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MATERIALISM AND DIMINISHED WELL-BEING: EXPERIENTIAL AVOIDANCE AS A MEDIATING MECHANISM

TODD B. KASHDAN AND WILLIAM E. BREEN
George Mason University

Being preoccupied with the pursuit of money, wealth, and material possessions arguably fails as a strategy to increase pleasure and meaning in life. However, little is known about the mechanisms that explain the inverse relation between materialism and well-being. The current study tested the hypothesis that experiential avoidance mediates associations between materialistic values and diminished emotional well-being, meaning in life, self-determination, and gratitude. Results indicated that people with stronger materialistic values reported more negative emotions and less relatedness, autonomy, competence, gratitude, and meaning in life. As expected, experiential avoidance fully mediated associations between materialistic values and each dimension of well-being. Emotional disturbances such as social anxiety and depressive symptoms failed to account for these findings after accounting for shared variance with experiential avoidance. The results are discussed in the context of alternative, more fulfilling routes to well-being.

Americans are flooded with cultural messages, whether television shows on the lives of the rich and famous, advertising, or conversations with peers, that the pursuit and possession of material goods, income, and wealth is the route to increase well-being and quality of life. However, for decades, psychologists have suggested that individuals preoc-

Correspondence concerning this article should be addressed to Todd B. Kashdan, Department of Psychology, MS 3F5, George Mason University, Fairfax, VA 22030. E-mail: tkashdan@gmu.edu

cupied with materialism,¹ who tend to define their self-concept and success in life by the quantity and quality of their extrinsic possessions may be vulnerable to diminished well-being (Fromm, 1976; Maslow, 1954; Deci & Ryan, 2000; Kasser, 2002). This seems intuitive because an over-reliance on materialistic gains and associated social approval as a basis for self-worth leads individuals to be inherently vulnerable to uncontrollable factors, and subsequent self-esteem and affective instability (Crocker & Wolfe, 2001; Kernis, Cornell, Sun, Berry, & Harlow, 1993). Among other factors, more materialistic individuals are vulnerable to fluctuations in other people's opinions and attention, overestimations of objective rewards with acquisitions failing to increase well-being as much as anticipated (Wilson & Gilbert, 2005), and being trapped on a "hedonic treadmill" with a continual need for more materialistic consumption to maintain previous levels of perceived success and well-being (Brickman & Campbell, 1971; Lykken & Tellegen, 1996).

Research shows that when materialistic values direct one's behavior, individuals are at increased risk for diminished well-being and psychopathology and become less concerned with the welfare of others (Cohen & Cohen, 1996; Kasser & Ryan, 1993; Richins & Dawson, 1992; Schwartz, 1996; Sheldon & Kasser, 1995; Sirgy, 1998). These findings are even more robust when comparisons are made with individuals who tend to make committed action toward more intrinsic goals such as personal growth, making strong and meaningful connections with other people, work satisfaction, and being a moral person (Diener & Seligman, 2004; Sheldon, Elliot, Kim, & Kasser, 2001). Despite an extensive amount of research on the inverse relation between materialism and well-being, studies examining the mechanisms responsible are minimal.

The current study examines the role of experiential avoidance as a potential mechanism to explain relations between materialism and well-being. Experiential avoidance is the unwillingness to be in contact with negatively evaluated thoughts, feelings, and bodily sensations and

1. The terms materialism and materialistic values are used interchangeably in this paper. By definition, people high in materialism have strong materialistic values. Materialism is defined as a strong desire for wealth and physical possessions. For people who are very materialistic, the satisfaction of materialistic pursuits are a gauge of personal accomplishment and often take precedence over other intangible goals related to relationship development, spirituality, and care for one's psychological and physical well-being. Strong materialistic values reflect a predominant orientation toward the purchase, consumption, and possession of wealth and physical goods. As a value, the importance of material goods directs a person's life choices and influences appraisals of self and others. If materialistic values are important to a person then the failure to satisfy relevant goals such as obtaining a particular good can expectedly lead to discomfort and self-denigration.

strategic attempts to alter the form, frequency, or situations that elicit these experiences even when this struggle causes harm (Hayes, Strosahl, & Wilson, 1999). Negative experiences and psychological suffering are common, natural components of being human. Furthermore, humans have a limited amount of self-regulatory resources to be used at any given point in time (Muraven & Baumeister, 2000). Thus, spending considerable time and energy to manage, control, and avoid negatively evaluated private events leads to the subsequent delay of an approach-based lifestyle, including movement toward personally meaningful goals. Experiential avoidance appears to be the toxic process transforming normal negative thoughts, feelings, and bodily sensations into disorder (Eifert & Forsyth, 2005; Kashdan, Barrios, Forsyth, & Steger, 2006). Living a life in fear of these unwanted negative private events leads to the chronic, inflexible use of avoidance-based strategies such as suppression and indulgence. Ironically, instead of providing relief and prevention, suppression only serves to increase undesired thoughts and feelings (under illusory control; Wegner, 1994). In addition, excessive attempts to control these unwanted private events is physically and emotionally draining leading to less self-control and impression management (Vohs, Baumeister, & Ciarocco, 2005) and less authenticity in social interactions and life choices (John & Gross, 2004).

