

MATERIALISM AND PSYCHOSOCIAL MALADJUSTMENT:  
WHAT ACCOUNTS FOR THE RELATION?

by

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This dissertation examined what may account for materialism's relations with psychosocial maladjustment (PM). Materialism is a multi-faceted construct that may differentially involve behavioral tendencies or beliefs and values. Facets of materialism involving beliefs/values are embedded in Unmitigated Self-Interest (USI), a multi-faceted worldview orientation broader than materialism. Study 1 explored whether facets of materialism had distinct patterns of correlations with different aspects of PM and whether relations between facets of materialism and aspects of PM are restricted to facets of materialism alone or are due to broader effects of USI. Study 2 examined whether facet(s) of USI beyond materialist beliefs/values were also associated with PM. Study 3 used longitudinal analyses to examine temporal relations among materialism, USI, and various aspects of PM, examining whether facets of materialism or/and USI were antecedents and/or consequents of PM.

In Study 1, undergraduate participants ( $n = 839$ ) completed measures of USI, PM indicators, and seven facets of materialism. Multiple regressions indicated that each facet of materialism demonstrated a distinct pattern of correlations with aspects of PM, suggesting that it is useful to treat each facet as a separate construct. Hierarchical regressions indicated that beyond materialist beliefs/values, USI uniquely contributed to PM. In Study 2, members of a community sample ( $n = 610$ ) completed a 13-facet USI scale and various PM indicators. Hierarchical regression analysis indicated that beyond materialist beliefs/values, Machiavellianism and hedonism were likely to be associated with PM.

In Study 3, members of a community sample ( $n = 610$ ) completed measures of facets of materialism, USI, and PM indicators at two time points. Results indicated that relations between materialism and PM are generally bi-directional. However, somewhat more support existed for materialism as antecedent to rather than consequent of PM. Moreover, relations between materialist values/beliefs as the antecedent and PM as the consequent appeared to be partially accounted for by USI, which contributed additional predictiveness of PM. Furthermore, relations between USI and PM appeared to be unidirectional: USI was found to be the antecedent rather than the consequent of PM. Implications for future research are discussed.

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## CHAPTER I

### INTRODUCTION

Human life and human history depend on the material world. Humans reside in the material world, and need material resources to survive. They use material resources to create shelter and to make tools. Storing up resources can enhance security for addressing future needs. Humans also imbue material objects with meaning, using them to symbolize agreements between and relationships among people, and to evoke or record important memories of people and events cherished. Humans use material objects to communicate and to store knowledge.

However, as much as the material world plays an essential role in human affairs, an excessive focus on the material world has also been criticized for creating problems in modern society (Kasser & Kanner, 2005). Materialism is characterized by a relatively high emphasis on material objects and external attributes (Shen-Miller & Saucier, 2009), and its association with psychosocial maladjustment is well documented, ranging from personal problems to interpersonal problems.

On a personal level, excessive materialism is associated with low well-being (Kasser, 2002), lower quality of life (Kasser & Ryan, 1993, 1996, 2001), low life satisfaction (Sharpe, 2000), low self-actualization and vitality (Kasser & Ryan, 1993, 1996), low self-esteem (Chan & Joseph, 2000), low happiness and satisfaction with life (for reviews, see Burroughs & Rindfleisch, 2002, and Kasser, 2002; Sirgy, 1998, Wright

& Larsen, 1993), low frequency of experiencing positive emotion (Sheldon & Kasser, 1998), substance use such as tobacco, alcohol, and drugs (Williams, Cox, Hedberg, & Deci, 2000), increased risk of developing various forms of personality disorders (Cohen & Cohen, 1996; Kasser & Ryan, 1993, 1996), and physical symptoms (Kasser & Ryan, 1996).

On an interpersonal level, excessive materialism is associated with problematic relationships. For example, it correlates with conduct disorders and low social productivity among adolescents (Kasser & Ryan, 1993). Highly materialistic individuals are more likely to isolate themselves socially and to be overly dependent on, avoidant of others, or passive-aggressive towards others (Cohen & Cohen, 1996; for reviews, see Kasser, 2002). Highly materialistic individuals also tend to believe that others have malevolent intentions (Cohen & Cohen, 1996), to form instrumental friendships with others (Schwartz, 1994; for reviews, see Kasser, 2002), to choose to get ahead at the cost of others (Sheldon, Sheldon, & Osbaldiston, 2000), and to be high in Machiavellianism (McHoskey, 1999). In addition, highly materialistic individuals are less likely to be generous with others (Belk, 1984, 1985; Richins & Dawson, 1992) or to engage in pro-social activities (McHoskey, 1999; Schwartz, 1994).

As such, it is important to examine the root of materialism's relations with psychosocial maladjustment. Understanding what accounts for materialism's associations with maladjusted outcomes will not only increase public awareness about the issue, but also will provide a basis for policy makers in their efforts to establish prevention or intervention programs promoting people's mental health and interpersonal relationships



in a consumer society. For example, if mental health and interpersonal relationship problems are rooted in materialism per se, then regulations on materialistic pursuits or warnings on the danger of such pursuits may be warranted. If, however, such problems are not specific to materialistic pursuits, but are due in general to a self-serving, exploiting, ceaselessly consuming orientation that tends to neglect the welfare of a broader world, then efforts promoting alternatives to that orientation are needed.

This dissertation research was guided by two overarching purposes. The primary purpose was to address the research question of: “*What* may account for materialism’s relations with psychosocial maladjustment” in the context of recognizing that (a) materialism is a multi-faceted construct that may differentially involve behavioral tendencies or beliefs and values (Shen-Miller & Saucier, 2009; discussed below), and that (b) facets of materialism that involve beliefs and values are partially embedded in Unmitigated Self-Interest, a broader, multifaceted belief-orientation for which materialism represents only one facet (Saucier, 2000; discussed below). Specifically, I examined whether materialism’s relation with psychosocial maladjustment is directly accounted for by materialism alone, or for some facets of materialism that involves beliefs and values (discussed below), whether these relations are really due to Unmitigated Self-Interest. Given that materialism is a multi-faceted construct, which facet(s) is most likely to account for the relation of materialism with psychosocial maladjustment? If Unmitigated Self-Interest does directly contribute to materialism’s relations with psychosocial maladjustment, are other facets of Unmitigated Self-Interest beyond materialism also related to maladaptive psychological tendencies? A second

objective was to examine the temporal relations among Unmitigated Self-Interest, materialism and psychosocial maladjustment, and whether either materialism or Unmitigated Self-Interest (or both) are indeed the antecedents of psychosocial maladjustment.

In the next chapter, I will first discuss definitions of materialism and its multi-facets as they were operationalized in this research, as well as how materialist beliefs and values are related to Unmitigated Self-Interest, a multi-faceted construct broader than materialist beliefs and values. I will then review previous conceptual and empirical accounts of materialism's associations with psychosocial maladjustment in which different temporal directions between the two were implicated. Whereas some research has focused on examining psychosocial maladjustment as antecedent to materialism, others have focused on examining materialism as antecedent to psychosocial maladjustment. In particular, in the context of materialism being seen as antecedent of psychosocial maladjustment, I will present previous conceptual and empirical work in which either materialist beliefs and values alone or Unmitigated Self-Interest is conceptualized as the source accounting for the relation. In chapters III, IV, and V, I will examine these hypotheses empirically, while taking into account the multi-faceted nature of the construct of materialism and the broader construct, Unmitigated Self-Interest, in which materialism is embedded.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Materialism as a Multi-Faceted Construct

Even though materialism has been treated as a coherent, unitary construct that could be referenced by a single measure (e.g., Belk, 1984, 1985; Goldberg, Gorn, Peracchio, & Bamossy, 2003; Richins & Dawson, 1992), Shen-Miller and Saucier (2009) suggested that the definitions of materialism in the literature involve at least the following two level of analyses: (a) Materialism as behavioral tendencies, and (b) Materialism as cognitive constructs.

#### *Behavioral Tendencies*

Materialism is often conceptualized as *behavioral tendencies* that manifest a person's attachment to material objects. According to Belk (1984, 1985), materialism represents a person's relationship with material objects, which he argues can be inferred from a person's personality traits, such as levels of possessiveness, nongenerosity, and envy<sup>1</sup>, a high level of the three of which theoretically all are associated with a high level of attachment to material objects. In other words, Belk treated these three personality traits (i.e., possessiveness, nongenerosity, and envy) as indicators of materialism. By Belk's definition, materialism is a continuum referencing "the importance a consumer attaches to worldly possessions" (p.291). Specifically, he suggested that at the highest

levels, the *ownership* of material objects becomes the core of materialists' lives and then provides the greatest source of satisfaction and dissatisfaction. However, Belk did not clarify whether materialism under such a definition refers to a person's *cognitive endorsement* (discussed later) of the desirability of material objects, or his/her *behavioral tendencies* to attach to material objects, the latter of which may be related to, but should be distinct from, the former (c.f., Ahuvia & Wong, 2002). Intriguingly, a closer examination of Belk's materialism scale indicates that Beck's definition is likely to be measuring *behavioral tendencies*, as most of the items concern typical affective reactions (e.g., "I enjoy...", "I get very upset if..."; Ahuvia & Wong, 2002). Under such an analysis of treating materialism as behavioral tendencies towards material objects, materialism may be associated with affective processes that are more automatic, rapid, and effortless (cf., Epstein, 1998).

### *Cognitive Constructs*

Materialism can also be conceptualized as *cognitive constructs* that are associated with processes capable of being more deliberative and effortful. These constructs concern a person's cognitive capacities on a higher level, such as understanding one's thoughts and feelings, or formulations of one's view about the world or important goals and value priorities. Materialism from this perspective is treated as cognitive constructs rather than behavioral tendencies. Analyses of materialism as cognitive constructs most often involve either treating materialism as (a) *prescriptive beliefs* or (b) *descriptive beliefs*.

### *Prescriptive Beliefs*

Some researchers treat materialism as prescriptive beliefs that could be labeled as materialist values. From this perspective, materialism is often conceptualized as beliefs that involve judgments endorsing the desirability of external objects such as material objects and money, which provide guidance for an individual's behaviors. For example, Richins and Dawson (1992) described materialism as a *value* priority. They suggested that materialism represents "a set of centrally held beliefs about the importance of possessions in one's life" (p. 308). They suggested that a high level of materialism as a value priority influences three aspects of a person's life. First, as in Belk's (1984, 1985) definition, material things provide a source of satisfaction and influence the way a person defines happiness (acquisition as the pursuit of happiness). Second, the ownership and acquisition of possessions becomes a goal that directs the person's behaviors and structures his/her life (acquisition centrality). Third, the ownership and acquisition of possessions also serves as an indicator of success (possession-defined success).

A broader expansion of the definition of materialism as prescriptive beliefs can be seen in Kasser and Ryan's (1993, 1996) work. In their investigations of the contents of people's goals, Kasser and Ryan's definitions of materialistic values correspond to Richins and Dawson's concept of centrality. However, instead of emphasizing either the ownership or the acquisition of possessions, Kasser and Ryan further emphasized the extrinsically based foci of materialistic goals, whether it be financial success (money; Yamauchi & Templer, 1982), social recognition (fame), or appealing appearance (image).

All three of these foci are commonly considered as important goals in a consumer society (Kasser & Ryan, 1996).<sup>2</sup>

### *Descriptive Beliefs*

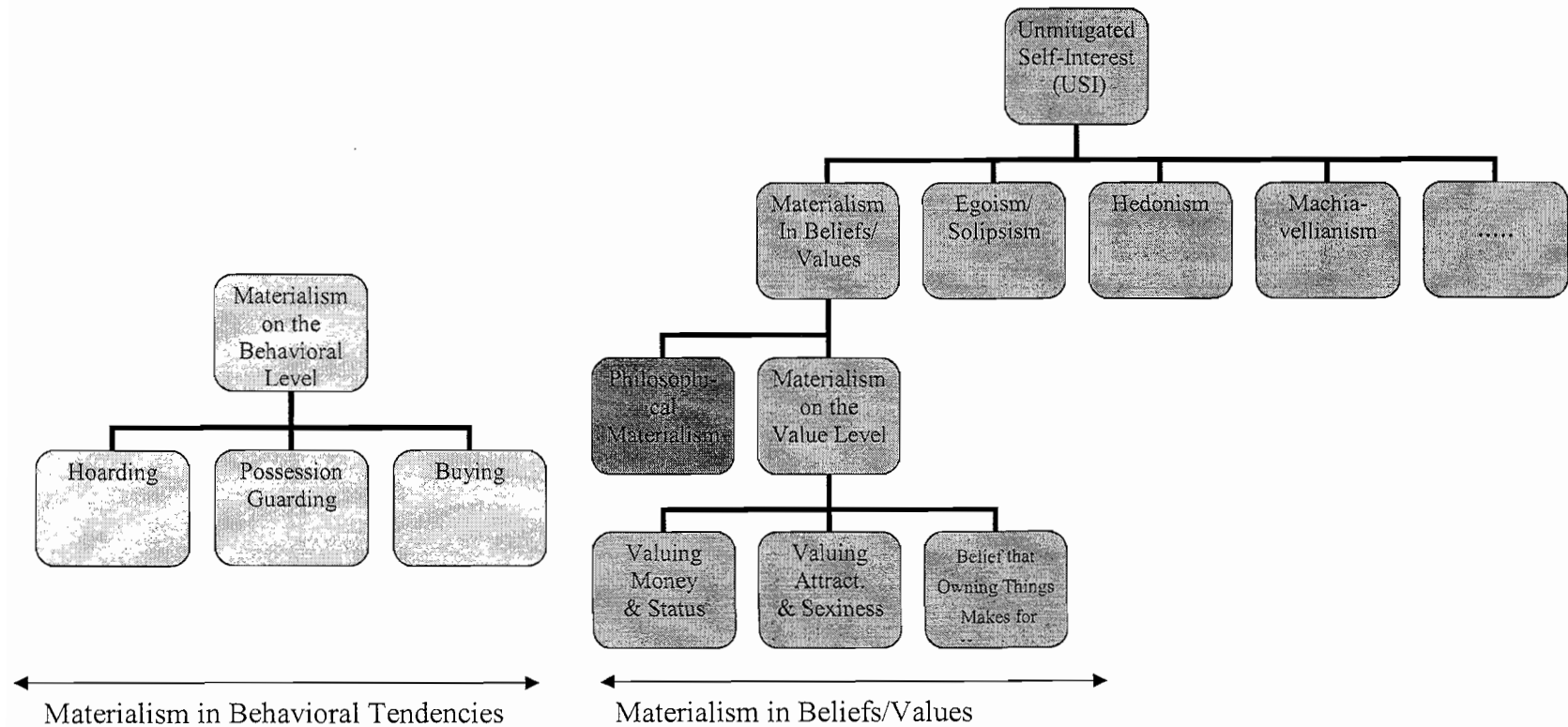
Materialism can also be conceptualized as descriptive beliefs. Originally, materialism referred to the *philosophical point of view* that material objects and their movements are the only existing things (see, e.g., Lange, 1925). This might be called “philosophical materialism” or “physicalism” (Saucier, 2004). Materialism from this perspective can be conceptualized as descriptions involving descriptive assumptions about what the world is like, similar to descriptive schema described by Epstein (1998), or descriptive beliefs described by Rokeach (1973; cf., Duckitt, Wagner, du Plessis, & Birum, 2002; see also Shen-Miller, 2009, for discussion on the distinction between beliefs involving descriptions and beliefs involving judgments).

