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IS GRATITUDE AN ALTERNATIVE TO MATERIALISM?

ABSTRACT. Materialistic strivings have been implicated as a cause of unhappiness. Gratitude, on the other hand – both in its manifestations as a chronic affective trait and as a more temporary emotional experience – may be a cause of happiness. In the present paper we review the empirical research on the relationships among materialism, gratitude, and well-being. We present new correlational data on the gratitude–materialism relationship and propose that gratitude may have the potential to reduce materialistic strivings and consequently diminish the negative effects of materialistic strivings on psychological well-being. We conclude with some recommendations for future research on the relationships among gratitude, materialism, and well-being.

KEY WORDS: gratitude, happiness, materialism, positive psychology

Many contemporary social theorists recognize that materialism is a pervasive problem for individuals, relationships, and society, although there is less consensus about what can be done to alleviate it. Belk (1985) defined materialism as the value a consumer places on material possessions and concluded that materialism is a broad construct that subsumes personality traits such as envy, lack of generosity, and possessiveness. Richins and Dawson (1992) conceptualized materialism as the placing of a relatively high value on the possession of wealth and material goods. Inglehart (2000) defined materialism (in contrast to post-materialism) as a persistent emphasis on lower-order needs for material comfort and physical safety over higher-order needs such as self-expression and quality of life. Kasser and colleagues used the term “materialistic value orientation” to define the consumption-based culture’s set of aims, beliefs, goals, and behaviors (Kasser et al., 2004).

There are conflicting ideas about materialism in societal messages. At present, society places considerable emphasis on materialistic values, but at the same time, it emphasizes more collective-oriented values such as family cohesion, community

ties, and religious fulfillment (Burroughs and Rindfleisch, 2002). Similarly, psychological theories have expressed opposing views about materialism. For example, theorists working from an evolutionary perspective (e.g., Wright, 2000) have proposed that conspicuous consumption (Veblen, 1899/1965) and the desire to acquire new technologies (i.e., “gadgets”) are human universals whose functions are not only to obtain competitive advantage but also to signal one’s wealth, status, or resourcefulness, and therefore, one’s desirability as a mate, leader, or coalition partner (Zahavi, 1975). Indeed, recent research illustrates that people often go to great lengths in efforts to advertise their status through conspicuous consumption (Van Kempen, 2003).

Other psychological approaches, however, counsel caution against materialistic strivings, irrespective of any social functions that such strivings might serve. Humanistic and existential psychologists acknowledge that material possessions are necessary for meeting basic physical needs, but they argue that a focus upon possessions and wealth ultimately undermines the search for happiness and psychological fulfillment (Kasser, 2002). For example, Burroughs and Rindfleisch (2002) argued that materialism creates a conflict of values (individualistic versus collectivistic) that creates psychological tension, thereby hindering psychological well-being.

Insofar as materialistic strivings truly deter psychological well-being, it may be valuable to identify psychological processes that can be used to counteract these strivings. One possible candidate is the emotion of gratitude (McCullough et al., 2001, 2002). For reasons we will elaborate, we think that a positive other-oriented emotion such as gratitude may have the power to change social cognition, motivation, and social relationships in precisely the ways that are likely to reduce materialistic strivings and their deleterious effects on psychological well-being.

In the present paper, we first examine the empirical research on materialism and its links to well-being. Second, we review the existing research on gratitude and its links to well-being. We then review the existing research on gratitude and materialism, report new correlational data on the gratitude-materialism relationship, and briefly conclude with some suggestions for future research on gratitude, materialism, and well-being.

WHY ARE PEOPLE MATERIALISTIC?

Kasser and colleagues (2004) suggested that a materialistic values orientation develops through two routes: Developmental experiences that create feelings of insecurity and exposure to social models that encourage materialistic values.