Excessive attempts to avoid internal experiences contributes to the depletion of both self-regulatory resources and psychological flexibility. These adverse consequences may extend to the quality of how individuals live their life:

In the world of overt behavior, this means that long term desired qualities of life (i.e., values) take a backseat to more immediate goals of being right, looking good, feeling good, defending a conceptualized self, and so on. People lose contact with what they want in life, beyond relief from psychological pain. Patterns of action emerge and gradually dominate in the person's repertoire that are detached from long term desired qualities of living. Behavioral repertoires narrow and become less sensitive to the current context as it affords valued actions. Persistence and change in the service of effectiveness is less likely. (Hayes, Luoma, Bond, Masuda, & Lillis, 2006, p. 7)

As experiential avoidance interferes with movement toward intrinsically valued directions in life, it is proposed to increase susceptibility to the more extrinsic value orientation of materialism. A core element of materialism is an external orientation in which positive self-regard and self-acceptance is contingent on possessions, money, power, and image (see Kasser, 2002). In addition, materialism involves excessive attach-

ments and continuous judgments of the quantity and value of possessions. More materialistic individuals evaluate themselves and others by their acquisition of money, wealth, and possessions (Kasser, 2002; Sirgy, 1998). For materialistic individuals, thoughts such as "I would be happier if I owned nicer things" may be fused with and define the self (self-as-content; Hayes et al., 1999). Thus, more materialistic individuals may live their lives amidst continuous evaluative judgments. The possibility of being psychologically flexible and living life fully present in each unique moment as it unfolds would be minimized to the degree that efforts and energies are preset in the service of a seemingly endless series of terminal acquisitions (the classic hedonic treadmill). Finally, materialism is related to strategic attempts to avoid making unfavorable impressions (avoidance motive) as opposed to attempts to create a positive, strong image and self-presentation (approach motive). Specifically, greater materialism is associated with an unwillingness to appear weak or vulnerable to others (e.g., in need of support or attention) and is not associated with attempts to appear strong and socially attractive (Christopher, Morgan, Marek, Keller, & Drummond, 2005). Thus, more materialistic individuals tend to demonstrate avoidance based social motives and self-protective and preventive mindsets. Unfortunately, when people are hyper-focused on avoiding unwanted internal experiences and negative life events this may lead to excessive self-evaluations and increased psychological vulnerability in response to inevitable moments of suffering, failure, rejection, and loss experienced throughout life. In addition, experiential avoidance and related motives to avoid and manage impressions of weakness may interfere with the ability to be present and fully engaged in each moment as it unfolds with potential novelty, challenge, and reward.

Experiential avoidance is conceptually related to Baumeister's (1990) model of self avoidance (i.e., escape from self theory). Both concepts attempt to explain the psychological processes involved in an unwillingness to be in contact with potentially aversive or negatively evaluated thoughts, feelings, and behaviors. Drawing on self-awareness, self-discrepancy, and attribution literature, the escape from self theory was presented initially to explain suicide attempts and has been extended to address other self-destructive and self-defeating behaviors (Baumeister, 1991). This model suggests that people experience aversive states of self-awareness when they believe their current life situation (e.g., accomplishments, social standing) falls below personal and social expectations and desires. The disappointment of falling short of what is wanted or expected is accompanied by a redistribution of attentional resources to personal weaknesses, deficiencies, and failures. People are motivated to escape unwanted, negative self-directed thoughts and feelings and

often recognize that an obliteration of self-awareness and selfhood may reduce their psychological pain. One strategy is to narrow attention to immediate environmental stimuli (e.g., material possessions) and minimize meaningful thoughts about the self. This narrowing of attention is consistent with cognitive deconstruction, or a shift towards less meaningful and less integrated forms of thinking, and seems to function as an attempt to avoid or escape high levels of self-awareness and related, unwanted emotional states. In addition, cognitive deconstruction is characterized by concrete and rigid thinking, the absence of long-term goals, and a decreased sense of meaning. All of these processes appear to be consistent with the behavioral consequences of chronic experiential avoidance. Thus, the escape from self theory appears to dovetail with the concept of experiential avoidance and seems relevant to an examination of materialism and psychological well-being.

There is a common thread in materialism and experiential avoidance in that neither is inherently adverse and both may be beneficial in the short-term. The acquisition of increased income, wealth, and material possessions may lead to short-term feelings of pleasure and experiential avoidance may be negatively reinforced by short-term feelings of relief (although see Gross, 1998, and Wegner, 1994, for more in depth discussion). However, when rigidly applied, materialistic values and experiential avoidance are both proposed to move individuals further away from the elements that lead to fulfilling lives including personal growth, satisfying and meaningful work and relationships, and feeling a sense of freedom and personal control in one's choices and actions (Deci & Ryan, 2000; Sheldon et al., 2001).