### *Seven Facets of Materialism*

In an effort to integrate the diverse definitions of materialism in previous literature, Shen-Miller and Saucier (2009) suggested that materialism may differentially operate on three different levels: (1) the philosophical level, (2) the value level, and (3) the behavioral level. The philosophical level of materialism involves *descriptive beliefs* about the world, and refers to ontological assumptions that material objects are the only existing entities. The value level of materialism (i.e., materialist values) involves *prescriptive beliefs* (i.e., values), which make judgments about what is desirable. Specifically, materialism on the value level endorses the desirability of entities that are

commonly treated as desirable in a capitalistic society, such as material objects and money. Materialism on the behavioral level, on the other hand, involves *behavioral tendencies* to attach to material objects. Unlike materialism on the philosophical and value levels, behavioral tendencies may operate without explicit endorsement of descriptive or prescriptive beliefs.

Across these three levels, Shen-Miller and Saucier (2009) identified seven facets of materialism in previous measures: (a) Possession Guarding, (b) Hoarding, (c) Buying, (d) Believing Owning Things Makes for Happiness, (e) Valuing Money and Status, (f) Valuing Attractiveness and Sexiness, and (g) Philosophical Materialism. Whereas Hoarding, Buying, and Possession Guarding involve *behavioral tendencies*, and were conceptualized as operating on the behavioral level, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness and Philosophical Materialism are *cognitive constructs* that involve *beliefs and values*. Specifically, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness involves prescriptive beliefs (i.e., values) were conceptualized as operating on the value level. Philosophical Materialism was conceptualized as operating on the philosophical level. Factor analysis on a mixture of items from multiple scales of materialism (e.g., Belk, 1984, 1985; Richins & Dawson, 1992) supported that these seven types should be treated as distinct facets of materialism (Shen-Miller & Saucier, 2009). If materialism is multi-faceted (see Figure 1) as suggested by Shen-Miller and Saucier (2009), it raises an empirical question: If relations with the



*Figure 1*  
Facets of Materialism in Relation to Facets of Unmitigated Self-Interest.



material world (e.g., a relatively high emphasis on objects and external attributes) account for materialism's relation with psychosocial maladjustment, at least partly, which aspects of such relations (i.e., which facets of materialism) are likely to function as the source.

### Unmitigated Self-Interest: A Construct

#### Broader than Materialism

Based on a lexical study that used factor analysis to investigate 266 English nouns ending in “-ism,” Saucier (2000) found that materialist beliefs and values were among the “isms” most associated with a social-attitudes factor he labeled as Unmitigated Self-Interest. This factor has also been replicated in lexical studies conducted in Romanian (Krauss, 2006) and Chinese (Saucier, Zhou, & Shen-Miller, 2009). This factor is composed of a group of ism terms, such as Machiavellianism, Ethnocentrism, and Hedonism, that overall represent a self-serving, exploiting, and competitive approach to the environment that focuses on maximizing one's self interest, for which Materialistic Values and Philosophical Materialism represents only two of several facets. Further, an unpublished content analysis by Saucier on the terms loading on Unmitigated Self-Interest indicated that Unmitigated Self-Interest as a broad belief-orientation may be multi-faceted in nature; some isms might be lumped together to represent several clusters of the construct: *Animalism* involves a tendency to deny the “sacredness” of anything relevant to human nature and any social values or moral rules. Humans are viewed as nothing more than animals that are driven by instincts and desires. In some way this

domain is associated with a tendency to reject morality, and hence might be conceptualized as synonymous to *amoralism*. *Commercialism* and *Materialist Values* involve prescriptive beliefs that treat external entities such as money, material objects, and physical attractiveness as the most desired objects. Hedonism involves a prescriptive belief that treats what is enjoyable by the senses as the most desired objects.

*Egoism/Solipsism* refers to an orientation towards self-centeredness. It involves either a tendency to see the self as the only existing reality, or a tendency to believe in pure self-interest as a worthy motivation. *Elitism/Plutocracy*, *Antiwelfarism* and *Absolutism/Monarchism* all involve a tendency to either disapprove or be explicitly against any possibility (e.g., such as the existence of a social system or institute) that an equal/even distribution of welfare/benefits/interest/power among people would be promoted, or to support a hierarchical social structure in which power is distributed disproportionately.

*Ethnocentrism* represents a tendency to favor in-group members and to assign superiority to one's own group over other outsiders. In an unpublished study with data from mainland China (Saucier et al., 2009) ethnocentrism was observed, however, to form its own factor separate from Unmitigated Self-Interest. *Exploitation of Nature* and *Machiavellianism* both involve an orientation to aggressively utilizing others (including people and the natural world) as means to accomplish one's end. Whereas Exploitation of Nature involves treating the natural world as a target of exploitation, Machiavellianism involves treating people as targets of exploitation, specifically, resorting to manipulation (e.g., deceiving and flattering) to obtain one's self-interest and operating under the

assumption that others have evil intentions. *Physicalism* involves a descriptive, ontological view about the constitution of the world, which is believed to consist of purely material objects and their movement (as opposed to ideas).

Based on Saucier's (2000) findings, we can raise some empirical questions: Is materialism's relation with psychosocial maladjustment accounted for by materialism alone? Or for facets of materialism that involve beliefs and values (i.e., materialism on the values level and philosophical level), is materialism's relation with psychosocial maladjustment accounted for by something deeper and broader as represented by Unmitigated Self-Interest? If the latter, which facets (see Figure 1) of Unmitigated Self-Interest are also likely to be related to psychosocial maladjustment?

#### Materialism and Psychosocial Maladjustment:

##### What Accounts for the Relation?

As pointed out by Richins and Dawson (1992), the relation between materialism and psychosocial maladjustment is complex and is likely to be bi-directional. Indeed, in explaining materialism's relations with psychosocial maladjustment, materialism is often either conceptualized as an outcome (e.g., Abramson & Inglehart, 1995; Chang & Arkin, 2002; Cohen & Cohen, 1996; Inglehart & Abramson, 1994; Kasser, 2002; Kasser, Ryan, Zax, & Sameroff, 1995; Rindfleisch, Burroughs & Denton, 1997; Williams, 2000; Solberg, Diener & Robinson, 2004 ) or an antecedent (Kasser, 2002) of psychosocial maladjustment.

*Materialism as the Consequent*

One line of research accounts for materialism's relation with maladaptive psychological tendencies by conceptualizing materialism as a consequent of maladjusted experiences or development. A shared idea is that people who have maladjusted experiences in the past, and/or are vulnerable to psychological well-being problems, are likely to become materialistic as a way to compensate. As such, materialism is viewed as a coping mechanism for problems that already exist. Perhaps materialistic people are those who are already unhappy to begin with (Solberg, Diener, & Robinson, 2004). For example, based on Baumeister and Boden's (1994) perspective, it is likely that material objects provide a way for people to turn away from aversive self-awareness (e.g., negative self-evaluations). Tice and Bratavsky's (2000) work further suggests that because material objects are visible and provide tangible signs of rewards and success, they are likely to make people feel better temporarily and hence attract unhappy people.

In his efforts to integrate this line of research, Kasser (2002) suggested that people naturally have the tendency to attach to material objects, as evidenced in the human body's requirement for a minimum level of material comfort. However, he theorized that when people grow up in an environment in which a sense of insecurity is salient due to, for example, economic deprivation (Abramson & Inglehart, 1995; Inglehart & Abramson, 1994), or deprivation of psychological needs that may be fundamental to their well-being, such as competence, autonomy, or belonging (see Deci & Ryan, 2000), people tend to develop an excessive emphasis on the ownership and acquisition of material objects as a means of compensation (Kasser, 2002). Materialism's relation with well-being deficits in

such a context is conceptualized under the view that materialism is a coping mechanism arising in conjunction with unfulfilled needs for safety and security.

Much research indicates a relation between materialism and experiences of insecurity. Some researchers investigated the relation between materialism and family experience. Kasser and colleagues (Kasser, Ryan, Zax, & Sameroff, 1995; Williams, 2000) found that teenagers who have less nurturing mothers tend to be more materialistic. Rindfleisch, Burroughs, and Denton (1997) found that young adults whose parents were separated or divorced endorsed higher levels of materialistic values, as measured by Materialistic Values Scale developed by Richins and Dawson (1992), and more compulsive buying problems (see also Roberts, Tanner, & Manolis, 2005). As much as these findings are consistent with the speculation that materialism is a response to insecurity rooted in a person's unhealthy family experience, one cannot exclude the possibility that what connects parental qualities that bring insecurity to their children (e.g., tendency to get divorced, tendency to have parenting styles that are less nurturing) with children's materialistic tendencies might be better or additionally explained by genetic predisposition. For example, it is possible that what leads parents to be less nurturing and more divorce-prone is a tendency to be more materialistic. An interesting, but confounding issue raised here (beyond the scope of this paper), is whether materialism is heritable. As such, to examine the hypothesis that insecurity experience contributes to the formation of high materialism, research should examine environments that are beyond the direct impact of a person's biological parents.

Indeed, some research has examined the relation between materialism and economic deprivation, which tends to result in feelings of insecurity. For example, teenagers or adolescents who were from socioeconomically disadvantaged environments were found to be more materialistic than those from upper economic strata (Cohen & Cohen, 1996; Rindfleisch et al., 1997). In a cross-cultural work, Inglehart and Abramson (1994; Abramson & Inglehart, 1995) also found that poor economic conditions were related to higher materialistic aspirations. Specifically, they found that, compared with people who lived in richer countries or were raised in generation with better economic conditions, people who lived in poor countries or were brought up in poor economic times were likely to have a strong sociopolitical orientation to endorse values such as maintaining a strong economy, than to endorse values such as freedom, environmental beauty, and civility.

A few empirical studies exist in support of the causal link between a sense of insecurity and materialism. For example, Kasser and Sheldon (2000) found that the arousal of a sense of insecurity induced by thought about one's mortality (so one's perception of survival was threatened) led people to have a stronger tendency to aspire towards materialistic goals and to consume. Chang and Arkin (2002) found that individuals in whom a sense of self-doubt was induced expressed higher levels of materialistic values than individuals in a control group, as measured by Richins and Dawson's (1992) materialistic value scale. Based on Kasser's theory (2002), all these studies indirectly indicated the possibility that a sense of insecurity may result in a higher

level of materialism as a form of compensation, although more empirical studies are needed to support this view.

### *Psychosocial Maladjustment as the Consequent*

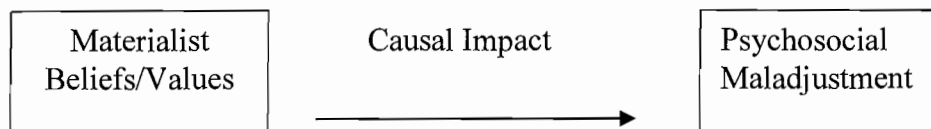
Another line of research examined psychosocial maladjustment as the consequent and materialism as the antecedent. In the following section, I will present two hypotheses regarding what may account for materialism's relation with psychosocial maladjustment in this direction. Specifically, both hypotheses focus on examining the relation between *materialist beliefs and values* and psychosocial maladjustment: Whereas a "crowding-out hypothesis" suggests that the relation is directly accounted for by materialist beliefs and values (Kasser, 2002), a "hidden-hand hypothesis" suggests that the seeming relation between materialist beliefs/values and psychosocial maladjustment may not be directly accounted for by materialist beliefs/values per se, but by a larger, self-serving worldview orientation in which materialist beliefs/values are embedded (Lane, 2000). This larger, self-serving worldview orientation is also captured in Saucier's (2000) concept of Unmitigated Self-Interest (see Figure 1).

### *The Crowding-Out Hypothesis*

In explaining the relation between materialist beliefs/values as the antecedent and psychosocial maladjustment as the consequent, one approach theorizes that the relation is directly accounted for by materialist beliefs/values. One hypothesis under this framework is as follows: Given that each individual only has a limited amount of time and attention, an overly high emphasis on one's relation with the material world as characterized by

materialist beliefs/values may “crowd out” other areas in life that require one’s attention in order to maintain an optimal level of well-being (Kasser, 2002). In such a relation, materialist beliefs/values are conceptualized as the cause of psychosocial maladjustment (for a graphic presentation, see Figure 2).

Kasser (2002) suggested that besides (a) needs for safety, security, and sustenance, which could be fulfilled by material comfort, human beings have other needs to be fulfilled, including (b) needs for competence, efficacy, and self-esteem, (c) needs for connectedness, and (d) needs for autonomy and authenticity. The latter three needs are identical to the three basic needs proposed in Self-Determination Theory (Deci & Ryan, 2000): Needs for (a) competence, (b) relatedness, and (c) autonomy. Based on Self-Determination Theory, the three needs “specify innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being” (Deci & Ryan, 2000, p. 229). As such, Kasser (2002) argued that a high focus on materialistic pursuits



*Figure 2*

The Crowding-Out Hypothesis: Materialist Beliefs/Values as  
Directly Accounting for Materialist Beliefs/Values’  
Relation with Psychosocial Maladjustment



would hinder one from pursuing the fulfillment of these three needs, and hence lead to psychosocial maladjustment.

Kasser (2002) speculated that there are two reasons why materialist beliefs/values may steer a person away from fulfilling esteem needs. First, materialistic individuals are more likely to have contingent self-esteem. In other words, they tend to hinge their self-worth on extrinsic rewards or attributes, such as money, social status, and appearance. Second, materialists are more likely to engage in television watching, and to be exposed to advertisements that tend to create a discrepancy that can never be reduced between an individual's ideal goal and her/his reality (e.g., Rahtz et al., 1988, 1989; Richins, 1991; Sirgy et al, 1998). This irresolvable discrepancy tends to diminish self-esteem.

As for relatedness needs, Kasser (2002) suggested that materialistic pursuits are likely to be in conflict with the pursuit of healthy relationships. As such, people who are materialistic are likely to neglect or even sacrifice their relations with others. This is similar to Lane's (2000) proposition that companionship is crucial to happiness and life satisfaction, whereas materialistic acquisition is not. Lane suggested that by focusing on materialistic pursuits, people go after the wrong things. Further, materialistic individuals are more likely to "objectify" other people, to maintain instrumental relationships with others (B. Schwartz, 1994), or even to use a Machiavellian approach to manipulate others to get what is beneficial to the self (McHoskey, 1999). They are also likely to exploit, and to compete rather than cooperate (Sheldon et al., 2001). However, as will be discussed later, findings on the relations between materialism and a tendency to objectify, exploit, and compete with others are all cross-sectional in nature. And at this point it is unclear

whether a tendency to objectify, exploit, and compete with others is a unique characteristic of materialists, or whether it is a characteristic that is shared by people who are high on Unmitigated Self-Interest in general.

Further, Kasser (2002) suggested that materialist beliefs/values are likely to undermine the fulfillment of the need for autonomy for the following three reasons. First, materialistic beliefs/values are likely to lead people to focus on external rewards. This is supported by research findings that individuals high on materialist beliefs/values tend to have an extrinsic motivation (as opposed to intrinsic motivation), focusing on the external rewards obtainable in a situation (Kasser, 2002; Sheldon, Elliot, Kim, & Kasser, 2001). Such a focus on external rewards has been found to impede intrinsic interest in activities in which one is involved, which according to Self-Determination Theory is a necessary component for a sense of autonomy (Deci, 1971; Deci & Ryan, 1985, 1991; Deci, Koestner, & Ryan, 1999). Second, materialist beliefs/values are likely to increase people's public self-consciousness (Schroeder & Dugal, 1995), which is related to well-being deficits such as depression, neuroticism, and narcissism (Gibbons, 1990). Third, materialist beliefs/values are likely to lead people to engage in activities such as TV-watching and shopping, which are likely to undermine intrinsic motivation and decrease one's sense of autonomy (Delle Fave & Bassi, 2000; Kubey & Csikszentmihalyi, 1990). Based on these three needs, Kasser (2002) suggested that materialistic pursuits impede the fulfillment of autonomy needs. His assertion is supported by research showing that materialistic goals were associated with introjected regulation (i.e., anxiety avoidance, self-esteem maintenance; Richins, 1994; Srivastava, Locke, & Bortol, 2001).