Materialism and Insecurity

The first developmental route to materialism – insecurity – comes into play when people have not had their basic psychological needs met – needs such as safety, competence, connectedness, and autonomy (Kasser et al., 2004). Kasser and Sheldon (2000) identified materialism as both a symptom of insecurity and an effort to cope with insecurity. Insofar as materialism is often an attempt to cope with psychological insecurity, it is a poor one because materialistic striving tends to exacerbate the very feelings of insecurity that it is intended to eliminate. In support of this contention, Kasser and Sheldon activated participants' feelings of insecurity by having them write about death. The participants who wrote about death had higher financial expectations for the future, became greedier, and consumed more resources in a forest-management game than did participants in a control condition. Similarly, Chang and Arkin (2002) performed an experiment demonstrating that people experiencing chronic self-doubt showed higher materialism if they were primed to experience insecurity. Specifically, Chang and Arkin found that people with chronic perceptions of anomie (i.e., the belief that society is losing its norms and ethical values) show higher materialism if primed with the concept of normlessness (i.e., they were induced to think about lack of social regulation and moral standards in society).

Other research shows that parenting styles that fail to satisfy children's needs may lead to higher materialism in children (Kasser et al., 2004). Rindfleisch et al. (1997) found that young adults raised in families in which the parents were divorced or separated were more materialistic and exhibited higher levels of compulsive consumption than did those who were raised in intact families. Related to materialism, compulsive consumption has been defined as "a response to an uncontrollable drive or

desire to obtain, use, or experience a feeling, substance, or activity that leads the individual to repetitively engage in behavior that will ultimately cause harm to the individual and/or others” (O’Guinn and Faber, 1989, p. 147).

Economic deprivation is another developmental source of insecurity that leads to materialism. Cohen and Cohen (1996) showed that teenagers high in materialism tend to come from socially and economically disadvantaged backgrounds. Further, cross-cultural work by Abramson and Inglehart (1995) showed that large-scale economic factors also influence materialism. People living in poorer countries were more materialistic than those living in richer countries, generations raised in poor economic times are more materialistic than those raised in richer times, and national recessions tend to result in increased materialism. Poor economic conditions, therefore, can cause feelings of insecurity for which people sometimes compensate by turning to materialistic pursuits (Van Kampen, 2003).

Exposure to Materialistic Role Models

The second developmental route to materialism is exposure to materialistic models. Ahuvia and Wong (2002) found that individuals who reported growing up in a materialistic environment tended to be more materialistic themselves. Further, society is inundated with advertisements containing materialistic themes, and people frequently assimilate materialistic values from such sources unconsciously. For example, television is an arena for exposure to incessant materialistic messages. Accordingly, materialism has been associated with a high amount of television watching across numerous cultures (e.g., Sirgy et al., 1998). Television reveals a discrepancy between people’s own lives and cultural ideals, and these unrealistic media images reduce life satisfaction (Kasser, 2002; see also Braun & Wicklund, 1989).

ASSOCIATIONS OF MATERIALISM WITH PSYCHOLOGICAL WELL-BEING

Research on the relative happiness of wealthy and poor people makes it clear that financial success beyond what is necessary

for sufficient food, shelter, and clothing has a relatively small effect on well-being (Kasser, 2002; Myers and Diener, 1996). Moreover, researchers routinely find that individuals who focus on the acquisition of material objects exhibit reduced life satisfaction (Richins and Dawson, 1992), diminished levels of happiness (Belk, 1985), and higher levels of depressive symptoms (Kasser and Ryan, 1993). In addition to being less satisfied with life as a whole, materialistic people also tend to be less satisfied with other aspects of their lives such as their standards of living, their family lives, and the amounts of fun and enjoyment they experience (Richins and Dawson, 1992; Sirgy et al., 1998).

Similar associations have been documented in samples of individuals rich and poor, and young and old, from around the world. For example, recent research in Singapore has shown that individuals with a high materialistic orientation were less satisfied with their lives overall and with their friends, material comfort, and money than those with a low materialistic orientation (Kau et al., 2000). Furthermore, Cohen and Cohen (1996) found that adolescents who admire others because of their material possessions are at an increased risk for various DSM-IV psychological disorders. Indeed, placing a high priority on being wealthy was associated with almost every Axis I and Axis II diagnosis that Cohen and Cohen (1996) assessed. Therefore, the pursuit of wealth and possessions as an end unto itself is associated with lower levels of well-being, lower life satisfaction and happiness, more symptoms of depression and anxiety, more physical problems such as headaches, and a variety of mental disorders (Kasser, 2002). In summary, it seems that people often pursue materialistic goals because they believe that wealth and goods can provide them with happiness. However, materialism has exactly the opposite effect: It has a negative association with nearly every quality of life measure studied to date.

GRATITUDE: AN ANTIDOTE TO MATERIALISM?