THE PRESENT RESEARCH

In the current study, we examined whether materialism was inversely related to various indices of well-being. We used a comprehensive set of constructs to replicate and extend prior work including the (a) frequency of negative and positive emotions, (b) appraising one's life as having a strong sense of meaning and purpose, (c) strong feelings of relatedness, autonomy, and competence (components of self-determination theory; Deci & Ryan, 2000), and (d) the frequency and intensity of gratitude in life (perhaps the parent of all virtues; McCullough, Kilpatrick, Emmons, & Larson, 2001). Our selection of well-being constructs was designed to represent the separate but related hedonic and eudaimonic models of well-being that dominate the literature (Ryan & Deci, 2001). The hedonic approach is characterized by a high frequency of positive emotions, low frequency of negative emotions, and positive life appraisals. This approach was captured with our measures of emo-

tional well-being. To extend this approach, we also examined relations between materialism and measures of social anxiety and depressive symptoms (indices of negative emotions or emotional disturbances). The eudaimonic approach is characterized by an emphasis on attempting to maximize one's potential and achieve meaning and purpose in life. Attaining fulfillment can be defined by strong global feelings of meaning and purpose, as well as cultivating and maintaining satisfying relationships (relatedness), feeling a sense of personal control in one's actions (autonomy), and feeling a sense of efficacy in mastering personal and situational demands (competence). In addition, gratitude is consistent with this aspect of well-being and seems relevant to a discussion of materialism. Gratitude refers to the pleasant, mindful awareness of being the recipient of personal benefits that are acknowledged to be the result of someone else's actions (McCullough et al., 2001). The experience of gratitude requires recognition that other people have a positive influence and are valuable assets in navigating the complex routes of everyday living. Gratitude is an other-focused emotion that requires a mindset that expands beyond the confines of materialistic values to an emphasis on the importance of people, relationships, and intangible entities (e.g., spirituality). Gratitude is associated with less social comparisons and a greater focus on strengthening social bonds (e.g., Emmons & McCullough, 2003; Seligman, Steen, Park, & Peterson, 2005). By including markers of hedonic and eudaimonic well-being traditions, we were able to conduct an extensive examination of how materialism is associated with psychological functioning.

More importantly, we tested the hypothesis that experiential avoidance mediates associations between materialistic values and diminished emotional well-being, meaning in life, self-determination, and gratitude. These tests were compared to an alternative model in which (a) materialism relates to well-being as a function of emotional disturbances defined by excessive social anxiety and depressive symptoms, and (b) the mediational effects of experiential avoidance can be attributed to shared variance with these emotional disturbances. Support for this alternative model would suggest that the proposed toxic process of experiential avoidance may be subsumed by the more robust literature on social anxiety and depressive symptoms.

METHOD

PARTICIPANTS

Participants were 144 undergraduate students from a large, Mid-Atlantic University. There were 113 females (78.5%) and 31 males. Individuals

reported demographic information on ethnicity as follows: 77 (53.5%) Caucasian, 18 (12.5%) Asian, 12 (8.3%), Hispanic, 8 (5.6%) African American, 6 (4.2%) Middle-Eastern, 8 (5.6%) identifying as mixed or other, and 15 who did not answer this question. The mean age was 23.78 years ($SD = 7.62$). The ethnic and age composition of our sample is similar to the overall university population. Participants in the current study were a subsample of a larger research project. All individuals who received our measures of materialism and experiential avoidance were included in this study.

PROCEDURE

Participants were recruited from undergraduate students enrolled in psychology courses via an online website of all studies being conducted in the psychology department. Participants who signed up for this study were asked to complete an anonymous web-based survey for course credit. They were not asked for any personally identifying information. Thus, all data were confidential and the internet survey company used (PsychData) maintains the highest security standards, including encrypted data transfer, password-required access to data, and a secure survey environment (answers were written on server with no traces on individual computers and individual IP addresses were not collected).

MEASURES

For each of the measures listed, descriptive statistics and alpha coefficients are reported in Table 1.

Materialism. The 15-item *Material Values Scale* (Richins, 2004) was used to measure the degree to which individuals were preoccupied with materialistic values to guide their actions, attitudes, self-concept, and goal development and efforts (e.g., "Some of the most important achievements in life include acquiring material possessions;" "I'd be happier if I could afford to buy more things;" "I like to own things that impress people"). Higher scores reflect greater materialism. Participants responded to items with a 1 to 9 scale.