Kasser's theory as described above is consistent with a "crowding-out hypothesis" (Lane, 2000), which states that because people have limited amount of time and energy, an overly high emphasis on external attributes and qualities that characterizes materialist beliefs/values would lead people to neglect or even sacrifice attention paid to areas fundamental to healthy functioning and development. As such, the problem may be that an overly high emphasis on materialistic pursuits leaves people no room to pursue activities and relationships that are good for healthy functioning and development. Materialist beliefs/values' relations with psychosocial maladjustment are, from this perspective, ultimately attributable to materialists' relations with the material world (i.e., materialistic pursuits crowding out more important concerns).

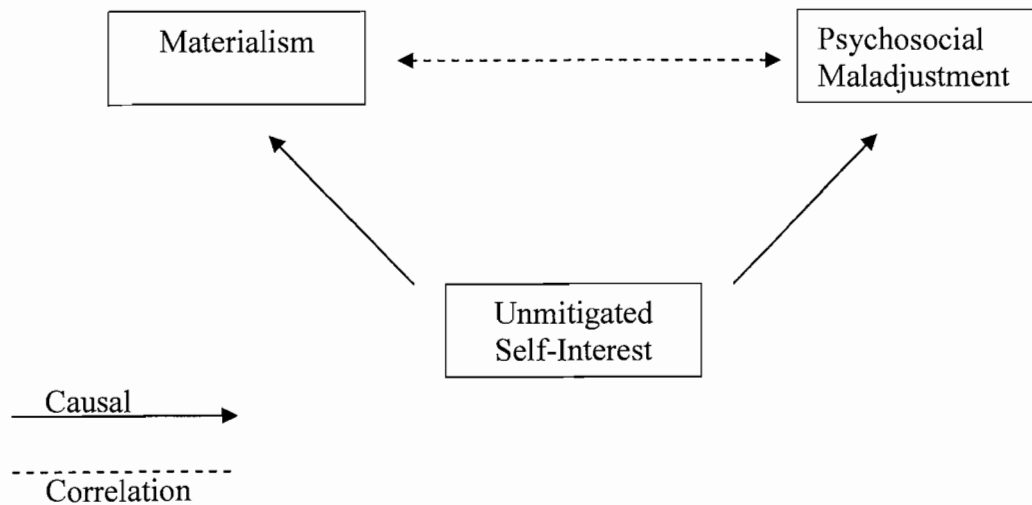
Kasser's (2002) theory has made a significant contribution in the field, increasing researchers' understanding of materialist beliefs/values' relation with psychosocial maladjustment. Nonetheless, more empirical work is needed before the theory can be considered well-supported. In particular, supportive findings are all cross-sectional in nature, and hence do not exclude the possibilities that (a) the relations between materialist beliefs/values and psychosocial maladjustment are accounted for or contributed to by a third variable that is related to both materialist beliefs/values and well-being problems, or that (b) psychosocial maladjustment leads to materialist beliefs/values.

### *The Hidden-Hand Hypothesis*

Besides crowding-out, there is another plausible hypothesis: What accounts for materialist beliefs/values' seeming relations with psychosocial maladjustment might not be materialist beliefs/values per se, but a third variable in which both materialist

beliefs/values and psychosocial maladjustment are rooted. This third variable is an *extensively* self-serving belief-orientation to life that concerns only an individual's immediate interest and benefits, which could be labeled as Unmitigated Self-Interest (discussed later).

Along this line of thought, Lane (2000) proposed a *hidden hand hypothesis* (for a graphic presentation, see Figure 3), suggesting that the detrimental effect of materialist



*Figure 3*

The Hidden-Hand Hypothesis: Unmitigated Self-Interest as Accounting for the Seeming Correlation between Materialist Beliefs/Values and Psychosocial Maladjustment

beliefs/values may be accounted for by the elevation of *instrumentalism*, which may push individuals to *contaminate* their interpersonal relationships by what he described as a market mentality. A market mentality involves emphasis on rational calculation to maximize self-interest. It sanctions a self-serving orientation (as explained later. It is what holds together the norms and practices in market settings; however, Lane argued that a market mentality would become harmful to the well-being of the self and others if it *generalized* into domains of interpersonal relationships outside of market settings.

Lane (2000) suggested that “consumption is self-serving, narcissistic, and egoistic, and of no visible public benefit” (p.180). He described four ways in which contemporary interpersonal relationships may be encroached by a market mentality in everyday relationships outside a market setting. First, a market mentality may erode trust among people. Second, a market mentality may encourage an instrumental mindset and a tendency to treat other people as objects or commodities and means to be used for one’s own ends. Third, a market mentality may lead people to evaluate others only based on extrinsic features such as money. Fourth, a market mentality may encourage people to generalize an exchange theory in which everything is for sale, including people, interpersonal relationships, and other social values.

Based on a hidden hand hypothesis, what is identified as detrimental to self and others is not a market mentality per se, but a pervasively self-serving belief orientation that applies the principles and procedures used by a market mentality to interpersonal relationships in other social domains. As noted by Lane (2000), whether the encroachment of interpersonal relationships by the pervasiveness of a market mentality is

accounted for by the thriving of market values and practices is still empirically unclear.<sup>3</sup> A *hidden hand argument* would be that it is an *extensively self-serving, narcissistic, and egoistic* belief-orientation that leads people to subject their interpersonal relations to a market mentality and ultimately leads to detrimental outcomes on well-being. As such, the seeming correlation between materialist values and psychosocial maladjustment may be accounted for by a third variable. Based on Lane's argument, this third variable is an *extensively* self-serving belief-orientation that subjects social relationships to a market mentality.

Indeed, Kasser, Cohn, Kanner, and Ryan's (2007) recent analysis on the psychological costs of American Corporate Capitalism (ACC) also indicated that materialist beliefs and values (e.g., an excessive emphasis on financial success) become problematic when connected with an obsession with competition, self-interest, and ceaseless consumption, without caring for reserving resources for billions of other people and organisms who also reside in the environment. Kasser and colleagues' (Kasser et al., 2007) thesis suggested that the mentality fostered under an ACC system is individualistic and selfish in nature. Under the influence of values and ideologies sanctioning the maximization of individualistic self-interest, people are encouraged to be greedy and competitive. People are encouraged to drop their concerns for the welfare of their community and a larger world, and to handle their interpersonal relations as if they involved commodities. As such, it is not surprising that under the ACC system, social values that contribute to caring for a broader community and to a sense of intimacy among individuals are found to be compromised (Kasser et al., 2007). After all,

individuals who gain the most profits are a very few who sit high atop the pyramid of the ACC system (as evidenced by the disproportionately high annual income of a CEO, compared to an hourly worker; in the U.S. the former on average earns income that is 185 times higher than the latter; Mischel, Bernstein, & Allegretto, 2005). A reinterpretation of the framework of Kasser and colleagues (2007), then, is that by utilizing materialistic goals (i.e., financial success) as incentives, ACC operates with a hidden hand pushing people into a self-serving belief-orientation, thereby maximizing the benefits of a few at the cost of the well-being of the majority and the larger world.

*Marketplaces as Characterized by a Distinct Form  
of Social Relationships*

The *hidden hand hypothesis* is based on the notion that relationships formed in market settings represent a distinct social domain that should be essentially differentiated from other forms of social relationships. Fiske (1992) proposed Market Pricing (MP) as one discrete relational structure which people use to organize their social lives.

According to Fiske (1992), a MP structure entails a single metric of price or utility, which could be used to calculate and compare the values of all the objects, acts, and entities that one gives and receives in an exchanging world. According to Fiske (1992), such a price or utility metric in a MP framework provides individuals with an *optimum medium* to evaluate *efficiency and efficacy*, or in other words, whether the personal benefit-cost ratio is maximized. As such, individuals with high achievement motivations (i.e., an orientation to maximize what one can obtain out of challenging opportunities; defined in Fiske, 1992) tend to endorse a MP perspective. An implication

is that market settings represent a form of social relationship *within which* individuals' pursuits of self-interest are sanctioned, and most of the time assumed (Fiske, 1992).

Indeed, the capacity for a self-serving orientation in relationships characterized in *marketplaces*<sup>4</sup> has been noted by many. Adam Smith (1776) famously pointed out that "it is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest (p. 26-27)." Merchants, in this statement, are conceptualized as entering a trading relationship in a market setting with a main goal of maximizing profits, striving to lower the cost of production and sell products with the highest price possible. According to Adam Smith, if merchants produce goods with good quality at decent prices, it is not because of their consideration for consumers' welfare or benefits, but because of the knowledge that goods with bad quality or high prices would make no profits.

Consumers, on the other hand, are often portrayed by scholars in psychology as entering a relationship in a marketplace striving to get their self-interest fulfilled too. According to Barta and Ahtola (1990), for example, motivations underpinning consumer behaviors in a market setting can be summarized into *two* dimensions: *Utilitarian* and *hedonic*. In other words, when purchasing objects, a consumer is concerned with how beneficial or useful (i.e., utilitarian), as well as how affectively gratifying the object is to the self (i.e., hedonic; see also Voss, Sprangenberg, & Grohmann, 2003). In a parallel argument, Barbin, Darden, and Griffin (1994) suggested that consumers evaluate a shopping experience based on the utilitarian value and the hedonic value produced by the consumption. The utilitarian aspects of shopping involve a rational evaluation of whether



one is able to accomplish an intended goal through consumption; the hedonic aspects involve the immediate sensory pleasure obtained from the consumption, be it “increased arousal, heightened involvement, perceived freedom, fantasy fulfillment, and escapism (p. 646),” or simply urge fulfillment. Note that both aspects (i.e., utilitarian and hedonic) mainly focus on *rewards* one can obtain from an object or a consumption experience; often, the benefits, welfare, or even the perspectives (e.g., thoughts and feelings) of the other person(s) with whom one is in a trading relationship (i.e., the merchant) are not in one’s concern.

#### *Boundaries between Markets and Other Social Relationships*

Despite the significance of MP as a social domain, there are social motivations that have been proposed to be more important than profit motives. Besides MP, Fiske (1992) proposed Communal Sharing (CS) as another relational structure significant in human sociality. In CS, individuals treat other people within the same community as equivalent to and undifferentiated from the self, and are likely to be altruistic and kind to others in the same community. According to Fiske, even though MP and CS are both relational domains significant and essential in the functioning of human society, each is governed by different principles and features different norms and motives.

Extending Fiske’s (1992) work, Fiske and Tetlock (1997) suggested that principles and procedures that govern and maintain the functioning of MP should remain *within* the MP domain, but once applied (transgressing the MP domain) to relationships in CS, these principles and procedures may jeopardize interpersonal relationships. Those authors suggested that certain forms of CS social relationships and their underlying

moral-political values are ingrained with people's self-image and social identities as moral beings. It is therefore taboo to treat these relationships and their underlying moral-political values as something *fungible* (i.e., *taboo trade-offs*), which would be otherwise normative in a MP domain. In other words, people tend to find it morally offensive if someone subjects a CS social relationship to a market mentality, as it is intuitively considered as a violation of the integrity, or even sanctity, of social norms.

Indeed, theoretical and empirical work of Tetlock and colleagues (Tetlock, Kristel, Elson, Green & Lerner, 2000) indicated that *taboo trade-offs* tend to trigger negative outcomes cognitively and emotionally. For example, after observing a scenario of a taboo trade-off, people were more likely to make harsh trait attributions to, and be emotionally outraged (i.e., angry, contemptuous, and disgusted) in reaction to the norm-violator (McGraw & Tetlock, 2005; Tetlock et al., 2000). An implication here is resonant to Lane's (2000) *hidden hand argument* that a market mentality, although useful in a MP domain, is interpersonally detrimental if applied to spheres of social relationships that are outside the MP domain.

Intriguingly, researchers (Fiske, 2002; McGraw & Tetlock, 2005; Tetlock, 2003; Tetlock & McGraw, 2005) have pointed out the *ambiguity* of the boundaries between a MP domain and non-MP domains. As such, *tactical flexibility* exists in conceptualization of when and whether the practicing of a market mentality is framed as a violation of social norms (McGraw & Tetlock, 2005), *which may ultimately impose cost on one's interpersonal relationships and other people's welfare*. In many cases, what may intuitively seem to be falling in a CS domain by most people in a specific occasion at a

specific time could be *rhetorically reframed* as something in the MP domain from another perspective. As pointed out by McGraw and Tetlock (2005), in responding to an act that encroaches on social relationships because it includes MP practices, people sometimes are willing to embrace the encroachment, either by actively reframing the act as morally legitimate<sup>5</sup>, or by passively being ready to accept the rhetoric reframing and to tolerate the encroachment, *if it is in their interests to do so*. This raises the question of what may account for a tendency to loosen the boundaries between MP and CS domains, and to subject an otherwise CS social relationship to a market mentality, even at the expense of one's interpersonal well-being (relationships) or welfare of other people (Johar, 2005; Kahn, 2005). One hypothesis would be that Machiavellians or people with high achievement motivations, who are likely to prioritize opportunities that maximize self-interest even at the expense of morality (Christie & Geis, 1970), would be more ready to neutralize or even embellish an otherwise taboo trade-off, if their rational self-interest is involved (Tetlock & McGraw, 2005). Although it remains to be empirically tested, this hypothesis seems to be consistent with Lane's *hidden hand argument*, which suggests that it is an *extensively self-serving orientation* encroaching on moral boundaries that ultimately leads to outcomes that harm the self and others.

#### *A "Hidden-Hand Hypothesis"*

Based on the perspectives described above, what may account for the relations between materialist values and psychosocial maladjustment may not be materialism per se, but instead the force of a hidden hand: An extensively self-serving, egoistic belief-

orientation that forgoes moral boundaries in interrelations with others in one's pursuit of the accumulation of individual wealth and material goods.

Indeed, research has indicated a relation between materialist values and poor social well-being. For example, materialist values were found by Kasser (2005) to be associated with a lower level of generosity, and were found by others (Sheldon & Kasser, 1995; McHoskey, 1999) to be related to engagement in fewer pro-social activities. Further, Sheldon and Kasser (1995) demonstrated that the degree to which financial success is rated as an important goal was associated with lower empathy, while McHoskey (1999) found that the aspiration level for financial success was positively correlated with Machiavellian tendencies. McCullough and colleagues (McCullough, Emmons, & Tsang, 2002; also see Polak & McCullough, 2006) showed that materialism was related to a lower level of gratitude. Other studies (Sheldon & McGregor, 2000; Sheldon, Sheldon, & Osbaldiston, 2000) suggested that people who have taken on materialistic values tend to be more competitive than cooperative, and less willing to share. Note that these studies were all correlational. Thus, it is empirically unclear whether the correlation between materialism and poor relationships is accounted for by the relations between the two, or a third variable. A hidden hand hypothesis would argue that an extensive self-serving, egoistic belief-orientation may function as a third variable accounting for the seeming relations between the two. In other words, individuals who hold an extensively self-serving, egoistic belief-orientation tend to be high on materialist values, as the latter provides an optimum medium to maximize self-interest, although this ultimately leads to a detrimental effect on social well-being.