What can be done to counteract the negative effects of materialism on psychological well-being? We propose that

gratitude – either as a global personality disposition or as a temporary emotion or mood state – may be able to counteract materialistic strivings and their negative effects on well-being. Gratitude has been defined as “an estimate of gain coupled with the judgment that someone else is responsible for that gain” (Solomon, 1977, p. 316). Bertocci and Millard (1963) noted that gratitude is the recognition that one has been the beneficiary of someone else’s kindness, and Emmons (2004, p. 9) defined gratitude as “the recognition and appreciation of an altruistic gift.” Thus, gratitude results from two cognitions: (a) that one has obtained a positive outcome and (b) that an external agent is responsible for it (McCullough et al., 2002).

McCullough et al. (2001) conceptualized gratitude as a moral emotion because it typically results from and causes behavior that is motivated by concern for another person. They proposed that gratitude has three functions: First, it can serve as a moral barometer because it provides a reading of the moral significance of a situation, signaling the recognition that one has been a beneficiary of another person’s benevolent actions. Second, it can act as a moral motive in that gratitude motivates the person to respond in a benevolent and prosocial way (e.g., see Tsang, in press). Finally, it also plays the role of a moral reinforcer because expressing one’s gratitude to a benefactor functions as a social reward and therefore encourages the benefactor to engage in other forms of prosocial behavior in the future. In addition to gratitude’s moral dimensions, a variety of studies have demonstrated that gratitude is positively related to well-being, most likely in a causal fashion.

Gratitude and Self-Report Measures of Subjective Well-Being

Several non-experimental studies have shown that gratitude is positively associated with subjective well-being. In a series of studies, McCullough et al. (2002) obtained positive associations between gratitude as an affective trait (i.e., a personality-based proneness to experience grateful emotion) and measures of positive emotionality, vitality, happiness, satisfaction with life, hope, and optimism. For example, their six-item self-report measure of the disposition to experience gratitude (the Gratitude Questionnaire, or GQ-6) was correlated at $r=0.53$ with Diener

et al.'s (1985) Satisfaction with Life Scale. They also found that the disposition to experience gratitude was negatively related to symptoms of depression and anxiety. Watkins et al. (2003), and more recently Adler and Fagley (2005), also found that longer and more sophisticated measures of gratitude as an affective trait were positively associated with measures of positive affect, happiness, and satisfaction with life.

Adler and Fagley's (2005) study in particular sheds some light on how gratitude might deter materialism and its negative effects on subjective well-being. Adler and Fagley created eight subscales for measuring various aspects of appreciation. Of those eight subscales, it was a subscale measuring appreciation for what one has in life (measured with items such as "I remind myself to think about the good things that I have in my life") that was most strongly related to subjective well-being (i.e., higher positive affect, lower negative affect, and higher satisfaction with life). This finding suggests that a chronic tendency to savor and appreciate the positive circumstances of one's existence (e.g., health, relationships, stable work, a privileged upbringing, etc.) – a trait that is in some ways the mirror opposite of materialism – may be a particularly important way to reduce materialistic strivings and their negative effects on subjective well-being.

McCullough et al. (2004) examined the associations of subjective well-being and the disposition to experience gratitude in a slightly different way: They correlated measures of subjective well-being (e.g., trait positive affect, negative affect, optimism, etc.) with the mean level of gratitude that participants reported in their daily mood reports over the course of several weeks. In both studies (grateful mood was measured for 21 consecutive days in Study 1 and 14 consecutive days in Study 2), satisfaction with life, positive affect, and optimism were positively related to the mean levels of grateful mood that people reported in their daily diaries. Depressive symptoms were negatively associated with the mean level of grateful mood in participants' daily mood reports. In other words, people with higher satisfaction with life, positive affect, and optimism, and lower depressive symptoms, tended to experience higher levels of gratitude in their daily mood on a day-to-day basis. Taken together, these four studies

provide strong support for the proposition that grateful people tend to report being happier, more optimistic, more satisfied with their lives, and less anxious and depressed than do their less grateful counterparts.

Gratitude and Subjective Well-Being as Measured by Alternatives to Self-Report

An important question about the relationship between gratitude and subjective well-being is whether the association is simply due to method variance that the predictor variables and criterion variables have in common. Fortunately, three studies have addressed this possibility by correlating measures of trait gratitude with non-self-report measures of subjective well-being.