Experiential Avoidance. The 9-item *Acceptance and Action Questionnaire* (AAQ; Hayes et al., 2004) assesses experiential avoidance. Items on the AAQ assess tendencies to make negative evaluations of private feelings, thoughts, and sensations (e.g., "anxiety is bad"), unwillingness to be in contact with these events and the need to alter the form or frequency of them (e.g., "I rarely worry about getting my anxieties, worries, and feelings under control"), and the inability to take action because of them (e.g., "I am able to take action on a problem even if I am uncertain what is

TABLE 1. Means, Standard Deviations, and Internal Consistency Coefficients for, and Zero-Order Relations between All Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Materialism	—	.39***	.25**	-.07	-.23**	-.22**	-.23**	-.23**	-.23**	.28***	.33***
2. Experiential Avoidance	—	—	.59***	-.40***	-.36***	-.45***	-.52***	-.62***	-.42***	.59***	.59***
3. Negative Emotions	—	—	—	-.38***	-.39***	-.35***	-.52***	-.56***	-.29***	-.50***	.71***
4. Positive Emotions	—	—	—	—	.41***	.49***	.55***	.54***	.45***	-.39***	-.43***
5. Presence of Meaning	—	—	—	—	—	.30***	.39***	.30***	.42***	-.23**	-.38***
6. Relatedness	—	—	—	—	—	—	.54***	.65***	.44***	-.53***	-.38***
7. Competence	—	—	—	—	—	—	—	.66***	.56***	-.59***	-.54***
8. Autonomy	—	—	—	—	—	—	—	—	.39***	-.59***	-.59***
9. Gratitude	—	—	—	—	—	—	—	—	—	-.37***	-.35***
10. Social Anxiety	—	—	—	—	—	—	—	—	—	—	.50***
11. Depressive Symptoms	—	—	—	—	—	—	—	—	—	—	—
M	68.48	32.53	18.75	35.27	25.61	45.37	31.60	35.31	36.68	20.04	9.62
SD	16.99	6.67	6.28	6.70	6.21	6.65	5.48	6.53	5.13	12.66	8.56
α	.85	.63	.88	.85	.90	.77	.72	.72	.77	.93	.90

Note. N = 144. ** $p < .01$. *** $p < .001$.

the right thing to do"). The psychometric properties of this scale have been well-established in clinical and nonclinical samples. Higher scores reflect greater experiential avoidance and less psychological flexibility. Participants responded to items with a 1 to 7 scale.

Emotional Well-Being. The 20-item *Positive and Negative Affect Schedule* (PANAS; Watson, Clark, & Tellegen, 1988) assesses the general tendency to experience energized positive emotions (10 items; e.g., "proud," "alert") and negative emotions (10 items; e.g., "jittery;" "ashamed"). The PANAS has been shown to have excellent psychometric properties and is one of the most widely used measures of dispositional affect. Higher scores reflect greater positive and negative emotions, respectively. Participants responded to items with a 1 to 5 scale.

Meaning in life. The 5-item *Meaning in Life Questionnaire–Presence* subscale (Steger, Frazier, Oishi, & Kaler, 2006) is a face-valid measure of cognitive appraisals that life is purposeful and meaningful (e.g., "I have a good sense of what makes my life meaningful"). The psychometric properties of this scale have been shown to be acceptable with a multi-trait multi-method matrix (Steger et al., 2006). Higher scores reflect the presence of greater meaning in life. Participants responded to items with a 1 to 7 scale.

Self-Determination. The 21-item *Basic Psychological Needs Scale* (La Guardia, Ryan, Couchman, & Deci, 2000) assesses the degree to which individuals' feel a sense of Relatedness (8 items; e.g., "People in my life care about me"), feeling a sense of meaningful connectedness to others; Competence (6 items; e.g., "Most days I feel a sense of accomplishment from what I do"), feeling a sense of efficacy in one's activities; and Autonomy (7 items; e.g., "I feel like I am free to decide for myself how to live my life"), feeling that one's choices and activities are self-determined. Higher scores reflect feeling a greater sense of relatedness to others, more competence, and greater autonomy, respectively. Participants responded to items with a 1 to 7 scale.

Gratitude. The 6-item *Gratitude Questionnaire–6* (McCullough, Emmons, & Tsang, 2002) assesses general feelings of thankfulness and gratitude toward perceived benefactors (e.g., "I have so much in life to be thankful for"). Higher scores reflect greater and more frequent feelings of gratitude. Participants responded to items with a 1 to 7 scale.

Social Anxiety. The 19-item *Social Interaction Anxiety Scale* (SIAS; Mattick & Clarke, 1998) assesses general fears and avoidance behaviors concerning social interactions (e.g., distress while initiating and maintaining conversations, anticipatory anxiety of interpersonal situations). Higher scores reflect greater social anxiety symptoms. Participants responded to items with a 0 to 4 scale.

Depressive Symptoms. Severity of depressive symptoms was assessed with the 21-item *Beck Depression Inventory-II* (BDI-II; Beck, Steer, & Brown, 1996). The scale has excellent psychometric properties and can reliably distinguish between clinical and general community samples. Higher scores reflect greater depressive symptoms. Participants rated items with a 0 to 3 scale.

