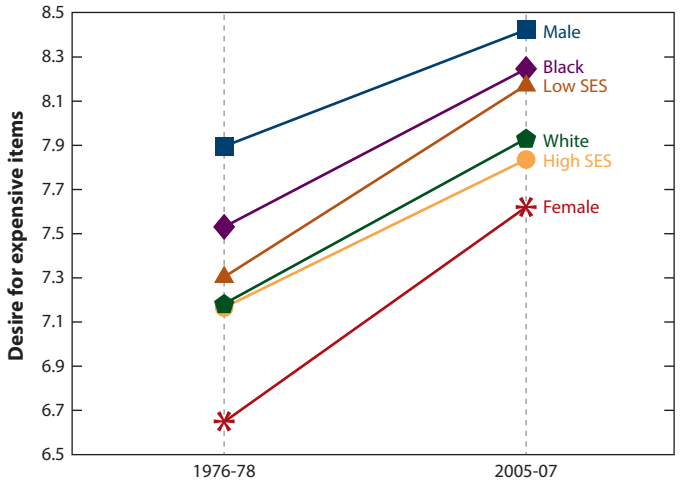

Figure 4

Increases in the desire of US youths for expensive items from 1976–78 to 2005–07, across socioeconomic status (SES), gender, and race (from Twenge & Kasser 2013). Adapted with permission from Sage Publications.

regulated and cooperative), they more strongly endorse materialistic and self-enhancing values for money, power, status, and the like (see Kasser 2011c, Kasser et al. 2007, Kilbourne et al. 2009, Schwartz 2007). Materialism can therefore be decreased by removing materialistic messages from the environment, by reducing people's exposure to those messages, and/or by providing people with strategies to diminish the effect of those messages when they are encountered.

A third set of strategies involves helping people to feel less insecure, threatened, and worried about their ability to satisfy their physical and psychological needs. Multiple types of data show that threat and insecurity cause people to place a relatively high priority on materialistic values/goals. For instance, high levels of materialism are associated with experiential avoidance (Kashdan & Breen 2007), motivations and self-presentational strategies designed to overcome feelings of incompetence and insecurity (Christopher et al. 2005, Christopher & Schlenker 2004, Srivastava et al. 2001), and dreams of falling and death (Kasser & Grow Kasser 2001). Materialistic values, goals, and behaviors increase as a result of threat-inducing experimental manipulations involving hunger (Briers et al. 2006), uncertainty (Chang & Arkin 2002), social exclusion (Twenge et al. 2007), physical pain (Zhou et al. 2009), thoughts of death (Kasser & Sheldon 2000), and concerns about economic insecurity (Sheldon & Kasser 2008). People with family histories characterized by cold, inconsistent, and/or controlling parental styles, by parental divorce, by food insecurity, and by economic stress also place a relatively high priority on materialistic values [Allen & Wilson 2005, Cohen & Cohen 1996, Kasser et al. 1995, Richins & Chaplin 2015, Rindfleisch et al. 1997; see also the life history methods advocated by Moschis 2007 and used in numerous studies (e.g., Nguyen et al. 2009)]. Materialism is also increased by threats induced at broader societal levels, including recent political and economic turmoil (Ger & Belk 1996) and economic stress, instability, and disconnection (Abramson & Inglehart 1995, Twenge & Kasser 2013). If these threats can be reduced, or if people can learn to respond to these threats differently, materialism should decline.

In sum, efforts to decrease materialism should be successful to the extent that they activate and encourage intrinsic and self-transcendent values/goals, reduce exposure (or the effects of exposure) to societal models of materialistic values, and/or increase a sense of felt security and safety. The

next section discusses some of the interventions that have been shown to reduce materialism and explains how their effectiveness can be understood as consistent with these strategies. Some broader policies that could utilize these strategies are then briefly mentioned.