Further, as discussed earlier, Saucier (2000) found that materialist beliefs/values represent one aspect of Unmitigated Self-Interest, which represents an orientation to what is beneficial to the self without regard for the welfare of other people and the environment. Saucier's (2000) study not only provided empirical evidence demonstrating materialist beliefs/values' association with a self-serving orientation, but also suggested that what underlies materialist values may be a broader attitudinal construct that represent a selfish, egoistic worldview and value system. Based on the theories of Lane (2000), these findings proposing the relation between materialist beliefs/values and a selfish, egoistic belief-orientation may indicate that psychosocial maladjustment is due not to materialist values, but rather to the hidden hand of a broader belief-orientation.

If an extensively self-serving, egoistic attitudinal orientation serves as a candidate source that at least partly accounts for the relation between materialist beliefs/values and psychosocial maladjustment, then the multifaceted nature of Unmitigated Self-Interest (as described on page 10) raises an empirical question: Which facet(s) of such a self-serving orientation are likely to account for materialist values' relations with psychosocial maladjustment? In other words, which domain(s) of the Unmitigated Self-Interest dimension are more likely to function as the source of materialism's harmfulness? Is it a tendency to negate morality, a tendency to place relatively high emphasis on external attributes and objects that are perceivable by the senses, a tendency to manipulate and exploit, a tendency to detest sharing, or a tendency toward in-group favoritism?

## Notes

- <sup>1</sup> Possessiveness involves an excessive tendency to guard one's possessions. Nongenerosity involves a tendency of not wanting to share. Envy involves a tendency to be envious of what other people have.
- <sup>2</sup> Another definition of materialism as a cognitive construct is provided by Inglehart (1990), who defined a high level of materialism as heavy emphasis on fulfilling needs for material comfort and physical safety over other needs, such as self-expression, belonging, aesthetic satisfaction, and quality of life. However, instead of treating materialism as a person's cognitive beliefs about what he/she want as an individual, Inglehart treated materialism as a person's cognitive beliefs about what the society as a whole should be like. As such, Inglehart's materialism has been referred to as "sociopolitical materialism."
- <sup>3</sup> For example, as pointed out by Lane, a tendency to treat people as objects is not unique to markets but is also seen in other contemporary institutions such as bureaucracies.
- <sup>4</sup> Although the utility or price metric entailed in a marketplace makes it possible for blunt pursuits of self-interest to be sanctioned within the MP framework, it is important to point out that empirically it is unclear whether such a self-serving, individualistic orientation that focuses on the maximization of self-interest is invariably a quality of relationships formed in marketplaces, or whether it is simply one of the outcomes enabled by the utility and price metric adopted in MP (Fiske, 1992). Indeed, even though highly self-serving individuals require MP as an optimum medium to maximize self profit-cost ratio, not everyone enters a market setting with achievement motivations; some people may simply look for a fair exchange without considering exploitation and getting the best deal ever.
- <sup>5</sup> Tragic trade-offs or routine trade-offs.

## CHAPTER III

### STUDY 1: EXAMINING THE RELATIVE CONTRIBUTIONS OF FACETS OF MATERIALISM AND UNMITIGATED SELF-INTEREST TO ASPECTS OF PSYCHOSOCIAL MALADJUSTMENT

The primary purpose of Study 1 was to explore whether the different facets of materialism described in Chapter II demonstrated distinct patterns of correlation with aspects of psychosocial maladjustment, so to determine whether statistically it would be useful to treat each individual facet as a separate construct. I first explored whether materialism on different broad levels (Behavioral, Values, and Philosophical) were each associated with different aspects of psychosocial maladjustment, and if so, which aspects of psychosocial maladjustment were more likely to be associated with Materialism on the Behavioral Level, Values Level and Philosophical Level, respectively. Next, I explored whether different facets of materialism were each associated with different aspects of psychosocial maladjustment, and if so, which aspects of psychosocial maladjustment were likely to be associated with Possession-Guarding, Buying, Hoarding, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness, and Philosophical Materialism, respectively.

In the second part of Study 1, I further examined the role Unmitigated Self-Interest, a worldview construct broader than materialism, plays in the relations between facets of materialism and psychosocial maladjustment. Specifically, I examined whether

the relations between materialism and aspects of psychosocial maladjustment were directly accounted for by facets of materialism alone, or by Unmitigated Self-Interest, or by both. Furthermore, if the relations were accounted for by materialism, I examined which facets of materialism were likely to account for the relations.

## Study 1: Method

### *Participants*

Participants of Study 1 were 839 undergraduate students from the Department of Psychology at the University of Oregon (female = 529), with an average age of 19.78 years. The measures of materialism, Unmitigated Self-Interest (USI), Internalizing and Externalizing Problem Tendency indicators were completed by these 839 participants. A measure of Subjective Well-Being was completed by 435 participants. Measures of Social Well-Being, Social Satisfaction, and Perceived Social Support were completed by 360 participants. Participants received participation credit toward their undergraduate psychology courses.

### *Materials*

Materials in Study 1 included multiple self-report surveys, all of which involve items rated on a 1 to 5 scale, with 1 representing a response that indicated that a given statement provided a very inaccurate description of oneself, and 5 representing a response that indicated that a given statement provided a very accurate description of oneself:

*Materialism measures* includes seven subscales, which were: (1) Buying, (2) Possession Guarding, (3) Hoarding, (4) Valuing Money and Status, (5) Valuing



Attractiveness and Sexiness, (6) Believing Owning Things Makes for Happiness, and (7) Philosophical Materialism. The first three subscales involve materialism on the behavioral level. The second three subscales involve materialism on the values level. The last scale involves materialism on a philosophical level. These seven were developed by Saucier using items from several scales (Belk, 1984; Richins & Dawson, 1992; Saucier, 2004; Goldberg et al., 2006) and were reported by Saucier in an unpublished study as having good reliability.

“Possession Guarding” involved six items from the “preservation” subscale in a revised version of Belk’s Materialism Scale (Belk, 1984, 1985; Ger & Belk, 1998), and Richins and Dawson’s (1992) Materialism Value Scale (MVS), which refers to a person’s tendency toward overly guarding his or her possessions. This subscale included items such as “I get very upset if something is stolen from me, even if it has little monetary value” and “I am less likely than most people to lock things up” (reverse scored).

“Hoarding” involved four items from the “possessiveness” subscale in Belk’s Materialism Scale (Belk, 1984, 1985), Richins and Dawson’s (1992) Materialism Value Scale (MVS), and the International Personality Item Pool (Goldberg et al., 2006), which refers to a person’s tendency toward hoarding his or her possessions. This subscale included items such as “I try to keep my life simple, with very few possessions” (reverse scored), and “I tend to hang onto things that I should probably throw out.”

“Buying” refers to a person’s tendency toward compulsive buying, and involved four items from Richins and Dawson’s (1992) Materialism Value Scale (MVS). Items included “I enjoy spending money on things that aren’t practical,” “Buying things gives me

a lot of pleasure”, and “I usually buy only the things I need” (reverse scored).

“Valuing Money and Status” involved seven items from Richins and Dawson’s (1992) Materialism Value Scale (MVS) and the International Personality Item Pool (Goldberg et al., 2006). This subscale included items such as “I would like to be a socially powerful person,” “I am motivated strongly to do some things by the good prospect of obtaining money,” and “I don’t place much emphasis on the amount of material objects people own as a sign of success” (reverse scored).

“Valuing Attractiveness and Sexiness” included four items from the International Personality Item Pool (Goldberg et al., 2006). This subscale included items such as “I find my attention easily strays from work in the presence of an attractive stranger” and “I try to meet people I find attractive.”

“Believing Owning Things Makes for Happiness” included four items from Richins and Dawson’s (1992) Materialism Value Scale (MVS). This subscale included items such as “I feel that my life would be better if I owned certain things I don’t have” and “I know that I wouldn’t be any happier if I owned nicer things” (reverse scored).

“Philosophical Materialism” was represented by the four-item Physicalism scale developed by Saucier (2004). Items are: “Not everything can be explained in terms of matter, physical events, and science,” “Physical laws cannot explain some mental phenomena” (both reversed scored), “All phenomena can be explained in terms of natural causes and laws, without attributing moral, spiritual, or supernatural significance to them,” and “Everything- including thought, feeling, mind, and will- can be explained in terms of matter and physical phenomena.”

In addition to these seven subscales of materialism, Possession-Guarding, Hoarding, and Buying were aggregated to form a composite score for Materialism on the Behavioral Level. Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness were aggregated to form a composite score for Materialism on the Value Level.

*Unmitigated self-interest measure.* Unmitigated Self-Interest (USI) was measured by an 8-item scale developed by Saucier (2008). The original measure involves items from four facets of Unmitigated Self-Interest: Materialist Values (2 items), Egoism (2 items), Ethnocentrism (2 items), and Hedonism (2 items). Besides a USI score that was computed based on the 8 items, another USI score was computed based on six items that did not include the two items on Materialist Values. The latter was used to examine the unique contributions of USI independent from materialism on psychosocial maladjustment. Example items from the USI are “I believe in the superiority of my own ethnic group,” “The self is the only reality,” and “People ought to be motivated by something beyond their own self-interest” (reverse scored).

#### *Psychosocial Maladjustment Indicators*

*Internalizing problem tendencies.* *Emotional Instability* was measured by ten items developed by Saucier. This scale included items from the International Personality Item Pool (Goldberg et al., 2006), such as “I hold a grudge,” “I suspect hidden motives in others,” and “I rarely get irritated” (reverse scored). *Internalizing Negative Emotionality* was measured by five items developed by Saucier. This scale included items from the International Personality Item Pool (Goldberg et al., 2006), such as “I am afraid of many

things,” “I look at the bright side of life (reverse scored). *Negative emotionality* was measured by ten items developed by Saucier. This scale included items from the International Personality Item Pool (Goldberg et al, 2006), such as “I have frequent mood swings,” “I get stressed easily,” and “I seldom feel blue” (reverse scored).

*Externalizing problem tendencies* were measured by two psychopathy scales. The first psychopathy scale was a 5-item scale that was an abbreviation by Saucier of the Primary Psychopathy Scale originally developed by Levenson, Kiehl, and Fitzpatrick (1995). The Primary Psychopathy Scale was designed to measure “a selfish, uncaring, and manipulative posture” (Levenson et al., p.152). Examples of items on the abbreviated scale are “I would be upset if my success came at someone else’s expense” and “I make a point of trying not to hurt others in pursuit of my goals” (reverse scored).

The Psychopathy Scale by Williams, Paulhus, and Hare (2007) was also included in this study. This scale is comprised of four subscales. *Interpersonal Manipulation* has five items and was designed to assess “characteristics such as pathological lying, conning, and manipulating” (Williams et al., 2007, p. 209). Examples of items are “I find it easy to manipulate people,” and “Conning people gives me the ‘shakes’ (reverse scored). *Criminal Tendencies* has five items. Examples of items are “I have stolen a motor vehicle,” and “I’ve been involved in delinquent gang activity.” *Erratic Lifestyle* has five items and was designed to measure “undependability, recklessness, and impulsivity” (Williams et al., p. 209). Examples of items are “Rules are made to be broken,” and “I have broken an appointment when something better came along.” *Callous Affect* has 5 items and was designed to assess “low empathy and a general lack of

concern for other people” (Williams et al., p. 209). Examples of items are “I am often rude to other people” and “Not hurting others’ feelings is important to me” (reverse scored).

*Social/subjective well-being indicators.* *Subjective Well-Being* was measured by the Satisfaction with Life Scale developed by Pavot and Diener (1993). Examples of items are “In most ways my life is close to my ideal” and “If I could live my life over, I would change almost nothing.”

*Social well-being* was measured by a scale developed by Keyes (1998) that includes fifteen items. Example items are “My community is a source of comfort,” “The world is becoming a better place for everyone,” and “I cannot make sense of what’s going on in the world” (reverse scored). Other Social Well-Being indicators used in Study 1 included *Satisfaction with Social Network Scale* (Stokes, 1983) and *Perceived Social Support* (Zimet et al., 1988). *Satisfaction with Social Network Scale* includes eight items assessing individuals’ satisfaction for their social networks (defined in Social Network List) and their networks of friends (people in their social networks who were not their relatives) based on the same four dimensions: (a) General level of satisfaction with the network, (b) amount of changes desired to see in the network, (c) satisfaction with assistance in daily activities from the network, and (d) satisfaction with the emotional support received from the network. *Perceived Social Support* (Zimet et al., 1988) includes twelve items assessing individuals’ perception of the social support that they receive from significant others, family, and friends. Examples of items are “There is a

special person who is around when I am in need,” “I get the emotional help and support I need from my family” and “I have friends with whom I can share my joys and sorrows.”

### Study 1: Data Analysis

#### *Facets of Materialism and Psychosocial Maladjustment*

The first part of Study 1 examined the relative contributions of different levels and different facets of materialism on aspects of psychosocial maladjustment while the shared variance was adjusted. Four sets of multiple regressions were performed on each dependent measure of psychosocial maladjustment, including three internalizing problem tendency indicators (i.e., Emotional Instability, Internalizing Negative Emotionality, and Negative Emotionality), five externalizing problem tendency indicators (i.e., Levenson’s Primary Psychopathy, Hare’s Interpersonal Manipulation, Hare’s Erratic Lifestyle, Hare’s Callous Affect, and Hare’s Criminal Tendency) and four social/subjective well-being indicators (i.e., Subjective Well-Being, Social Well-Being, Social Satisfaction, and Perceived Social Support).

I first explored whether different broad levels of materialism (Behavioral, Values, and Philosophical) were each associated with different aspects of psychosocial maladjustment, and if so which aspects of psychosocial maladjustment were more likely to be associated with Materialism on the Behavioral Level, Values Level and Philosophical Level, respectively. As such, in the first set of regressions, I examined the relative contributions of the three broad levels of materialism (i.e., Behavioral, Values level, and Philosophical) on aspects of psychosocial maladjustment.

Materialism on the Behavioral Level involves multiple facets (i.e., Possession-Guarding, Hoarding, and Buying; Figure 1, p. 10). In the second set of regressions, I examined the relative contributions of Possession-Guarding, Hoarding, and Buying to the prediction of aspects of psychosocial maladjustment. Specifically, I was interested in whether Possession Guarding, Hoarding, and Buying showed differing patterns of correlations with aspects of psychosocial maladjustment, to determine whether statistically it would be useful to aggregate Possession Guarding, Hoarding, and Buying into one general measure of Materialism on the Behavioral Level, or to treat each as a separate construct.

Materialism on the Values Level also involves multiple facets (i.e., Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness, Figure 1, p. 10). In the third set of regressions, I examined the relative contributions of Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness to the prediction of aspects of psychosocial maladjustment. Specifically, I was interested in whether Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness showed differing patterns of correlation with aspects of psychosocial maladjustment, to determine whether statistically it is useful to aggregate Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness into a general measure of Materialism on the Values Level, or to treat them as separate constructs.

As will be described in the next section, results from the second and third sets of regressions indicated that statistically it may be useful to treat Possession Guarding, Hoarding, Buying, Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness, and Philosophical Materialism as seven separate constructs. As such, a fourth set of regressions was performed in which the relative contribution of each of the seven facets of materialism to aspects of psychosocial maladjustment was examined.