RESULTS

CORRELATIONS AMONG DISPOSITIONAL MEASURES

Zero-order correlations were computed to determine whether the tendency to be preoccupied with materialistic values was related to greater experiential avoidance and diminished emotional well-being, meaning in life, and self-determination. As shown in Table 1, results indicated that materialistic values were related to more experiential avoidance, social anxiety, depressive symptoms, and global negative emotions ($r_s = .28$ to $.39$, $p_s < .001$) and less relatedness, competence, autonomy, gratitude, and presence of meaning in life (r_s from $-.22$ to $-.23$, $p_s < .01$). Experiential avoidance was significantly, positively related to negative emotions, social anxiety, and depressive symptoms (all $r_s = .59$, $p_s < .001$) and inversely related to all dimensions of well-being ($r_s = -.36$ to $-.62$, $p_s < .001$).

EXPERIENTIAL AVOIDANCE AS A MEDIATOR OF MATERIALISM AND WELL-BEING

Linear regression analyses were computed to examine whether inverse relations between materialism and various well-being outcomes were mediated by experiential avoidance. Following the guidelines of Baron and Kenny (1986), we examined whether the requisite conditions of mediation were met. The first condition, requiring materialism (independent variable) to be associated with well-being outcomes (dependent variables) was supported by significant relations with all dimensions of well-being (with the exception of global positive affect; see Table 1). Specifically, materialism was positively related to negative emotions and negatively related to relatedness, competence, autonomy, gratitude, and presence of meaning in life ($r_s = |.22|$ to $|.25|$). The second condition, requiring materialism (independent variable) to be associated with experiential avoidance (mediator), was supported by the correlation reported in Table 1 ($r = .39$). The third condition, requiring experiential avoidance (mediator) to be associated with well-being outcomes (dependent variables) was supported via significant correlations

TABLE 2. Linear Regression Models for Testing the Final Step of Experiential Avoidance as Mediator

Mediation Models	β	<i>b</i>	<i>SE b</i>	Sobel <i>z</i>
DV = Negative Emotions				
Experiential Avoidance	.58***	.56	.07	4.24***
Materialism	-.02	.01	.03	
DV = Presence of Meaning				
Experiential Avoidance	-.31***	-.29	.08	-2.93**
Materialism	-.11	-.04	.03	
DV = Relatedness				
Experiential Avoidance	-.43***	-.43	.08	-3.66**
Materialism	-.06	-.02	.03	
DV = Competence				
Experiential Avoidance	-.50***	-.41	.06	-4.04***
Materialism	.04	-.01	.03	
DV = Autonomy				
Experiential Avoidance	-.62***	-.61	.07	-4.34***
Materialism	.01	.00	.03	
DV = Gratitude				
Experiential Avoidance	-.40**	-.30	.06	-3.54***
Materialism	-.07	-.02	.03	
DV = Social Anxiety				
Experiential Avoidance	.56***	1.06	.14	4.91***
Materialism	.06	.05	.06	
DV = Depressive Symptoms				
Experiential Avoidance	.54***	.70	.09	4.21***
Materialism	.11	.06	.04	

Note. *N* = 144. **p* < .05. ***p* < .01. ****p* < .001. All *p*-values were two-tailed. A significant Sobel *z* indicates that the mediator fully or partially accounts for the influence of an independent variable on a dependent variable.

reported in Table 1. Specifically, experiential avoidance was positively related to negative emotions and negatively related to relatedness, competence, autonomy, gratitude, and presence of meaning in life (*r*s = |.36| to |.62|).

The final condition of mediation involved demonstrating a significant reduction in the relations between materialism (independent variable) and well-being outcomes (dependent variables) after accounting for the variance attributable to experiential avoidance (mediator). The conservative Sobel test of mediation (Baron & Kenny, 1986; MacKinnon, Warsi, & Dwyer, 1995) was used to examine whether indirect paths from materialism to each well-being outcome through experiential avoidance were significantly different than zero. A significant Sobel *z* indicates that the mediator fully accounts for the influence of an independent variable on a dependent variable (i.e., the indirect path). The results of the final steps of mediation are shown in Table 2. Using this method, experiential

avoidance accounted for significant relations between (1) materialism and greater negative emotions ($z = 4.24, p < .001$), and (2) materialism and less relatedness, competence, autonomy, gratitude, and presence of meaning in life ($z_s > -2.92, p_s < .05$). Overall, the data support the role of experiential avoidance as a mediator of relations between materialism and various well-being outcomes.

Social anxiety and depressive symptoms represented emotional disturbances that could also be related to materialism. As an adjunct to the prior analyses, we examined whether experiential avoidance mediated relations between materialism and emotional disturbances. As shown in Table 1, the first three conditions of mediation were met with materialism showing positive relations with social anxiety and depressive symptoms ($r_s = .28$ and $.33$) and experiential avoidance showing positive relations with social anxiety and depressive symptoms (both $r_s = .59$). As shown in Table 2, experiential avoidance fully mediated relations between materialism and social anxiety ($z = 4.91, p < .001$) and depressive symptoms ($z = 4.21, p < .001$).