First, Woodward (2000) found that a measure of gratitude as a personality trait was positively related to the pleasantness ratings that participants ascribed to affectively neutral words. This association indicates that grateful people tend to endow affectively neutral stimuli with more positive affect than do less grateful people. McCullough et al. (2002) circumvented the problem of shared method variance by asking participants' friends and relatives about the participants' levels of gratitude. Those informant reports were moderately correlated with the participants' self-reports of subjective well-being. In a third relevant study, Watkins et al. (2004) found that people with high scores on a personality measure of gratitude tended to recall positive autobiographical memories more readily than did people who scored lower on the gratitude measure. Therefore, it appears that the links of gratitude as an affective trait with measures of psychological well-being are not solely due to overlapping method variance: Chronically grateful people really do seem to have higher subjective well-being than do their less grateful counterparts.

Is the Relationship Between Gratitude and Subjective Well-Being a Causal One?

From several studies in which investigators have manipulated gratitude experimentally, it now seems clear that the effects of gratitude on subjective well-being are at least partially causal in nature. First, in a series of three studies, Emmons and

McCullough (2003) provided experimental evidence that gratitude leads to improvements in psychological well-being. Participants in their first experiment were instructed to record their emotions, physical symptoms, and health behaviors once a week for 10 consecutive weeks. They were also randomly assigned to one of three conditions in which they were asked to write about (a) things for which they were grateful, (b) hassles they encountered in everyday life, or (c) daily life experiences. Participants in the gratitude condition felt better about their lives overall and were more optimistic in their expectations for the upcoming week than were participants in the other conditions. They also had fewer physical complaints than participants in the hassles condition and spent more time exercising than did subjects in either of the other conditions.

In their second study, Emmons and McCullough (2003) had participants complete diary entries each day for 2 weeks rather than once a week. In this study, keeping track of things for which one was grateful on a daily basis led to higher levels of positive affect as well as a higher likelihood of having helped another person in some way than did a condition in which participants kept track of daily hassles or a condition in which participants kept track of ways in which they were better off than other people. In their third study, Emmons and McCullough (2003) studied a sample of individuals with neuromuscular disease. They found that participants who completed a daily gratitude writing condition experienced more positive affect, more sleep, better sleep quality, greater optimism, and a greater sense of connectedness to others than did individuals in a no-treatment control condition in which they simply completed daily self-report measures. In this third study, keeping a gratitude journal also influenced *spouses'* reports of participants' life satisfaction.

Emmons and McCullough's (2003) mediational analyses were highly consistent with the proposition that the gratitude inductions led to increases in grateful emotion, which in turn led to more generalized increases in subjective well-being. In contrast, there was rather weak support for the idea that the gratitude inductions led first to generalized increases in subjective well-being that in turn produced increases in gratitude specifically. Therefore, the Emmons–McCullough results affirm the idea

that gratitude, when manipulated experimentally, leads to more general increases in subjective well-being.

Other findings support the proposition that gratitude improves subjective well-being. In a laboratory study, Watkins et al. (2003) had participants engage in one of three experimental conditions: (a) thinking about someone to whom they felt grateful; (b) writing about someone to whom they felt grateful; or (c) writing a letter to someone to whom they felt grateful. All three of these experimental conditions led to greater short-term increases in positive affect and greater short-term reductions in negative affect than did a control condition (i.e., writing about the layout of one's living room).

In a final relevant study, McCraty et al. (1995) found that an experimental induction of appreciation, but not an experimental induction of anger, led to increases in high-frequency heart rate variability. The high-frequency band of the heart rate power spectrum is believed to reflect the input of the parasympathetic branch of the autonomic nervous system to the heart and is related to a variety of salutary mental and physical health outcomes (e.g., Hughes and Stoney, 2000). Thus, McCraty et al.'s findings suggest that the emotional experience of appreciation may bode well not only for psychological well-being but perhaps also for physical well-being.

Gratitude and Relational Well-Being

In summary, the existing research on gratitude as a chronic affective trait and as a more temporary emotion or mood state is quite consistent: Gratitude promotes positive affect, reduces negative affect, increases satisfaction with life, and may even lead to autonomic changes that are generally thought to promote health and well-being. But gratitude not only improves psychological well-being directly: It may also lead to changes in people's social behavior that could, in turn, influence their relational well-being.