Interventions to Decrease Materialism

Several studies have directly shown that when people are led to focus on intrinsic and self-transcendent values/goals, they shift away from materialistic values. For example, Weinstein et al. (2009) conducted four laboratory studies in which participants reported their aspirations after being exposed to scenes or objects that either reflected nature (thereby activating a self-transcendent value) or scenes or objects that were human-made. To the extent people became immersed in the nature stimuli, they deprioritized extrinsic aspirations and increased the value they placed on intrinsic aspirations. Environmental norms also mitigate the tendency to behave in more materialistic and greedy ways after thinking about one's own death (Fritsche et al. 2010). Similar results occur when spiritual or religious values are activated. For instance, recalling a spiritual event decreases materialistic desires (Stillman et al. 2012), and reading an essay that reviews evidence supporting the existence of the afterlife decreases people's greedy behaviors after thinking about death (Dechesne et al. 2003). Lekes et al. (2012) conducted one of the more ambitious studies examining the potential benefits of activating intrinsic values. Undergraduates selected their two most important intrinsic values and then wrote brief essays about the importance of these values in their lives. Doing so led to immediate increases in well-being compared to the control group members, who focused on everyday topics such as cooking dinner. Over the next month, participants in the experimental group were sent weekly emails reminding them of their chosen intrinsic values, providing them with quotes expressive of intrinsic values, and inviting them to reflect on their intrinsic values; subjects in the control group received parallel emails. Participants in the intrinsic reflection group who reported deep engagement with the exercises shifted toward intrinsic and away from extrinsic aspirations, with consequent benefits for their well-being; engagement in the control exercises yielded no such changes.

Interventions that improve people's feelings of security also cause decreases in materialism. For instance, adolescents whose self-esteem was temporarily boosted became less materialistic soon afterward (Chaplin & John 2007). Similarly, thinking about high-quality interpersonal relationships shifts people away from materialistic, extrinsic goals (Clark et al. 2011, Sheldon & Kasser 2008); nostalgic recollections also decrease people's attachment to money, apparently because such recollections typically involve memories of positive interpersonal activities (Lasaleta et al. 2014). Having the opportunity to deeply consider one's own death also reduces materialism. In contrast to the effects that typically occur when people undergo a standard mortality salience manipulation (Arndt et al. 2004), when people reflect on their own death in a deep, involved manner (Cozzolino et al. 2004) or on a daily basis (Lykins et al. 2007), they shift away from extrinsic, materialistic values and toward more intrinsic values. The fact that similar shifts occur after near-death experiences (Ring 1984) and as a result of posttraumatic growth (Tedeschi & Calhoun 2004) suggests that deep consideration of one's own death may impel people to view their lives in ways that lead them to reject materialistic values/goals.

Indeed, inward reflection in and of itself shifts people away from materialistic values/goals. For example, merely reconsidering one's ratings on the AI causes people to less strongly prioritize extrinsic goals and more strongly prioritize intrinsic goals (Sheldon et al. 2003). Gratitude reflections also produce declines in materialistic values/goals (Lambert et al. 2009). Further, when individuals who participated in a meditation program became more mindful, they also reported

smaller gaps between their current and desired financial situation; this, in turn, benefitted their well-being (Brown et al. 2009).

Interventions with adults can also help children become less susceptible to consumer culture's influences. Children's materialistic values are less affected by exposure to advertising when their parents use an active style that critiques commercials and when they involve their children in discussions about family consumption decisions (Buijzen & Valkenburg 2005). Experimental evidence also shows that when adults make factual (e.g., "Those commercials are intended to sell") or evaluative ("These commercials are stupid") comments while watching advertisements with children, the children report more negative attitudes toward the commercials, with consequent reductions in their expressed desire for the product advertised (Buijzen 2007). Kasser et al. (2014) combined these techniques with other materialism-reduction strategies in an in-depth intervention with adolescents and their parents. Participants were randomly assigned either to a no-treatment control group or to an established financial planning program that met for three, 3-hour group sessions. The program critiqued consumer culture and attempted to decrease the influence of its messages (via discussions of the power and purpose of advertising); it also attempted to activate intrinsic values by encouraging value reflection, by facilitating discussions about the importance of sharing one's money (i.e., universalism and community values/goals), and by helping participants develop value-based plans for their money. Materialism was measured before the intervention and again ~2 months and ~10 months after it ended. Latent growth curve analyses showed that, compared to adolescents in the control group, those in the intervention group decreased in materialism over time, a trend still evident ~10 months after the intervention ended. What's more, those adolescents who began the study high in materialism and who received the intervention showed sustained increases in self-esteem over time, whereas their counterparts in the control group experienced decreases in self-esteem.

Future research. Although support is accumulating for the materialism-reduction strategies articulated in this section, the studies reviewed above suffer from numerous weaknesses. First, most involved brief, one-off interventions, with only a handful (Brown et al. 2009, Kasser et al. 2014, Lekes et al. 2012) endeavoring to implement interventions that might lead to sustained changes in materialism; more studies of this latter type are needed. Second, most of the interventions have been conducted with samples that are rather financially privileged. Would these interventions be effective among individuals who are experiencing substantially more economic stress? Third, the exact processes responsible for the beneficial effects of some interventions remain unknown. For example, why do the various reflection interventions lead people to orient away from materialism? Does reflection diminish feelings of insecurity in the same way that mindfulness helps decrease the experiential avoidance (Hayes et al. 2012) known to be associated with materialism (Kashdan & Breen 2007)? Does reflection help people orient their lives around an organismic valuing process that recognizes how well intrinsic and self-transcendent values/goals succeed in promoting health and well-being (see Kasser 2002b, Sheldon et al. 2003)? Understanding such mediational processes could lead to the development of even more effective interventions.