SPECIFICITY TESTS WITH EMOTIONAL DISTURBANCES

Our final set of analyses examined whether relations between materialism and well-being outcomes were mediated by social anxiety and depressive symptoms and if so, whether this was a function of experiential avoidance. As shown in Table 1, the initial steps of mediation were met. Thus, we tested the final step and found that significant relations between materialism and negative emotions, relatedness, autonomy, competence, and gratitude were mediated by social anxiety ($z_s > |2.79|, p_s < .05$) and depressive symptoms ($z_s > |2.65|, p_s < .05$). Social anxiety symptoms failed to mediate relations between materialism and presence of meaning in life ($p_s > .05$). These findings suggest that emotional disturbances account for general relations between materialism and well-being. However, experiential avoidance fully mediated the relations between materialism and social anxiety and depressive symptoms (see Table 2). After controlling for experiential avoidance, partial correlations between materialism and social anxiety, $pr = .07$, and depressive symptoms, $pr = .13$, were near-zero. In contrast, experiential avoidance retained unique positive relations with materialism after controlling for social anxiety, $pr = .29$, and depressive symptoms, $pr = .26$ ($p_s < .005$). Thus, the mediation effects of emotional disturbances on relations between materialism and well-being were attributable to experiential avoidance.

DISCUSSION

This study examined whether materialism was associated with different dimensions of well-being and whether experiential avoidance mediated these relations. There was evidence that strong materialistic values were positively associated with negative emotions and inversely associated with relatedness, autonomy, competence, gratitude, and the presence of meaning in life. Our findings converge with other studies showing that materialism may be detrimental to well-being (e.g., Richins & Dawson, 1992; Sheldon et al., 2001; Sirgy, 1998). To extend this line of work, our research tested the hypothesis that inverse relations between materialism and well-being are a function of experiential avoidance. Supporting this hypothesis, materialism had a near-zero relation with all dimensions of well-being after controlling for variance attributable to experiential avoidance. Social anxiety and depressive symptoms were also shown to mediate relations between materialism and well-being. However, these emotional disturbances appeared to be related to materialism due to shared variance with experiential avoidance.

Further examination of the correlates of materialism suggest that the adverse effects were largely on domains of well-being that represent other value orientations including developing significant and meaningful relationships with other people (relatedness), a sense of competence and mastery over environmental demands (competence), being able to take action in congruence with core interests and values (autonomy), and being mindful of the benefits received from other people and building positive experiences and social bonds in the process (gratitude). These data fit with prior work showing that materialism is inversely related to care and concern for the welfare of other people including less prosocial behavior and more selfishness and narcissism (see Kasser, 2002 for review). The negative correlates and consequences of materialism do not appear to end with the individual, as this value orientation seems contraindicative of positive relationships and communities (which enable positive experiences and individuals to thrive). There is value in examining how materialism directly exerts its effects in social contexts and what factors reduce any adverse influences.

An important extension of prior work on materialism and well-being is the role of experiential avoidance as a mediating mechanism. Tendencies to control and avoid unpleasant thoughts, feelings, and bodily sensations are predictive of the development and exacerbation of anxiety-related pathology, chronic pain, substance abuse, eating disordered behavior, self-injurious behaviors, stigma and prejudice, and a wide variety of psychological and social dysfunctions (see Hayes et al., 2006 for meta-analysis). In addition, experiential avoidance appears to disrupt

positive experiences and events in everyday life (Kashdan & Steger, 2006). This was the first study to extend the associated problems of this internal, chronic, inflexible struggle to a preoccupation with acquiring money, wealth, and material possessions as a life aspiration. As value orientations that guide behaviors, materialism and self-acceptance have been shown to lead to opposite outcomes, with self-acceptance being associated with greater self-actualizing tendencies, vitality, and less emotional disturbances (Kasser & Ryan, 1993).

Therapies using mindfulness and acceptance technologies have been generally effective in helping individuals engage in a more approach-oriented and accepting compared to an avoidance-based lifestyle. This includes being in contact with each moment as it unfolds without judgment and without trying to alter or avoid unwanted thoughts and feelings (Baer, 2003; Eifert & Forsyth, 2005; Hayes et al., 1999). One of the core processes is to encourage people to be willing to take action in valued directions irrespective of the content and valence of thoughts and feelings. The alternative is for individuals to wait until negative private events disappear before they begin to live the life they want to live. The problem with the latter approach is that negative private events are inevitable, in part, because human beings cannot consistently control all aspects of life including biochemistry, unforeseen life events and stressors, other people, and so on. Additionally, the pursuit of personal goals and meaning in life may, at times, only be possible by recognizing and accepting negative emotions and experiences (e.g., anxious feelings; Emmons, 1999; Jung, 1964; Maslow, 1968). Furthermore, human beings may learn and grow more from negative than positive experiences (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Thus, not only is the internal, incessant struggle to avoid negatively evaluated private events futile, but it may have serious consequences for personal values that serve as a compass to guide an individual's (intra- and inter-personal) behavior. As an alternative to symptom and function based outcomes, it will be interesting to test whether mindfulness and acceptance-based intervention efforts modify individuals' life value orientations by generating movement toward more intrinsic and growth-oriented orientations and away from extrinsic and materialistic (hedonistic) directions.