*Materialism, Unmitigated Self-Interest, and  
Psychosocial Maladjustment*

The second part of Study 1 examined whether materialism's relation with psychosocial maladjustment is accounted for by materialism alone, or Unmitigated Self-Interest (a construct broader than materialism), or both. A simple regression was first performed to examine the unique relation between each facet of materialism and Unmitigated Self-Interest. Next, the unique contributions of Unmitigated Self-Interest and materialism on outcome variables were examined. Hierarchical multiple regressions were conducted on internalizing problem tendency indicators (i.e., Emotional Instability, Internalizing Negative Emotionality, and Negative Emotionality), externalizing problem tendency indicators (i.e., Levenson's Primary Psychopathy, Hare's Interpersonal Manipulation, Hare's Erratic Lifestyle, Hare's Callous Affect, and Hare's Criminal Tendencies), and social/subjective well-being indicators (i.e., Subjective Well-being, Social Well-being, Social Satisfaction, and Perceived Social Support).



In the first set of regressions, the seven facets of materialism were entered on the first step, followed by the addition of Unmitigated Self-Interest (the 6-item measure that excluded Materialist Values) on the second step. I examined whether Unmitigated Self-Interest made a unique contribution to the prediction of aspects of psychosocial maladjustment, independent from facets of materialism. For indicators that were significantly predicted by the addition of USI when the seven facets of materialism were controlled for, a second set of regressions were performed. In the second set of regressions, the order of entry was reversed: USI was entered on the first step, followed by the addition of the seven facets of materialism. I examined whether facets of materialism had unique contributions to the prediction of aspects of psychosocial maladjustment independent from USI.

## Study 1: Results

### *Reliability*

Coefficient alpha was calculated separately for each subscale of materialism. Possession Guarding produced an alpha coefficient of .61. Hoarding produced an alpha coefficient of .63. Buying produced an alpha coefficient of .71. Believing Owning Things Makes for Happiness produced an alpha coefficient of .67. Valuing Money and Status produced an alpha coefficient of .78. Valuing Attractiveness and Sexiness produced an alpha coefficient of .69. Philosophical materialism produced an alpha coefficient of .81. A 6-item Unmitigated Self-Interest scale (excluding Materialist Values) produced an alpha coefficient of .56.

Among internalizing problem tendency indicators, Emotional Instability produced an alpha coefficient of .83. Internalizing Negative Emotionality produced an alpha coefficient of .61. Internalizing Negative Emotionality produced an alpha coefficient of .72. The abbreviated Levenson's Primary Psychopathy produced an alpha coefficient of .66. Hare's Interpersonal Manipulation produced an alpha coefficient of .62. Hare's Callous Affect produced an alpha coefficient of .74. Hare's Erratic Lifestyle produced an alpha coefficient of .63. Hare's Criminal Tendency produced an alpha coefficient of .68.

As for social/subjective well-being indicators: Subjective Well-Being produced an alpha coefficient of .81. Social Well-Being produced an alpha coefficient of .73. Social Satisfaction produced an alpha coefficient of .90. Perceived Social Support produced an alpha coefficient of .91.

The sample size was 839 for all materialism subscales and internalizing problem tendency indicators, 435 for Subjective Well-Being, and 360 for Social Well-Being, Social Satisfaction, and Perceived Social Support.

#### *Threshold for Statistical Significance*

Because many outcome variables were included in these analyses, increasing the risk of Type I error, a relatively stringent threshold for statistical significance was used ( $p < .001$ ). Except as noted, all beta weights described as significant satisfy this stringent criterion. However, tables provide information on which coefficients were significantly at less stringent levels ( $p < .05$ ,  $p < .01$ ).

*Preliminary Analyses*

Tables 1 and 2 present Pearson correlations among three broad levels of materialism and Pearson correlations among seven aspects of materialism, respectively. Table 3 presents Pearson correlations between three broad levels of materialism and each outcome variables. Table 4 presents Pearson correlations between each predictor variable (i.e., the seven facets of materialism and the two USI scores) and each outcome variable.

Table 1  
*Study 1: Intercorrelations among Three Broad Levels  
of Materialism and USI Measures*

Level	1	2	3	4	5
1. MB	-	-	-	-	
2. MV	.47***	-	-	-	
3. MP	.01	.15***	-	-	
4. USI	.17***	.35***	.31***	-	
5. USI MX	.12***	.28***	.30***	.95***	-

*Notes.* Results were based on the student sample of the Psychology Department in University of Oregon (N = 839). \*\*\*  $p < .001$ . MB = Materialism-Behavioral Level, MV = Materialism-Values Level, MP = Materialism-Philosophical Level, USI = Unmitigated Self-Interest (8-item), USI MX = Unmitigated Self-Interest Excluding Materialism (6-item).

Table 2

*Study 1: Intercorrelations among Aspects of  
Materialism and USI Measures*

	1	2	3	4	5	6	7	8
1. Possession Guarding	-	-	-	-	-	-	-	-
2. Hoarding	.39***	-	-	-	-	-	-	-
3. Buying	.28***	.37***	-	-	-	-	-	-
4. Believing Owning Things as Happiness	.31***	.20***	.47***	-	-	-	-	-
5. Valuing Money & Status	.34***	.22***	.58***	.55***	-	-	-	-
6. Valuing Attractiveness & Sexiness	.04	.05	.18***	.18***	.29***	-	-	-
7. Philosophical Materialism	.03	-.04	.03	.11**	.15***	.10**	-	-
8. USI	.15***	.04	.19***	.29***	.37***	.13***	.13***	-
9. USI MX	.13***	.03	.13***	.22***	.28***	.13***	.30***	.95***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 839$ ). USI = Unmitigated Self-Interest, USI MX = Unmitigated Self-Interest Materialist Values Excluded. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 3

*Study 1: Correlations between Aggregated Indicators of Three Broad Levels of Materialism and Three Categories of Psychosocial Maladjustment*

	N	Materialism Level		
		Behav.	Values	Philo.
<i>Internalizing Problem Tendencies</i>				
Emotional Instability	839	.42***	.21***	.03
Internalizing Negative Emotionality	839	.33***	.18***	.05
Negative Emotionality	839	.35***	.26***	.10**
<i>Externalizing Problem Tendencies</i>				
Levenson's Primary Psychopathy	839	.09**	.38***	.28***
Hare's Psychopathy, IM	839	.10**	.37***	.23***
Hare's Psychopathy, EL	839	.17***	.40***	.08**
Hare's Psychopathy, CA	839	.04	.30***	.29***
Hare's Psychopathy, CT	839	-.04	.17***	.11***
<i>Well-Being Indicators</i>				
Subjective Well-Being	435	-.15**	-.28***	-.09
Social Well-being	360	-.12	-.16**	-.11*
Social Satisfaction	360	-.04	-.22***	-.21***
Perceived Social Support	360	.06	-.11*	-.26***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon. IM = Interpersonal Manipulation, EL = Erratic Lifestyle, CA = Callous Affect, CT = Criminal Tendencies.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 4

*Study 1: Correlations between Facets of Materialism and Aspects of Psychosocial Maladjustment*

	<i>N</i>	Poss. Guarding	Hoard.	Buying	Believing Owning Things Makes for Happiness	Valuing Money & Status	Valuing Attra. & Sexiness	Philo. Materi.	USI	USI MX
<i>Internalizing Problem Tendencies</i>										
Emotional Instability	839	.34***	.32***	.30***	.31***	.16***	.02	.03	.03	.02
Internalizing Negative Emotionality	839	.25***	.24***	.26***	.24***	.17***	.00	.05	.12***	.10**
Negative Emotionality	839	.29***	.25***	.25***	.34***	.19***	.06	.10**	.11***	.08*
<i>Externalizing Problem Tendencies</i>										
Levenson's Primary Psychopathy	839	.02	.00	.16***	.27***	.35***	.24***	.28***	.48***	.42***
Hare's Psychopathy, IM	839	-.01	.04	.17***	.25***	.28***	.30***	.23***	.28***	.24***
Hare's Psychopathy, EL	839	-.01	.13***	.23***	.21***	.28***	.39***	.08	.19***	.18***
Hare's Psychopathy, CA	839	-.03	-.04	.14***	.22***	.29***	.17***	.29***	.48***	.43***
Hare's Psychopathy, CT	839	-.12***	-.04	.04	.08*	.13***	.17***	.12***	.26***	.24***
<i>Well-Being Indicators</i>										
Subjective Well-Being	435	-.14**	-.07	-.13**	-.48***	-.12**	-.02	-.09	-.15***	-.12**
Social Well-being	360	-.14**	-.03	-.13**	-.30***	-.09	.01	-.11*	-.23***	-.26***
Social Satisfaction	360	-.10	.03	-.04	-.30***	-.19***	-.02	-.21***	-.20***	-.18***
Perceived Social Support	360	.01	.06	.05	-.22***	-.07	-.04	-.26***	-.23***	-.21***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon. IM = Interpersonal Manipulation, EL = Erratic Lifestyle, CA = Callous Affect, CT = Criminal Tendencies, USI = Unmitigated Self-Interest, USI MX = Unmitigated Self-Interest Materialist Values Excluded. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

*Regression Analyses on Facets of Materialism  
and Psychosocial Maladjustment*

In the first set of multiple regressions, Materialism on the Behavioral Level, Materialism on the Values Level, and Materialism on the Philosophical Level were designated as predictor variables. The column of broad-level Regressions in Table 5 represents the standardized regression coefficients between the three general measures of materialism on three levels (i.e., Behavioral, Values, and Philosophical) and aspects of psychosocial maladjustment when adjusting for the shared variance from the three levels. I will present results for materialism's relations with the three domains of psychosocial maladjustment (i.e., internalizing problem tendency indicators, externalizing problem tendency indicators, and social/well-being indicators) separately. In each domain, I will list psychosocial maladjustment indicators that were significantly predicted by each level of materialism, in order of the magnitude of their coefficient effect sizes.

Among internalizing problem tendency indicators, Materialism on the Behavioral Level positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .41$ ), Internalizing Negative Emotionality ( $\beta = .32$ ), and Negative Emotionality ( $\beta = .30$ ). However, Materialism on the Values Level and Materialism on the Philosophical Level did not predict any of the internalizing problem tendency indicators.

Among externalizing problem tendency indicators, Materialism on the Values level positively and significantly predicted all five indicators, including: Hare's Erratic

Table 5

*Study 1: Regression Analyses for Levels of Materialism and Aspects of Psychosocial Maladjustment*

	Broad-Level Regression			Behavioral-Level Regression			Values-Level Regression			
	<i>N</i>	Behavioral	Values	Philosophical	Poss. Guard.	Hoard.	Buying	Believing Owning Things Makes for Happiness	Valuing Money & Status	Valuing Attract. & Sexiness
<i>Internalizing Problem Tendencies</i>										
Emotional Instability	839	.41***	.02	.02	.22***	.17***	.18***	.32***	-.04	-.01
Internalizing Negative Emotionality	839	.32***	.02	.04	.15***	.13***	.17***	.20***	-.06	.08
Negative Emotionality	839	.30***	.11**	.08*	.21***	.11***	.16***	.33***	.00	.01
<i>Externalizing Problem Tendencies</i>										
Levenson's Primary Psychopathy	839	-.09*	.39***	.22***	-.02	-.06	.19***	.10**	.15***	.25***
Hare's psychopathy, IM	839	-.08	.38***	.18***	-.06	.00	.19***	.12**	.23***	.15***
Hare's psychopathy, EL	839	-.02*	.41***	.02	-.11**	.10*	.22***	.07	.34***	.14***
Hare's psychopathy, CA	839	-.11**	.32***	.24***	-.05	-.09*	.19***	.09*	.09**	.22***
Hare's psychopathy, CT	839	-.15***	.22***	.08*	-.14***	-.02	.09*	.01	.14***	.08*
<i>Well-Being Indicators</i>										
Subjective Well-Being	435	-.02	-.26***	-.06	-.11*	.01	-.10	-.59***	.03	.19**
Social Well-Being	360	-.05	-.12**	-.09	-.13*	.06	-.11*	-.36***	.05	.10
Social Satisfaction	360	.10	-.25***	-.18**	-.12*	.09	-.04	-.29***	.04	-.04
Perceived Social Support	360	.15**	-.16**	-.25***	-.03	.06	.04	-.27**	.06	.07

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon. IM= Interpersonal Manipulation, EL= Erratic Lifestyle, CA= Callous Affect, CT= Criminal Tendencies. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.



Lifestyle ( $\beta = .41$ ), Levenson's Primary Psychopathy ( $\beta = .39$ ), Hare's Interpersonal Manipulation ( $\beta = .38$ ), Hare's Callous Affect ( $\beta = .32$ ), and Hare's Criminal Tendency ( $\beta = .22$ ). Materialism on the Philosophical Level positively and significantly predicted three indicators, including: Hare's Callous Affect ( $\beta = .24$ ), Levenson's Primary Psychopathy ( $\beta = .22$ ) and Hare's Interpersonal Manipulation ( $\beta = .18$ ). Materialism on the Behavioral Level was not positively related to any of the externalizing problem tendencies. In the opposite direction, Materialism on the Behavioral Level negatively and significantly predicted Hare's Criminal Tendency ( $\beta = -.15$ ).

Among social/subjective well-being indicators, Materialism on the Values Level negatively and significantly predicted two indicators, including Subjective Well-Being ( $\beta = -.26$ ) and Social Satisfaction ( $\beta = -.25$ ). Materialism on the Philosophical Level negatively and significantly predicted Perceived Social Support ( $\beta = -.25$ ). Materialism on the Behavioral Level did not predict any of the social/subjective well-being indicators.

In the second set of multiple regressions, specific aspects of materialism on the Behavioral Level (i.e., Possession Guarding, Hoarding, and Buying) were designated as predictor variables. The column of Behavioral-Level Regressions in Table 5 represents the standardized regression coefficients between the three aspects of materialism on the Behavioral Level (i.e., Possession-Guarding, Hoarding, and Buying) and aspects of psychosocial maladjustment adjusting for the shared variance among these aspects. I will present results for facets of materialism on the behavioral level's relations with the three domains of psychosocial maladjustment (i.e., internalizing problem tendency indicators, externalizing problem tendency indicators, and social/well-being indicators) separately.

In each domain, I will list psychosocial maladjustment indicators that were significantly predicted by each facet of materialism, in order of the magnitude of their coefficient effect sizes.

Among internalizing problem tendency indicators, Possession-Guarding positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .22$ ), Negative Emotionality ( $\beta = .21$ ), and Internalizing Negative Emotionality ( $\beta = .15$ ); Hoarding positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .17$ ), Internalizing Negative Emotionality ( $\beta = .13$ ), and Negative Emotionality ( $\beta = .11$ ); Buying positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .18$ ), Internalizing Negative Emotionality ( $\beta = .17$ ), and Negative Emotionality ( $\beta = .16$ ).

Among the externalizing problem tendency indicators, Buying positively and significantly predicted four indicators, including: Hare's Erratic Lifestyle ( $\beta = .22$ ), Levenson's Primary Psychopathy ( $\beta = .19$ ), Hare's Interpersonal Manipulation ( $\beta = .19$ ), and Hare's Callous Affect ( $\beta = .19$ ). Neither Possession-Guarding nor Hoarding positively or significantly predicted any of the externalizing problem tendency indicators. In the opposite direction, Possession-Guarding negatively and significantly predicted Hare's Criminal Tendency ( $\beta = -.14$ ). Finally, neither Possession-Guarding, Hoarding, nor Buying predicted any of the social/subjective well-being indicators.