Policies to Decrease Materialism

The evidence reviewed above suggests that materialistic values/goals can become less important when people orient their lives around intrinsic and self-transcendent values/goals, try to shield themselves (and their children) from the messages of consumer culture, and/or engage in activities that help increase felt security. Ultimately, however, individual-level attempts to orient away from

Table 1 Policy proposals to diminish materialism and their relevance to materialism-reduction strategies

Policy proposal	Relevance to strategies
Replace or supplement existing measures of progress that are primarily economic (e.g., Gross National Product, consumer confidence) with alternative measures (e.g., Gross National Happiness Index, Well-Being Index, and Human Development Index). Such measures can be used at national, regional, or local levels (as is already the case in Bhutan and the US city of Seattle)	Would diminish the modeling of materialistic values/goals by governments and encourage pursuit of intrinsic/self-transcendent values/goals; might also promote felt security if progress on alternative measures improves
Repeal existing tax deductions for business advertising expenses; instead, tax advertising and marketing expenses at a 10% "value pollution" rate, using the resulting revenue to fund programs that promote intrinsic/self-transcendent values/goals and felt security	Would penalize efforts to promote materialistic values/goals, thereby potentially diminishing their presence in the environment; if revenue were used for the proposed purpose, would encourage intrinsic/self-transcendent values/goals and promote felt security
Ban advertisements in schools, on school buses, and in learning materials	Would diminish modeling of materialistic values/goals
Remove advertising from public spaces (as has been done in São Paulo, Brazil and Grenoble, France)	Would diminish modeling of materialistic values/goals
Ban advertising targeted at children (as has been done in Brazil, Sweden, Norway, and Quebec, and as is being recommended by the United Nations Special Rapporteur on Cultural Rights)	Would diminish modeling of materialistic values/goals; might promote felt security of children (who would no longer be manipulated by advertisers)
Empower localities so they can refuse to allow certain corporations to operate in their areas	Would diminish the power of purveyors of materialistic values/goals; might promote felt security
Pass amendments that differentiate the constitutional rights of persons from the constitutional rights of corporations	Would diminish the power of those who purvey materialistic values/goals
Reinstate requirements that corporations balance attempts to maximize financial profit with community responsibility	Would diminish the power of those who purvey materialistic values/goals and would encourage them to pursue intrinsic/self-transcendent values/goals

materialistic values/goals will be hampered to the extent that people are frequently encouraged by their peers, employers, media, and government to focus on materialistic values, and to the extent that the economic system under which they live suggests that possessions, profit, and economic growth are crucially important aims. Materialistic values/goals would be more likely to decline if the culture and economy promoted feelings of security rather than threat, and if intrinsic and self-transcendent values/goals were encouraged more than materialistic aims.

Cultural and economic shifts of these sorts will require broader policy changes. **Table 1** reviews a number of policies that hold promise for decreasing materialism; it also explains how each policy is relevant to the materialism-reduction strategies articulated in this section. Given space limitations for the current review, and given that these policy suggestions have not yet been subjected to nearly as much empirical scrutiny as have person-level interventions to decrease materialism, I offer just one comment regarding them. (Readers interested in other policy suggestions are referred to Kasser 2011a,b.)

Psychologists and other academics are often reticent about, and rarely rewarded for, investigating topics of a politically sensitive nature and then writing about the societal implications of their findings (Hoffman 2015, Kasser & Kanner 2004). Nonetheless, research is clearly needed to inform effective policy-making so as to reduce materialism and the personal, social, and ecological ills associated with it. For example, one proposal mentioned in **Table 1** that has gained some traction concerns the use of alternative indicators of national progress (e.g., Bates 2009, Diener &

Seligman 2004) to replace dominant measures such as Gross National Product. Gross National Product clearly privileges materialistic values over other values, as it increases whenever money changes hands, even when that money is used to purchase antidepressants, clean up toxic waste, build prisons, go to war, etc. The proposed alternative indicators, in contrast, typically focus on intrinsic and self-transcendent values/goals by directly assessing well-being, interpersonal connections, the health of one's community and natural environment, etc. Social scientists have been at the forefront of efforts to design such alternative indicators, and they could contribute further by asking questions such as: How do people behave in laboratory simulations where one or another type of indicator is used as a measure of "success"? What factors would increase the likelihood that politicians actually would use the alternative indicators in their decision-making? What types of interventions would be most effective in raising a community's standing on alternative indicators? Similar sets of research questions could be asked about all of the other policies described in **Table 1** (see, e.g., Kunkel et al. 2004 for numerous research questions relevant to advertising aimed at children).