For example, gratitude motivates people to act prosocially themselves (McCullough et al., 2001). Also, grateful people are rated as more generous and more helpful by others in their social networks (McCullough et al., 2002) and people who are made to feel grateful are more likely to return favors to their benefactors

(Tsang, in press). Moreover, people who keep gratitude journals are more likely to report having been helpful to other people than are participants who are assigned to other writing tasks (Emmons and McCullough, 2003). Finally, gratitude increases people's trust – particularly their trust in people with whom they are not well-acquainted (Dunn and Schweitzer, 2005). Trust, of course is essential for the deepening of social relationships. Taken together, these results provide a clear testimonial to the social effects of gratitude: Grateful people develop more positive perceptions of, and dispositions toward, those around them.

COULD GRATITUDE REDUCE MATERIALISM DIRECTLY?

Given the positive affective and social changes that gratitude fosters, it seems worthwhile to examine the possibility that gratitude can reduce materialism. Gratitude involves appraisals that one has experienced a positive outcome and is currently in the possession of valuable resources due to the benevolent, intentional, and effortful action of another person. Modern theorizing about affect–cognition relationships gives reason to suspect that the appraisals associated with an emotion like gratitude can guide interpretations of new situations so that they are viewed in a manner consistent with the activated emotion (e.g., Lerner and Keltner, 2000, 2001). For this reason, we expect that gratitude – either as a chronic affective trait or as a brief emotional or mood experience – should cause people to feel that their lives are imbued with the good will of other people. Therefore, people experiencing gratitude should be less prone to materialistic strivings because they will tend to view their lives overall as more secure and complete.

Empirical Research on the Gratitude–Materialism Relationship

Only one published study of which we are aware has examined the association of gratitude and materialism. This study's results indicate that the two constructs are indeed negatively related. McCullough et al. (2002) found that gratitude measured as an affective trait was negatively correlated with the subscales of two common self-report measures of materialism (Ger and

Belk, 1990; Richins and Dawson, 1992). The strongest negative association of gratitude with materialism ($r = -0.38$) involved a materialism subscale that measures the belief that material possessions lead to happiness. Presently, we provide some additional correlational data that indicate that gratitude as a personality trait is associated with two other established measures of materialistic striving.

More recently, Polak (2005) conducted a study in which participants completed a series of self-report questionnaires assessing their momentary feelings of gratitude and materialism. The sample consisted of 148 undergraduate participants (97 women; 51 men) enrolled in introductory psychology classes. Gratitude as an affective trait was measured with the GQ-6 (McCullough et al., 2002), a self-report measure consisting of six items. Participants also reported their momentary feelings of gratitude (that is, how they felt “right now”) using the self-report adjectives “grateful,” “thankful,” and “appreciative” on a 5-point Likert-type scale (1 = *very slightly or not at all*; 5 = *extremely*). Materialism was measured with the financial success subscale of the Revised Aspiration Index (Kasser and Ryan, 1993) and the Materialistic Desires Scale (Kasser, 2004), which consists of 10 items (e.g., “I wish I made more money”).

Polak’s (2005) data come from an experimental study in which participants were randomly assigned to mood-induction conditions (these laboratory manipulations were not successful so we do not consider them further). After the mood inductions, participants completed the GQ-6, the gratitude manipulation check questionnaire, and the two materialism measures. The two gratitude measures were correlated at a relatively low magnitude, $r(n = 148) = 0.30$, $p < 0.01$, as were the two materialism measures, $r(n = 148) = 0.20$, $p < 0.01$. The Gratitude Questionnaire (GQ-6) was negatively correlated with both the Materialistic Desires Scale $r(n = 148) = -0.24$, $p < 0.01$ and the financial success scale, $r(n = 148) = -0.19$, $p < 0.05$. The measure of current grateful emotion was correlated $r(n = 148) = -0.16$, and -0.041 (*ns*), respectively, with the Materialistic Desires Scale and the financial success measure of materialistic strivings. In sum, correlational data generated by the study showed that gratitude as a personality trait has a small negative

association with materialistic striving, although the state measure of gratitude was not correlated with the measures of materialism. There were no gender effects.