In the third set of regressions, the Values Level facets of materialism (i.e., Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Sex and Attractiveness) were designated as predictor variables. The column of Values

Level Regressions in Table 5 represents the standardized regression coefficients between the three facets of materialism on the Values Level and aspects of psychosocial maladjustment, adjusting for the shared variance among these aspects. I will present results for facets of materialism on the Values Level's relations with the three domains of psychosocial maladjustment (i.e., internalizing problem tendency indicators, externalizing problem tendency indicators, and social/well-being indicators separately. In each domain, I will list psychosocial maladjustment indicators that were significantly predicted by each facet of materialism, in order of the magnitude of their coefficient effect sizes.

Among internalizing problem tendency indicators, Believing Owning Things Makes for Happiness was positively and significantly correlated with all three indicators, including: Emotional Instability ( $\beta = .32$ ), Negative Emotionality ( $\beta = .33$ ), and Internalizing Negative Emotionality ( $\beta = .20$ ). However, neither Valuing Money and Status nor Valuing Attractiveness and Sexiness predicted any of the internalizing problem tendency indicators.

Among externalizing problem tendency indicators, Valuing Money and Status positively and significantly predicted four indicators, including: Hare's Erratic Lifestyle ( $\beta = .34$ ), Hare's Interpersonal Manipulation ( $\beta = .23$ ), Levenson's Primary Psychopathy ( $\beta = .15$ ), and Hare's Criminal Tendency ( $\beta = .14$ ); Valuing Sex and Attractiveness positively and significantly predicted four indicators, including Levenson's Primary Psychopathy ( $\beta = .25$ ), Callous Affect ( $\beta = .22$ ), Hare's Interpersonal Manipulation ( $\beta =$

.15) and Hare's Erratic Lifestyle ( $\beta = .14$ ). Believing Owning Things Makes for Happiness did not predict any of the externalizing problem tendency indicators.

Among social/subjective well-being indicators, Believing Owning Things Makes for Happiness negatively and significantly predicted all four indicators, including: Subjective Well-Being ( $\beta = -.59$ ), Social Well-Being ( $\beta = -.36$ ), Social Satisfaction ( $\beta = -.29$ ), and Perceived Social Support ( $\beta = -.27$ ). However, neither Valuing Money and Status nor Valuing Sex and Attractiveness significantly predicted any of the social/subjective well-being indicators.

In the fourth set of regressions, all seven facets of materialism (i.e., Possession Guarding, Hoarding, Buying, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Sex and Attractiveness, and Philosophical Materialism) were designated as predictor variables. Table 6 presents the standardized regression coefficients between seven facets of materialism with aspects of psychosocial maladjustment adjusting for the shared variance among the seven aspects of materialism. I will present results for facets of materialism's relations with the three domains of psychosocial maladjustment (i.e., internalizing problem tendency indicators, externalizing problem tendency indicators, and social/well-being indicators separately). In each domain, I will list psychosocial maladjustment indicators that were significantly predicted by each facet of materialism, in order of the magnitude of their coefficient effect sizes.

Among internalizing problem tendency indicators, Possession-Guarding was positively and significantly correlated with all three indicators, including: Emotional

Table 6

*Study 1: Regression Analyses for Facets of Materialism and Aspects of Psychosocial Maladjustment*

	<i>N</i>	Poss. Guard.	Hoard	Buying	Believing Owning Things Makes for Happiness	Valuing Money & Status	Valuing Attract. & Sexiness	Philo. Materia.
<i>Internalizing Problem Tendencies</i>								
Emotional Instability	839	.21***	.17***	.18***	.22***	-.17***	-.03	.03
Internalizing Negative Emotionality	839	.13***	.13***	.15***	.14***	-.05	-.05	.04
Negative Emotionality	839	.17***	.12***	.09	.27***	-.10*	.00	.08*
<i>Externalizing Problem Tendencies</i>								
Levenson's Primary Psychopathy	839	-.11***	-.02	-.05	.13***	.29***	.13***	.22***
Hare's psychopathy, IM	839	-.13***	.03	-.01	.14***	.16***	.22***	.18***
Hare's psychopathy, EL	839	-.16***	.12**	.05	.07	.13***	.33***	.03
Hare's psychopathy, CA	839	-.14***	-.05	-.01	.11**	.24***	.07*	.23***
Hare's psychopathy, CT	839	-.18***	.00	-.03	.04	.13***	.12**	.09*
<i>Well-Being Indicators</i>								
Subjective Well-Being	435	-.03	-.01	.05	-.60***	.18**	.03	-.06
Social Well-Being	360	-.08	.05	-.05	-.34***	.14*	.05	-.09
Social Satisfaction	360	-.02	-.06	.15*	-.31***	-.10	.05	-.17**
Perceived Social Support	360	.05	.03	.17**	-.31***	.00	.08	-.24***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon. IM = Interpersonal Manipulation, EL = Erratic Lifestyle, CA = Callous Affect, CT = Criminal Tendencies. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Instability ( $\beta = .21$ ), Negative Emotionality ( $\beta = .17$ ), and Internalizing Negative Emotionality ( $\beta = .13$ ); Hoarding positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .17$ ), Internalizing Negative Emotionality ( $\beta = .13$ ), and Negative Emotionality ( $\beta = .12$ ); Buying positively and significantly predicted all three indicators, including: Emotional Instability ( $\beta = .18$ ) and Internalizing Negative Emotionality ( $\beta = .15$ ); Believing Owning Things Makes for Happiness positively and significantly predicted all three indicators, including: Negative Emotionality ( $\beta = .26$ ), Emotional Instability ( $\beta = .22$ ) and Internalizing Negative Emotionality ( $\beta = .14$ ). In the opposite direction, Valuing Money and Status negatively and significantly predicted Emotional Instability ( $\beta = -.17$ ).

Among externalizing problem tendency indicators, Valuing Money and Status positively and significantly predicted all five indicators, including: Levenson's Primary Psychopathy ( $\beta = .29$ ), Hare's Callous Affect ( $\beta = .24$ ), Hare's Interpersonal Manipulation ( $\beta = .16$ ), Hare's Erratic Lifestyle ( $\beta = .13$ ), and Criminal Tendency ( $\beta = .13$ ); Valuing Attractiveness and Sexiness positively and significantly predicted three indicators, including: Hare's Erratic Lifestyle ( $\beta = .33$ ), Hare's Interpersonal Manipulation ( $\beta = .22$ ), and Levenson's Primary Psychopathy ( $\beta = .13$ ); Philosophical Materialism positively and significantly predicted three indicators, including: Levenson's Primary Psychopathy ( $\beta = .22$ ), Hare's Interpersonal Manipulation ( $\beta = .18$ ), and Hare's Callous Affect ( $\beta = .23$ ); Believing Owning Things Makes for Happiness positively and significantly predicted two indicators, including: Hare's Interpersonal Manipulation ( $\beta = .14$ ) and Levenson's Primary Psychopathy ( $\beta = .13$ ). Neither Possession-Guarding,

Hoarding, nor Buying positively and significantly predicted any of the externalizing problem tendency indicators. In the opposite direction, Possession-Guarding negatively and significantly predicted five indicators, including: Hare's Criminal Tendency ( $\beta = -.18$ ), Hare's Erratic Lifestyle ( $\beta = -.16$ ), Hare's Callous Affect ( $\beta = -.14$ ), Hare's Interpersonal Manipulation ( $\beta = -.13$ ), and Levenson's Primary Psychopathy ( $\beta = -.11$ ).

In terms of social/subjective well-being indicators: Believing Owning Things Makes for Happiness Subjective positively and significantly predicted four indicators, including: Subjective Well-Being ( $\beta = -.60$ ), Social Well-Being ( $\beta = -.34$ ), Social Satisfaction ( $\beta = -.31$ ), and Perceived Social Support ( $\beta = -.31$ ). Philosophical Materialism positively and significantly predicted Perceived Social Support ( $\beta = -.24$ ).

*Regression Analyses on Facets of Materialism, USI and Outcome Variables Facets of Materialism and USI.*

The unique relation of each facet of materialism with Unmitigated Self-Interest was examined using regression analyses. In this regression, Possession Guarding, Hoarding, Buying, Believing Owning Things Makes for Happiness, Valuing Attractiveness and Sexiness, and Philosophical Materialism were designated as predictors, regressing against the 6-item USI score. As presented in Table 7, among the seven facets of materialism, only Philosophical Materialism ( $\beta = .26$ ) and Valuing Money and Status ( $\beta = .21$ ) were significantly correlated with USI.

Table 7  
*Study 1: Correlations between USI and each Facet of Materialism  
 when Variance from Other Facets were Adjusted for*

	Poss. Guarding	Hoard.	Buying	Believing Owning Things Makes for Happiness	Valuing Money & Status	Valuing Attract& Sexiness	Philo. Materi.
USI MX	.05	-.03	-.06	.09*	.21***	.04	.26***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 839$ ). \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

*Hierarchical Regressions: The Unique Contribution of Materialism  
 and USI on the Prediction of Outcome Variables*

*Internalizing problem tendency indicators.* As presented in Table 8, when entered into the equation on the first step, the seven facets of materialism taken together significantly accounted for variance in all the internalizing problem tendency indicators. The percentage of variance explained by the equation for each indicator was: Emotional Instability (adjusted R-square change = 22%), Negative Emotionality (adjusted R-square change = 18%), and Internalizing Negative Emotionality (adjusted R-square change = 13%) respectively. The 6-item USI measure was entered next. However, with the seven facets of materialism controlled for via entry as Block 1 in the regression, the addition of USI did not contribute unique variance to the prediction of any of the internalizing problem tendencies indicators.



Table 8

*Study 1: Hierarchical Multiple Regression Analyses Examining the Contribution of USI on Internalizing Problem Tendencies when Contributions from Facets of Materialism are Controlled for*

		Emotional Instability	Internalizing Negative Emotionality	Negative Emotionality
Block 1	<i>R square change</i>	.22	.13	.18
	<i>F change</i>	33.43***	17.25***	26.38***
<i>Standardized Regression Coefficients</i>				
	Possession Guarding	.21***	.13***	.17***
	Hoarding	.17***	.13***	.12***
	Buying	.18***	.15***	.09*
	Believing Owning Things Makes for Happiness	.22***	.14***	.27***
	Valuing Money and Status	-.17***	-.05	-.10*
	Valuing Attract. & Sexiness	-.03	-.05	.00
	Philosophical Materialism	.03	.04	.08*
Block 2	<i>R square change</i>	.00	.00	.00
	<i>F change</i>	2.29	1.71	.15
<i>Standardized Regression Coefficients</i>				
	Possession Guarding	.22***	.13***	.17***
	Hoarding	.17***	.13***	.12***
	Buying	.18***	.15***	.09*
	Believing Owning Things Makes for Happiness	.23***	.13**	.27***
	Valuing Money and Status	-.16***	-.06	-.10*
	Valuing Attract. & Sexiness	-.02	-.05	.00
	Philosophical Materialism	.04	.03	.09**
	Unmitigated Self-Interest	-.06	.04	-.01

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 838$ ). \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

*Externalizing problem tendencies.* As presented in Table 9, when entered into the equation on the first step, the seven facets of materialism taken together significantly accounted for variance in all the externalizing problem tendency indicators. The percentage of variance explained by the equation for each indicator was: Levenson's Primary Psychopathy (adjusted R-square change = 22%), Hare's Erratic Lifestyle (adjusted R-square change = 21%), Hare's Interpersonal Manipulation (adjusted R-square change = 19%), Hare's Callous Affect (adjusted R-square change = 18%) and Hare's Criminal Tendencies (adjusted R-square change = 7%).

The 6-item USI measure was entered next and explained a significant amount of additional variance. The percentage of variance explained by the equation for each indicator was: Hare's Callous Affect (adjusted R-square change = 10%), Levenson's Primary Psychopathy (adjusted R-square change = 7%), Hare's Criminal Tendencies (adjusted R-square change = 4%), Hare's Interpersonal Manipulation (adjusted R-square change = 1%) and Hare's Erratic Lifestyle (adjusted R-square change = 1%).

As presented in Table 10, reversing the entry order, USI was entered into the equation on the first step and significantly accounted for the percentages of the explained variance for all the externalizing problem tendency indicators. The percentage of variance explained by the equation for each indicator was: Hare's Callous Affect (adjusted R-square change = 19%), Levenson's Primary Psychopathy (adjusted R-square change = 17%), Hare's Interpersonal Manipulation (adjusted R-square change = 6%), Hare's Criminal Tendencies (adjusted R-square change = 6%), Levenson's Secondary

Table 9

*Study 1: Hierarchical Multiple Regression Analyses Examining the Prediction by USI of Externalizing Problem Tendencies when Contributions from Facets of Materialism were Controlled for*

		LP	HPIM	HPEL	HPCA	HPCT
Block 1	<i>R square change</i>	.22	.19	.21	.18	.07
	<i>Standardized Regression Coefficient</i>					
	<i>F change</i>	32.58***	27.36***	32.24***	25.99***	8.96***
	PG	-.11***	-.13***	-.16***	-.14***	-.18***
	Hoarding	-.02	.03	.12**	-.05	.00
	Buying	-.05	-.01	.05	-.01	-.03
	BOTMH	.13***	.14***	.07	.11**	.04
	VMS	.29***	.16***	.13***	.24***	.13***
	VAS	.13***	.22***	.33***	.07*	.12***
	PM	.22***	.18***	.03	.23***	.09*
Block 2	<i>R square change</i>	.07	.01	.01	.10	.04
	<i>Standardized Regression Coefficient</i>					
	<i>F change</i>	85.34***	11.82***	8.74**	106.7***	34.05***
	PG	-.13***	-.13***	-.16***	-.15***	-.19***
	Hoarding	-.01	.03	.12**	-.04	.01
	Buying	-.04	.00	.06	-.01	-.03
	BOTMH	.10**	.13***	.06	.08	.03
	VMS	.22***	.14***	.11**	.17***	.09*
	VAS	.12***	.21***	.33***	.06	.12***
	PM	.14***	.15***	.01	.15***	.03
	USI MX	.30***	.12***	.10**	.33***	.21***

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 838$ ). PG = Possession Guarding, BOTMH = Believing Owning Things Makes for Happiness, VMS = Valuing Money and Status, VAS = Valuing Attractiveness and Sexiness, PM = Philosophical Materialism, LP = Levenson's Primary Psychopathy, Hare's Interpersonal Manipulation, HPEL = Hare's Erratic Lifestyle, HPCA = Hare's Callous Affect, HPCT = Hare's Criminal Tendencies. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

Table 10  
*Study 1: Hierarchical Multiple Regression Analyses Examining the Prediction by Materialism of Externalizing Problem Tendencies when Contributions from USI were Controlled for*

		LP	HPIM	HPEL	HPCA	HPCT
Block 1	<i>R square change</i>	.17	.06	.03	.19	.06
<i>Standardized Regression Coefficients</i>						
	<i>F change</i>	176.72***	50.66***	26.85***	192.6***	50.02***
	USI MX	.42***	.24***	.18***	.43***	.24***
Block 2	<i>R square change</i>	.11	.14	.19	.09	.05
<i>Standardized Regression Coefficients</i>						
	<i>F change</i>	19.03***	20.95***	29.05***	14.02***	6.69***
	USI	.30***	.12***	.10**	.33***	.21***
	PG	-.13***	-.14***	-.16***	-.15***	-.19***
	Hoarding	-.01	.03	.12**	-.04	.01
	Buying	-.04	.00	.06	.01	-.02
	BOTMH	.10**	.13***	.06	.08*	.03
	VMS	.22***	.14***	.11**	.17***	.09*
	VAS	.12***	.21***	.33***	.06	.12***
	PM	.14***	.15***	.01	.15***	.03

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 838$ ). USI MX = Unmitigated Self-Interest Materialism Excluded, PG = Possession Guarding, BOTMH = Believing Owning Things Makes for Happiness, VMS = Valuing Money and Status, VAS = Valuing Attractiveness and Sexiness, PM = Philosophical Materialism, LPI = Levenson's Primary Psychopathy, Hare's Interpersonal Manipulation, HPEL = Hare's Erratic Lifestyle, HPCA = Hare's Callous Affect, HPCT = Hare's Criminal Tendencies. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

Psychopathy (adjusted R-square change = 3%), and Hare's Erratic Lifestyle (adjusted R-square change = 3%). The seven facets of materialism were entered next and contributed a significant amount of additional variance explained. The percentage of variance explained by the equation for each indicator was: Hare's Erratic Lifestyle (adjusted R-square change = 19%), Hare's Interpersonal Manipulation (adjusted R-square change = 14%), Levenson's Primary Psychopathy (adjusted R-square change = 11%), Hare's Callous Affect (adjusted R-square change = 9%) and Hare's Criminal Tendencies (adjusted R-square change = 5%).