V. CONCLUSION

In closing, I hope that readers take the following three points from this review.

First, although materialism may have trait-like and identity-like features, I hope to have shown the usefulness of considering materialism as a set of values/goals with particular dynamic relations to the other aims in the human value/goal system. I believe that this means of conceptualizing the construct provides the best way of integrating the diverse array of findings that have been reviewed here, including the associations of materialism with one's debt levels, treatment of other people and the planet, health behavior, and personal well-being, among others variables.

Second, I hope readers see that although it may be easy to believe that research on materialism mostly concerns the study of materialistic individuals who strongly prioritize such aims in life, a more useful, and, I think, more accurate attitude is to recognize that all of us have materialistic tendencies. These tendencies can be activated in a particular moment, enhanced when we see them modeled in society, and brought on by temporary or chronic feelings of threat or insecurity. As such, researchers need to ask not only, "Who is materialistic?" but also "When are people materialistic?"

Third, given that materialism is not likely to disappear from the human psyche, given the ills associated with it, and given how much contemporary culture encourages people to pursue materialistic values/goals, I believe the most important question for materialism researchers to confront in the coming years is the following: "How can people create lives, organizations, economies, and societal structures that acknowledge humans' materialistic tendencies but that do not allow those tendencies to run rampant over other valuable aims in life?"

SUMMARY POINTS

1. Materialistic aims are a fundamental part of human value/goal systems; they concern becoming wealthy, obtaining possessions, presenting an appealing image, and being of high status.
2. Materialistic aims are in relative conflict with self-transcendent and intrinsic values/goals that concern having good interpersonal relationships, helping the world be a better place, growing as a person, and being spiritual.

3. Meta-analytic results document that to the extent people prioritize materialistic aims, they report higher levels of compulsive consumption, lower personal well-being, more physical health problems, and more ecologically destructive attitudes and behaviors.
4. To the extent people prioritize materialistic aims, they also consume more and incur more debt, have lower-quality interpersonal relationships, treat other people in less caring ways, and have adverse educational and occupational motivation.
5. Momentarily activating materialistic aims increases concerns for psychologically compatible values (e.g., money, image, status) and suppresses concerns for the intrinsic and self-transcendent aims that are in psychological conflict with materialism (including prosocial and proenvironmental behavior, interpersonal connections, educational motivation, and personal well-being).
6. Interventions to reduce materialism are effective when they activate and encourage intrinsic and self-transcendent values/goals, reduce exposure (or the effects of exposure) to societal models of materialistic values, and/or increase a sense of felt security and safety.
7. Numerous policy approaches could reduce materialism by increasing the extent to which cultures and economies promote feelings of security rather than threat, and by encouraging intrinsic and self-transcendent values/goals rather than materialistic aims.

FUTURE ISSUES

1. Although materialism can be validly measured with self-report instruments, the field would benefit from the development of implicit measures of materialism and means of coding materialistic values/goals in natural language, politicians' speeches, life narratives, etc.
2. Substantially more research on materialism is needed that utilizes samples of children and people from economically developing cultures and that uses prospective, longitudinal, and experimental designs.
3. Although the mediators of the negative relationship between materialism and well-being are fairly well documented, research has yet to definitively reveal the processes that explain the relationships between materialism and other problematic outcomes (e.g., compulsive consumption, ecologically damaging behaviors).
4. Further research is required to understand the reasons why people continue to prioritize materialistic values/goals even when such aims bring little satisfaction.
5. To increase the external validity of research on the activation of materialistic aims, studies need to expose participants to materialistic stimuli more frequently (as opposed to only once or twice).
6. Most studies that have attempted to reduce materialism involve brief interventions that likely have short-lasting effects; more in-depth interventions are needed to test if longer-lasting reductions in materialism can occur.

7. The development and implementation of policies to decrease materialism will be facilitated if researchers study and write about broader, macro-oriented topics such as advertising to children and alternative indicators of progress.
8. A crucial question for researchers to consider is how people can create lives, organizations, economies, and societal structures that acknowledge humans' materialistic tendencies but that do not allow those tendencies to run rampant over other valuable aims in life.

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