Fitting with theoretical conceptions of experiential avoidance (e.g., Hayes et al., 1999), this process could not be reduced to the form and content of emotional disturbances. Initial mediation effects for social anxiety and depressive symptoms on relations between materialism and well-being were found to be eliminated after controlling for shared variance with experiential avoidance. This was a conservative test of whether other plausible mechanisms could account for the putative ef-

fects of experiential avoidance (i.e., specificity). Our findings raise questions about specificity when interpreting prior evidence of social anxiety as a mediator of relations between materialism on emotional well-being (Christopher & Schlenker, 2004). Our data support models of experiential avoidance as at least one of the toxic processes in emotional disturbances (Eifert & Forsyth, 2005; Kashdan et al., 2006).

Although our findings shed light on how experiential avoidance plays a role in understanding links between materialism and well-being, several issues need to be addressed in future work. Despite a number of significant findings and effect sizes of moderate magnitude, our findings should be considered preliminary due to the small sample size. Our sample was also limited to a college sample. Most importantly, the findings were based on a correlational, cross-sectional design. Causal inferences cannot be tested with the current data. As suggested by other researchers (Deci & Ryan, 2000), more materialistic individuals may be more susceptible to diminished well-being, emotion disturbances, and experiential avoidance because of their inability to satisfy materialistic needs and desires. Alternatively, the psychological inflexibility inherent to rigid experiential avoidance might explain the development of materialistic values, diminished well-being, and the relative abandonment of more intrinsic life aspirations. Use of longitudinal designs may further elucidate potential relations among these processes and the importance of materialism and experiential avoidance in well-being and emotional distress.

Despite the use of competing mediation models and support for experiential avoidance as a mechanism linking materialism to diminished well-being, there are other potential candidates that were not measured. Appraisal models may provide a useful foundation for further inquiry. Beliefs that wealth and certain acquisitions have the potential to enhance a person's social attractiveness and status are likely to be an important index of insecurity and source of vulnerability. Similarly, a competitive, compared to a cooperative social orientation, can prevent a person from being content with their current status as strivings for achievement and approval in a social hierarchy are relatively insatiable. After all, a competitive orientation would lead to continual activity until dominance is achieved and if it is achieved, then this position would have to be protected. Social status appraisals and social competitive orientations are both preoccupied states that are the antithesis of mindful engagement and living in congruence with intrinsic goals and values. If materialism is believed to be an avenue to achieve gains in social status and dominance in competition with others, then these may be important mechanisms in the route to diminished well-being and important targets of intervention efforts. Most of the work on materialism and well-being has

been correlational and there is a need for experimental tests of proposed causal chains. The experimental induction of different value orientations on behavioral decisions, self-appraisals, and interpersonal evaluations can be a useful starting point. For example, people primed to focus on materialistic values and their importance in the social world would be expected to create more superficial impressions of strangers based on information about their wealth and possessions. This would be expected to interfere with prosocial behaviors, openness to experiences, and responsiveness, with subsequent adverse influences on likability and interpersonal closeness. These experimental procedures can be compared to alternative causal chains to examine whether the experimental manipulation of social outcomes, negative or positive, influence personal identification with materialism. Until experimental procedures are adopted, it remains to be seen whether materialism causes diminished well-being.

The purpose of this study was to shed further light on possible mechanisms that might account for relations between materialism and diminished well-being. The results suggested that relations between materialism and greater negative emotions and diminished self-determination, gratitude, and meaning and purpose in life were eliminated after controlling for experiential avoidance. Moreover, alternative mechanisms that might account for materialism-well-being relations (i.e., social anxiety and depressive symptoms) were shown to be a function of shared variance with experiential avoidance. Being preoccupied with the extrinsic value orientation or life aspiration of materialism has clear, psychological costs and it is hoped that this study initiates further examination of how, why, and when these effects occur. Research is needed on whether reductions in experiential avoidance lead to less reliance on materialism and a greater focus on values that lead to thriving at individual and social levels of analysis.

REFERENCES

- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*, 125-143.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Baumeister, R.F. (1990). Suicide as escape from self. *Psychological Review, 97*, 90-113.
- Baumeister, R.F. (1991). *Escaping the self: Alcoholism, spirituality, masochism, and other flights from the burden of selfhood*. New York: Basic Books.
- Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. (2001). Bad is stronger than good. *Review of General Psychology, 5*, 323-370.

- Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Beck Depression Inventory manual* (2nd ed.). San Antonio, TX: Psychological Corporation.
- Brickman, P., & Campbell, D.T. (1971). Hedonic relativism and planning the good society. In M.H. Appley (Ed.), *Adaptation level theory: A symposium* (pp. 287–302). New York: Academic Press.
- Christopher, A. N., Morgan, R. D., Marek, P., Keller, M., & Drummond, K. (2005). Materialism and self-presentational styles. *Personality and Individual Differences*, 38, 137–149.
- Christopher, A.N., & Schlenker, B.R. (2004). Materialism and affect: The role of self-presentational concerns. *Journal of Social and Clinical Psychology*, 23, 260–272.
- Cohen, P., & Cohen, J. (1996). *Life values and adolescent mental health*. Mahwah, NJ: Erlbaum.
- Crocker, J., & Wolfe, C.T. (2001). Contingencies of self-worth. *Psychological Review*, 108, 593–623.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.
- Diener, E., & Seligman, M. E. P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5, 1–31.
- Eifert, G.H., & Forsyth, J.P. (2005). *Acceptance and commitment therapy for anxiety disorders: A practitioner's treatment guide to using mindfulness, acceptance, and values-based behavior change strategies*. Oakland, CA: New Harbinger
- Emmons, R.A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York: The Guilford Press.
- Emmons, R.A., & McCullough, M.E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84, 377–389.
- Fromm, E. (1976). *To have or to be?* New York: Continuum Publishing.
- Gross, J.J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2, 271–299.
- Hayes, S.C., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes, and outcomes. *Behaviour Research and Therapy*, 44, 1–25.
- Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An experiential approach to behavior change*. New York: Guilford Press.
- Hayes, S.C., Strosahl, K., Wilson, K.G., Bissett, R.T., Pistorello, J., Toarmino, D. et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, 54, 553–578.
- John, O.P., & Gross, J.J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72, 1301–1333.
- Jung, C.G. (1964). *Man and his symbols*. New York: Dell Publishing.
- Kashdan, T.B., & Steger, M.F. (2006). Expanding the topography of social anxiety: An experience sampling assessment of positive emotions and events, and emotion suppression. *Psychological Science*, 17, 120–128.
- Kashdan, T.B., Barrios, V., Forsyth, J.P., & Steger, M.F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy*, 9, 1301–1320.
- Kasser, T. (2002). *The high price of materialism*. Cambridge, MA: MIT Press.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410–422.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential cor-

- relates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Kernis, M. H., Cornell, D. P., Sun, C., Berry, A., & Harlow, T. (1993). There's more to self-esteem than whether it's high or low: The importance of stability of self-esteem. *Journal of Personality and Social Psychology*, 65, 1190–1204.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79, 367–384.
- Lykken, D. T., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186–189.
- MacKinnon, D. P., Warsi, G., & Dwyer, J. H. (1995). A simulation study of mediated effect measures. *Multivariate Behavioral Research*, 30, 41–62.
- Maslow, A. (1954). *Motivation and personality*. New York: Harper.
- Maslow, A. H. (1968). *Toward a psychology of being* (2nd ed.). New York: Van Nostrand.
- Mattick, R.P., & Clarke, J.C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36, 455–470.
- McCullough, M.E., Emmons, R.A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82, 112–127.
- McCullough, M.E., Kilpatrick, S., Emmons, R.A., & Larson, D. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127, 249–266.
- Muraven, M., & Baumeister, R.F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247–259.
- Richins, M.L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research*, 31, 109–219.
- Richins, M.L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19, 303–316.
- Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review Psychology*, 52, 141–166.
- Schwartz, S.H. (1996). Values priorities and behavior: Applying of theory of integrated value systems. In C. Seligman, J. M. Olson, & M. P. Zanna (Eds.), *The psychology of values: The Ontario symposium*, Vol. 8 (pp. 1–24). Hillsdale, NJ: Erlbaum.
- Seligman, M.E.P., Steen, T.A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60, 410–421.
- Sheldon, K. M., Elliot, A. J., Kim, Y., & Kasser, T. (2001). What's satisfying about satisfying events? Comparing ten candidate psychological needs. *Journal of Personality and Social Psychology*, 80, 325–339.
- Sheldon, K. M., & Kasser, T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology*, 68, 531–543.
- Sirgy, M.J. (1998). Materialism and quality of life. *Social Indicators Research*, 43, 227–260.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53, 80–93.
- Vohs, K.D., Baumeister, R.F., & Ciarocco, N. (2005). Self-regulation and self-presentation: Regulatory resource depletion impairs impression management and effortful self-presentation depletes regulatory resources. *Journal of Personality and Social Psychology*, 33, 632–657.

- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS. *Journal of Personality and Social Psychology, 54*, 1063–1070.
- Wegner, D.M. (1994). Ironic processes of mental control. *Psychological Review, 101*, 34–52.
- Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. *Current Directions in Psychological Science, 14*, 131–134.