*Social/subjective well-being.* As presented in Table 11, when entered into the equation on the first step, the seven facets of materialism taken together significantly explained variance for all the social/subjective well-being indicators. The percentage of variance explained by the equation for each indicator was: Subjective Well-Being (adjusted R-square change = 26%), Social Satisfaction (adjusted R-square change = 15%), Perceived Social Support (adjusted R-square change = 15%), and Social Well-Being (adjusted R-square change = 12%). The 6-item USI measure was entered next. When the seven facets of materialism were controlled for, the addition of USI significantly added 4% to the explained variance of Social Well-Being, but did not significantly contribute to the prediction of any other social/subjective well-being indicator.

Table 11

*Study 1: Hierarchical Multiple Regression Analyses Examining the Prediction by USI of Social/Personal Well-Being when Contributions from Facets of Materialism were Controlled for*

		Subjective Well-being	Social Well-being	Social Satisfaction	Perceived Social Support
Block 1	<i>R square change</i>	.26	.12	.15	.15
	<i>F change</i>	21.41***	6.66***	8.52***	8.70***
<i>Standardized Regression Coefficients</i>					
	PG	-.03	-.08	-.02	.05
	Hoarding	-.01	.05	.06	.03
	Buying	.05	-.05	.15*	.17**
	BOTMH	-.60***	-.34***	-.31***	-.31***
	VMS	.18**	.14*	-.10	.00
	VAS	.03	.05	.05	.08
	PM	-.06	-.09	-.17**	-.24***
Block 2	<i>R square change</i>	.00	.04	.00	.01
	<i>F change</i>	.73	16.60***	1.65	5.56*
<i>Standardized Regression Coefficients</i>					
	PG	-.02	-.07	-.02	.05
	Hoarding	-.01	.05	.06	.03
	Buying	.05	-.06	.14*	.16**
	BOTMH	-.58***	-.32***	-.31***	-.30***
	VMS	.20**	.19**	-.07	.03
	VAS	.03	.06	.05	.08
	PM	-.04	-.04	-.15**	-.20**
	USI MX	-.04	-.22***	-.07	-.13*

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon (N=838). USI MX= Unmitigated Self-Interest Materialism Excluded, PG= Possession Guarding, BOTMH= Believing Owning Things Makes for Happiness, VMS= Valuing Money and Status, VAS= Valuing Attractiveness and Sexiness, PM= Philosophical Materialism, LPI= Levenson's Primary, Psychopathy, LPII= Levenson's Secondary Psychopathy, Hare's Interpersonal Manipulation, HPEL= Hare's Erratic Lifestyle, HPCA= Hare's Callous Affect, HPCT= Hare's Criminal Tendencies. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

As presented in Table 12, reversing the entry order, USI was entered into the equation on the first step and significantly accounted for 7% of the explained variance in Social Well-Being. The seven facets of materialism were entered next and significantly contributed an additional explained more than 5% of the explained variance in Social Well-Being.

Table 12

*Study 1: Hierarchical Multiple Regression Analyses Examining the Prediction by Materialism of Externalizing Problem Tendencies when Contributions from USI were Controlled for*

		Social Well-Being
Block 1	<i>R square change</i>	.07
	<i>F change</i>	24.96***
	Unmitigated Self-Interest (Materialist Values Excluded)	-.26***
Block 2	<i>R square change</i>	.09
	<i>F change</i>	5.45***
	Unmitigated Self-Interest (Materialist Values Excluded)	-.22***
	Possession Guarding	-.07
	Hoarding	.05
	Buying	-.06
	Believing Owning Things Makes for Happiness	-.32***
	Valuing Money and Status	.19**
	Valuing Attractiveness & Sexiness	.06
Physical Materialism	-.04	

*Note.* Results were based on the student sample of the Psychology Department in University of Oregon ( $N = 360-415$ ). \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

### Study 1: Initial Interpretation of Results

The first part of Study 1 explored whether different facets of materialism demonstrated distinct patterns of correlations with aspects of psychosocial maladjustment, to determine whether it would be statistically useful to treat each individual facet as a separate construct.

#### *Three Levels of Materialism and Aspects of Psychosocial Maladjustment*

*Internalizing problem tendency indicators.* I first examined which level of materialism (Behavioral, Values, and Philosophical) was most associated with internalizing problem tendencies. The results suggest that when adjusting for shared variance among the measures of the three levels of materialism, internalizing problem tendencies were most associated with Materialism on the Behavioral Level. Among the three internalizing problem tendency indicators (i.e., Emotional Instability, Internalizing Negative Emotionality, and Negative Emotionality), all three were positively correlated with Materialism on the Behavioral Level, but none was correlated with either Materialism on the Values Level or Materialism on the Philosophical Level.

Next, I examined whether the three facets of materialism on the Behavioral Level (i.e., Possession-Guarding, Hoarding, and Buying) demonstrated patterns of correlations with internalizing problem tendencies that were consistent with each other, and with the general measure of Materialism on the Behavioral Level. The results suggest that this was the case. When adjusting for the shared variance from Possession-Guarding, Hoarding, and Buying, all three internalizing problem tendency indicators were positively correlated



with Possession-Guarding, Hoarding, and Buying. This result tends to support aggregating these facets.

I also examined whether the three facets of materialism on the Values Level (i.e., Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness) demonstrated patterns of correlation with internalizing problem tendencies that were consistent with each other and with the general measure of Materialism on the Values Level. The results suggest that none of these indicators was correlated with either Valuing Money and Status or Valuing Attractiveness and Sexiness. However, all three internalizing problem tendency indicators were positively and significantly correlated with Believing Owning Things Makes for Happiness. This distinct pattern of correlation was otherwise not observed when Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness were combined to form a general measure of Materialism on the Values Level. This result tends not to support aggregating these facets.

#### *Externalizing Problem Tendency Indicators*

I first examined which aspect of materialism (Behavioral, Values, and Philosophical) was most associated with externalizing problem tendencies. The results suggest that when adjusting for the shared variance among the measures of the three levels of materialism, externalizing problem tendencies were more likely to be correlated with Materialism on the Values Level and Materialism on the Philosophical Level. All five externalizing problem tendency indicators (i.e., Levenson's Primary Psychopathy, Interpersonal Manipulation, Callus Affect, Erratic Lifestyle and Criminal Tendency)

were positively correlated with Materialism on the Values level, and three were positively correlated with Materialism on the Philosophical Level (i.e., Levenson's Primary Psychopathy, Interpersonal Manipulation, and Callus Affect). However, none of the externalizing problem tendency indicators was positively correlated with Materialism on the Behavioral Level.

I next examined whether the three facets of materialism on the Behavioral Level (i.e., Possession-Guarding, Hoarding, and Buying) demonstrated patterns of correlations with externalizing problem tendencies that were consistent with each other, and with the general measure of Materialism on the Behavioral Level. The results suggest that when adjusting for shared variance, individual facets of materialism on the Behavioral level (i.e., Possession-Guarding, Hoarding, and Buying) demonstrated very distinct correlational patterns, some of which involved significant correlations in opposite directions. For example, although four of the five externalizing problem tendency indicators were *positively* correlated with Buying (i.e., all except for Callous Affect), one indicator was *negatively* correlated with Possession-Guarding (i.e., Criminal Tendency). These distinct patterns of correlations with externalizing problem tendencies were not otherwise observed when Possession-Guarding, Hoarding, and Buying were combined to form a general measure of Materialism on the Behavioral Level. As such, statistically it would be more useful to treat Possession-Guarding, Hoarding, and Buying as three distinct facets of materialism than to combine the three to form a general measure of Materialism on the Behavioral Level.

I also examined whether the three facets of materialism on the Values Level (i.e., Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness) demonstrated patterns of correlation with externalizing problem tendencies that were consistent with each other and with the general measure of Materialism on the Values Level. The results suggest that when adjusting for shared variance, Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness were all positively correlated with externalizing problem tendencies, but to different degrees. Four out of five externalizing problem tendency indicators were positively correlated with Valuing Money and Status (i.e., except for Callous Affect), and four were positively correlated with Valuing Attractiveness and Sexiness (i.e., Levenson's Primary Psychopathy, Interpersonal Manipulation, Erratic Lifestyle, and Callous Affect). None was correlated with Believing Owning Things Makes for Happiness. This result tends to provide only modest support for aggregating these indicators.

#### *Social/Subjective Well-Being Indicators*

I first examined which aspect of materialism (Behavioral, Values, and Philosophical) was most negatively associated with social/subjective well-being outcomes. The results suggest that when adjusting for the shared variance from the general measures of the three levels of materialism, only Materialism on the Values Level and Materialism on the Philosophical Level were negatively associated with social/subjective well-being indicators. Specifically, among the four well-being indicators, two were negatively and significantly correlated with Materialism on the

Values Level (i.e., Subjective Well-Being and Social Satisfaction) and one with Materialism on the Philosophical Level (i.e., Perceived Social Support). None of the well-being outcomes was correlated with Materialism on the Behavioral Level.

I next examined, when adjusting for the shared variance, whether the three facets of materialism on the Behavioral level demonstrated patterns of correlations with well-being outcomes that were consistent with each other, and with the general measure of Materialism on the Behavioral Level. The results suggest yes: consistent with the general measure of Materialism on the Behavioral Level, Possession-Guarding, Buying, and Hoarding did not predict any of the well-being indicators.

I also examined, when adjusting for the shared variance, whether the three facets of materialism on the Values Level demonstrated patterns of correlation with well-being outcomes that were consistent with each other and with the general measure of Materialism on the Values Level. The results suggest that the relations between the general measure of Materialism on the Values Level and social/subjective well-being indicators seemed to be most accounted for by Believing Owning Things Makes for Happiness; three well-being indicators were negatively and significantly correlated with Believing Owning Things Makes for Happiness (i.e., Subjective Well-Being, Social Well-Being, and Perceived Social Support), and none were negatively correlated with either Valuing Money and Status or Valuing Attractiveness and Sexiness. This result tends not to support aggregating of these indicators.

In sum, Materialism on the Behavioral Level, Materialism on the Values Level, and Materialism on the Philosophical Level were found to be associated with different

aspects of psychosocial maladjustment. For example, whereas Materialism on the Behavioral Level was most associated with internalizing problem tendencies, Materialism on the Values Level was most associated with externalizing problem tendencies.

However, a further examination of the relations among the three facets of Materialism on the Behavioral Level (i.e., Possession-Guarding, Hoarding, and Buying) and aspects of psychosocial maladjustment showed that these three facets of materialism sometimes demonstrated differing patterns of correlation that would otherwise not be observed when aggregated into a general measure of Materialism on the Behavioral Level.

These results suggest that although Possession-Guarding, Hoarding, and Buying could be conceptualized as operating on the same level, statistically it may be more useful to treat them as three separate constructs than to combine them into a general measure of Materialism on the Behavioral Level. Similarly, an examination of the relations between the three facets of Materialism on the Values Level (i.e., Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness) demonstrated differing patterns of relations with some aspects of psychosocial maladjustment that would otherwise not be observed when aggregated into a general measure of Materialism on the Behavioral Level. This suggests that although Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness could be conceptualized as operating on the same level, statistically it may be more useful to treat them as three separate constructs than to combine them into a general measure of Materialism on the Values Level.

*Seven Facets of Materialism and Aspects of  
Psychosocial Maladjustment*

When adjusting for the shared variance among the seven facets of materialism, internalizing problem tendencies were more likely to be positively associated with facets of materialism on the behavioral level (i.e., Possession-Guarding, Hoarding, and Buying). Except for Believing Owning Things Makes for Happiness, no facet on the values level or philosophical level was correlated with internalizing problem tendencies. In contrast, externalizing problem tendencies were more likely to be associated with facets of materialism on the Values Level (Believing Owning Things Makes for Happiness, Valuing Money and Status, and Valuing Attractiveness and Sexiness) and Philosophical Materialism. Finally, negative social/subjective well-being outcomes were more likely to be associated with Believing Owning Things Makes for Happiness and Philosophical Materialism.

One noteworthy finding with respect to the relation between aspects of materialism and externalizing problem tendency indicators was that, when adjusting for the shared variance among the seven facets of materialism, Buying was no longer associated with any of the externalizing problem tendencies. This pattern between Buying and externalizing problem tendency indicators was very different from what was observed earlier when only adjusting for the shared variance among facets of materialism on the Behavioral Level (i.e., Possession-Guarding, Buying, and Hoarding). A possible explanation would be that the prominent associations between Buying and externalizing problem tendency indicators observed earlier were not accounted for by Buying per se,

but instead by facets of materialism on the Values Level that were related to both Buying and externalizing problem tendencies. Indeed, an examination of the zero-correlations among facets of materialism suggest that, although not correlated with Philosophical Materialism, Buying was significantly correlated with facets of materialism on the Values Level, especially with Believing Owning Things Makes for Happiness ( $r = .47$ ) and Valuing Money and Status ( $r = .58$ ). As a result, Buying's correlations with externalizing problem tendencies diminished when variance from facets of materialism on the values level was also controlled for. In other words, facets of materialism on the Values Level may function as a mediator in the relation between Buying and externalizing problem tendencies.

*Relative Contributions of Facets of Materialism and  
USI to Psychosocial Maladjustment*

After exploring the relations between facets of materialism and aspects of psychosocial maladjustment, the second part of Study 1 examined whether the relations between facets of materialism with aspects of psychosocial maladjustment observed above were more likely to be accounted for by facets of materialism alone, or Unmitigated Self-Interest alone, or both. If materialism had a direct relation with psychosocial maladjustment, I examined which specific facets of materialism were involved. Note that the Unmitigated Self-Interest measure included in all the analyses in Study 1 was a 6-item scale that excluded items from Materialist Values, so that the unique effect of Unmitigated Self-Interest independent from materialism, if there was any, could be identified.