SUMMARY AND DIRECTIONS FOR FUTURE RESEARCH

People who place too much emphasis on materialistic pursuits – people for whom obtaining wealth and material possessions takes priority over meaningful relationships, community involvement, and spirituality – tend to be unhappy people. In general, they are dissatisfied with their lives, they tend to experience high levels of negative emotion and low levels of positive emotion, and they are at risk for a variety of mental disorders. In contrast, grateful people – people who readily recognize the many ways that their lives are enriched by the benevolent actions of others – tend to be extraordinarily happy. They experience high levels of positive emotion, low levels of negative emotion, are generally satisfied with their lives.

In other words, the hedonic profiles of materialistic people and grateful people are mirror opposites. Is this just a coincidence, or is there a deeper connection between materialism and gratitude? We think the latter is the case: Gratitude and materialism are negatively associated, and we suspect that their connection could be a causal one.

The first cause for our suspicion that gratitude might reduce materialism is Lerner and Keltner's (2000, 2001) work on affect–cognition relationships. Lerner and Keltner have shown that emotions such as anger and fear can produce changes in judgment and social cognition. Jackson et al. (2001) applied Lerner and Keltner's thinking to gratitude, demonstrating that gratitude causes people to make stable, controllable causal attributions regarding an individual who has enjoyed good fortune. In other words, gratitude causes people to focus on other individuals as causal agents, and benevolent ones at that: Recall Dunn and Schweitzer's (2005) finding that the experience of grateful emotion leads people to become more trusting toward third parties (particularly people with whom they are not well acquainted). In this vein, we think that a specific emotion like

gratitude – because it is associated with appraising one’s own positive outcomes as being due to the intentional, benevolent, costly, valuable behavior of other people – might also cause people to view their own lives as more secure, safe, and fulfilling. In other words, gratitude may produce the sense that one is surrounded by beneficent causal agents. As a result (we suspect), gratitude may obviate the need for materialistic striving as a way of coping with existential insecurity (Kasser, 2002).

A second cause for our suspicion that gratitude might reduce materialism is an evolutionary analysis of gratitude and its functions. Since Trivers (1971), evolutionary theorists have suspected that gratitude functions as a signal and reinforcer of strong, beneficial social connections. Humans experience gratitude because this emotion helps us to know to whom we should turn in future times of need and because it motivates us to treat our benefactors with kindness in the future. In other words, gratitude alerts us that there are people out there with our well-being in mind and it motivates us to deepen our own reservoirs of social capital through reciprocation. And indeed, the existing research shows that grateful people do tend to reciprocate favors (Tsang, in press) and that they tend to be more generous and supportive of people in their lives (McCullough et al., 2002). As a result, we suspect that grateful people do not simply perceive more social support in their lives: We think they *really do* have more social support. Because of these large reservoirs of social support, grateful people may not be plagued by the insecurity that materialistic striving is often intended to alleviate. Thus, grateful people may spend less of their time striving after wealth and material possessions and more of their time on more meaningful pursuits, such as leading a life of purpose and cultivating quality relationships.

In light of the negative associations between gratitude and materialism (McCullough et al., 2002; Polak, 2005), examining the association of gratitude as an acute affective experience with actual materialistic behavior in the laboratory seems particularly worthwhile at this time. Researchers conducting experimental work along these lines might try to induce gratitude using methods developed by McCraty et al. (1995), Watkins et al. (2003), Jackson et al. (2001), or Dunn and Schweitzer

(2005). Other mood induction techniques for inducing gratitude might include the film/story technique (i.e., watching films or reading stories designed to cause gratitude) or a gift procedure in which subjects receive an unexpected gift to show the experimenter's appreciation for participating in the experiment (Westermann et al., 1996). Research using exchange games might be useful as well (e.g., Tsang, in press).

In addition to laboratory studies, daily diary or experience sampling studies could shed light on whether momentary experiences of gratitude help to deter materialistic strivings in people's daily lives. Moreover, although it may be the case that gratitude reduces materialistic strivings, it is also possible that materialistic strivings inhibit gratitude. This too could be explored in laboratory research as well as in daily diary or experience sampling studies.

The prioritizing of material wealth over other values is a significant social problem. By increasing satisfaction with life, increasing people's sense of security, and giving them the distinct sense that other people care about them, gratitude might help to alleviate the materialistic striving and its negative effects. Thus, we think the link between gratitude and materialism is a connection well worth exploring in future research on happiness.

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