A zero-correlation analysis suggest that Unmitigated Self-Interest was positively and significantly correlated with Possession-Guarding, Buying, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness, and Philosophical Materialism. However, when adjusting for the shared variance among the seven facets of materialism, Unmitigated Self-Interest was only positively correlated with Valuing Money and Status and Philosophical Materialism. This is consistent with findings in lexical studies (Krauss, 2006; Saucier, 2000; Saucier, Zhou, & Shen-Miller, 2009), in which Materialist Values and Philosophical Materialism were found to be factors of Unmitigated Self-Interest.

#### *Internalizing Problem Tendency Indicators*

Results from the hierarchical regression analyses suggest that Unmitigated Self-Interest made no independent contribution to any of the internalizing problem tendency indicators beyond the variance explained by facets of materialism. This suggests that materialism's relations with internalizing problem tendencies might be accounted for by materialism alone, and not by a broader construct in which it is embedded. Specifically, Possession-Guarding, Hoarding, Buying, and Believing Owning Things Makes for Happiness were likely to account for this relation.

#### *Externalizing Problem Tendency Indicators*

Hierarchical regression analyses suggest that Unmitigated Self-Interest emerged as a significant independent predictor for all five externalizing problem tendency indicators, beyond the variance explained by facets of materialism. These results suggest



that Unmitigated Self-Interest accounted for additional variance beyond materialism's relation with externalizing problem tendencies. On the other hand, when controlling for variance from Unmitigated Self-Interest, entering the seven facets of materialism into the equation also significantly increased the amount of variance explained for all five externalizing problem tendency indicators. Specifically, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness and Philosophical Materialism were likely to account for the relations. This suggests that materialism accounted for additional variance beyond Unmitigated Self-Interest's relation with externalizing problem tendencies.

#### *Social/Subjective Well-Being Indicators*

Results from the hierarchical regression analyses suggest that when controlling for variance from facets of materialism, Unmitigated Self-Interest emerged as a significant independent predictor for Social Well-Being. On the other hand, when controlling for variance from Unmitigated Self-Interest, entering seven facets of materialism into the equation also significantly increased the amount of variance explained in predicting Social Well-Being. Specifically, Believing Owning Things Makes for Happiness was likely to account for the relation.

For Subjective Well-Being, Social Satisfaction, and Perceived Social Support, Unmitigated Self-Interest did not emerge as a significant independent predictor, suggesting that materialism's relations with these three social/subjective well-being indicators were accounted for by materialism alone. Specifically, Believing Owning Things Makes for Happiness seemed to account for these relations.

### *Conclusions*

Consistent with previous research, the first part of Study 1 indicates that materialism in general positively predicts psychosocial maladjustment. However, different facets of materialism were likely to be associated with different aspects of psychosocial maladjustment. Whereas Possession-Guarding, Hoarding, and Buying were found to be most associated with internalizing problem tendencies, Valuing Money and Status, Valuing Attractiveness and Sexiness and Philosophical Materialism were most associated with externalizing problem tendencies. Believing Owning Things Makes for Happiness was found to be associated with internalizing problem tendencies, externalizing problem tendencies, and negative well-being outcomes. The seven facets of materialism each demonstrated distinct patterns of correlations with aspects of psychosocial maladjustment, suggesting that statistically it would be useful to treat them as separate constructs.

Next, I further examined whether the observed relations between facets of materialism and aspects of psychosocial maladjustment were directly accounted for by facets of materialism alone, by Unmitigated Self-Interest alone, or by both, to examine the validity of the crowding-out hypothesis (Kasser, 2002) and the hidden-hand hypothesis (Lane, 2000). As discussed in Chapter Two, the crowding-out hypothesis (Kasser, 2002) argues that materialism's relations with psychosocial maladjustment are directly accounted for by materialism. However, a hidden-hand hypothesis (Lane, 2000) argues that for facets of materialism involving beliefs and values, relations with psychosocial maladjustment are not directly account for by materialism, but are instead

accounted for by a broader worldview orientation that could be labeled as Unmitigated Self-Interest (Saucier, 2000). I controlled for the shared variance among materialism and Unmitigated Self-Interest, and then examined whether materialism and/or Unmitigated Self-Interest uniquely contributed to the predictions of psychosocial maladjustment. If materialism alone uniquely predicted psychosocial maladjustment, the crowding-out hypothesis would be supported. If Unmitigated Self-Interest alone uniquely predicted psychosocial maladjustment, the hidden-hand hypothesis would be supported. If both materialism and Unmitigated Self-Interest both uniquely predicted psychosocial maladjustment, a third possibility that points perhaps to a blend of both the crowding-out hypothesis and the hidden-hand hypothesis would be considered.

The results suggest that in general, the crowding-out hypothesis was supported; when controlling for Unmitigated Self-Interest, materialism did make a unique contribution to the prediction for all aspects of psychosocial maladjustment. Specifically, different facets of materialism were likely to be responsible for materialism's relations with different aspects of psychosocial maladjustment. Whereas Possession-Guarding, Buying, and Hoarding were more likely to account for materialism's relations with internalizing problem tendencies, Valuing Money and Status, Valuing Attractiveness and Sexiness, and Philosophical Materialism were more likely to account for materialism's relations with externalizing problem tendencies. Believing Owning Things Makes for Happiness was likely to account for materialism's relations with internalizing problem tendencies, externalizing problem tendencies, and social/subjective well-being indicators.

However, the crowding-out hypothesis alone seems not to provide a complete account for facets of materialism involving beliefs and values. The results suggest that above and beyond the variance explained by facets of materialism, Unmitigated Self-Interest uniquely contributed to the prediction of some aspects of psychosocial maladjustment, including all five externalizing problem tendency indicators, and Social Well-Being. In other words, for the relations between materialism and these aspects of psychosocial maladjustment, the relations were likely to be accounted for by both materialism and Unmitigated Self-Interest, supporting both the crowding-out hypothesis and the hidden-hand hypothesis.

As discussed in Chapter Two, an unpublished content analysis by Saucier indicated that Unmitigated Self-Interest is likely a construct with multiple facets. If Unmitigated Self-Interest accounts for the relations between materialism and aspects of psychosocial maladjustment, such as externalizing problem tendencies, the next question raised would be which facets of Unmitigated Self-Interest are likely to be associated with psychosocial maladjustment. Study 2 of this dissertation research addressed this question.

Both the crowding-out hypothesis and the hidden-hand hypothesis imply a casual direction in which aspects of psychosocial maladjustment are outcomes caused by either materialism or Unmitigated Self-Interest. Since Study 1 was based on concurrent data, it was not possible to verify the casual directions implicated in these two hypotheses. In particular, although the results of Study 1 found that facets of materialism independently contributed to the prediction of aspects of psychosocial maladjustment, hypotheses derived from a reversed causal direction are also likely plausible. For example, some

researchers have conceptualized materialism as the outcome of psychosocial maladjustment. In such a context, materialism is often believed to be a coping mechanism that compensates for maladjusted experiences (e.g. Abramson & Inglehart, 1995; Chang & Arkin, 2002; Cohen & Cohen, 1996; Inglehart & Abramson, 1994; Kasser, 2002; Kasser et al., 1995; Rindfleisch et al., 1997; Solberg et al, 2004; Williams et al., 2000). Furthermore, although the correlation patterns between facets of materialism with externalizing problem tendencies and Social Well-Being were consistent with the hidden-hand hypothesis, the causal relation between Unmitigated Self-Interest and psychosocial maladjustment still needs to be established. Using a longitudinal approach, Study 3 of this dissertation research took an initial step to address the issue of casual directions between materialism, Unmitigated Self-Interest, and aspects of psychosocial maladjustment.

## CHAPTER IV

### STUDY 2: EXAMINING THE CONTRIBUTION OF FACETS OF UNMITIGATED SELF-INTEREST TO PSYCHOSOCIAL MALADJUSTMENT

The primary goal for study 2 was to examine the relation between facets of Unmitigated Self-Interest and psychosocial maladjustment. As discussed in Chapter 2, using lexical studies, Saucier (2000; Saucier, Zhou, & Shen-Miller, 2009; see also Krauss, 2006) found that the construct of materialism that involves beliefs and values is embedded in Unmitigated Self-Interest, a multi-faceted worldview construct that is broader than materialist beliefs and values. A hidden-hand hypothesis argues that it is such a worldview orientation that accounts for materialism's relation with psychosocial maladjustment. Indeed, Study 1 of this dissertation research demonstrated that Unmitigated Self-Interest did make a unique contribution to the prediction of psychosocial maladjustment beyond materialism. Study 2 extended this inquiry by further examining which facets of Unmitigated Self-Interest are most likely to account for the relation: Do all facets, or just a subset of facets of Unmitigated Self-Interest, predict psychosocial maladjustment?

## Study 2: Method

### *Participants*

Participants were members of a Eugene-Springfield Community Sample. The majority of these participants completed a large number of surveys between 1993-2008. This community sample is managed by Goldberg (2008). The average age of participants in 1993 was 49.62 years, and ranged in age from 18 to 89. Among these participants, 610 (female = 345) completed surveys that were used in Study 2. Participants were identified from lists of local homeowners and were recruited by mail in 1993. Data were also collected through the mail. Items used in Study 2 were administered at different times in the period between years 2000-2008 (details about the years in which each measure was administered are in the *Materials* section below).

### *Materials*

#### *Thirteen Facets of USI (Administered in 2000)*

This measure includes fifty-two items from the long, 13-facet Unmitigated Self-Interest Measure developed by Saucier (2004) in a lexical study. An unpublished study conducted by Saucier (2004) suggests that Unmitigated Self-Interest includes thirteen clusters. Among these clusters, Materialist Values, Commercialism, and Physicalism fit the conceptualization of materialism that involves beliefs and values (i.e., materialist belief/values) used in this paper, and most resemble the facets of “Valuing Money and Status” and “Philosophical Materialism” used in Study 1. Materialist Values includes items such as “Worldly possessions are the greatest good and the highest value in life”

and “Nonmaterial attributes are more important than outward beauty” (reverse scored). Commercialism includes items such as, “I emphasize monetary success and profit” and “I put little emphasis on monetary success and profit” (reverse scored). Physicalism includes items such as, “All phenomena can be explained in terms of natural causes and laws, without attributing moral, spiritual, or supernatural significance to them” and “Physical laws cannot explain some mental phenomena” (reverse scored). The four Physicalism items are the same items used to measure Philosophical Materialism in Study 1.

The other facets of Unmitigated Self-Interest identified by Saucier (2004) are: (1) Hedonism, which includes items such as, “The purpose of the senses is the highest good” and “There is a higher good than the pleasure of the senses” (reverse scored), (2) Egoism/Solipsism, which includes items such as “The self is the only reality,” and “People ought to be motivated by something beyond their own self-interest,” (reverse scored), (3) Machiavellianism, which includes items such as “criminals are like other people except that the criminals were stupid enough to get caught” and “Honesty is always the best policy; one should always be honest” (reverse scored), (4) Animalism, which includes items such as “The human being is purely animal with no spiritual nature” and “The human being is more than just animalistic, instinctive desires” (reverse scored), (5) Elitism/Plutocracy, which includes items such as “Certain persons, or members of certain classes or groups, deserve favored treatment because of their superiority (of intellect, social status, or financial resources)” and “Status and political power ought to have nothing to do with how much property and money you have” (reverse scored), (6)



Antiwelfarism, which includes items such as “Government supported social welfare programs should be abolished” and “The government ought to take responsibility for the individual and social welfare of its citizens” (reverse scored), (7) Exploitation of Nature, which includes items such as “It is important that we conquer Nature, and make Nature serve our purpose” and “I favor protecting the environment from destruction and pollution” (reverse scored), (8) Ethnocentrism, which includes items such as “I believe in the superiority of my own ethnic group” and “My own race is not superior to any other race” (reverse scored), (9) Absolutism/Monarchism, which includes items such as “Government authority ought to be centralized under an absolute ruler” and “I am opposed to having a king or queen rule a country” (reverse scored), and (10) Illusionism, which includes items such as “The material world is an illusion created by the senses” and “Physical objects exist; they are not mere ideas we have” (reverse scored).

*Psychosocial Maladjustment (Administered in 2008)*

*Internalizing problem tendencies.* *Emotional Instability* was measured by eight items from Saucier’s (1994) Mini-Marker scales. This scale included adjectives such as “moody” and “touchy.” *Internalizing Negative Emotionality* was measured by five items developed by Saucier. This scale included items such as “I am afraid of many things,” and “I look at the bright side of life (reverse scored).

*Externalizing problem tendencies.* The *Externalizing Problems Indicator* was developed by Saucier and includes five items from the International Personality Item Pool (Goldberg et al., 2006). Example items are “I get back at people who insult me” and “I am not good at deceiving others” (reverse scored).

*Well-being indicator.* *Subjective Well-being* was measured by the Satisfaction with Life Scale developed by Pavot and Diener (1993). Examples of items are “In most ways my life is close to my ideal,” and “If I could live my life over, I would change almost nothing” (reverse scored).

## Study 2: Data Analysis

To examine the relative contribution of facets of Unmitigated Self-Interest beyond materialism on psychosocial maladjustment, two sets of hierarchical multiple regressions were conducted on each outcome variable (i.e. Emotional Instability, Internalizing Negative Emotionality, Externalizing Problem Indicator, and Subjective Well-Being). In the first set of regressions, the materialist beliefs/values clusters (i.e., Materialist Values, Commercialism, and Physicalism) were entered on the first step, followed by the addition of the other ten facets of Unmitigated Self-Interest (i.e., Absolutism, Animalism, Antiwelfarism, Egoism/Solipsism, Elitism/Plutocracy, Ethnocentrism, Exploitation of Nature, Hedonism, Illusionism, and Machiavellianism) on the second step. Table 13 summarizes results of the first set of hierarchical multiple regressions.

As will be discussed later, results from the first set of regressions found that the three “isms” from the materialist beliefs/values clusters (i.e., Materialist Values, Commercialism, and Physicalism), when entered into the equation first, significantly contributed to the prediction of the Externalizing Problems Indicator. To examine whether this relation was directly accounted for by materialism, or by Unmitigated Self-Interest instead, a second set of multiple regressions was then conducted. In the second

Table 13

*Study 2: Hierarchical Multiple Regression Analyses Examining the Contributions of Other Facets of USI to Psychosocial Maladjustment Indicators*

		EI	INE	EPI	SWB
Block1	<i>R square change</i>	.02	.02	.06	.02**
	<i>F change</i>	4.71**	3.49*	13.74***	4.02**
<i>Standardized Regression Coefficients</i>					
	Materialist Values	.14**	.13**	.11**	-.16***
	Commercialism	.05	.02	.18***	.04
	Physicalism	-.04	.00	.06	.05
Block 2	<i>R square change</i>	.06	.05	.09	.02
	<i>F change</i>	3.35***	2.63**	5.64***	1.10
<i>Standardized Regression Coefficients</i>					
	Machiavellianism	.14**	.11*	.20***	-.06
	Hedonism	.13**	.10*	.13**	-.04
	Commercialism	.03	.00	.15***	.04
	Ethnocentrism	.10*	.13**	.08	-.06
	Physicalism	-.11*	-.08	-.04	.12*
	Materialist Values	.02	.04	.00	-.12*
	Absolutism	-.01	-.02	.07	-.02
	Animalism	.01	.06	.05	-.09
	Antiwelfarism	-.02	-.06	.05	.05
	Egoism	.02	-.04	-.03	.01
	Elitism	.00	-.01	.06	.02
	Exploitation of Nature	.00	.02	-.05	.03
	Illusionism	.06	-.01	-.07	.04

*Note.* Results are based on Eugene-Springfield Community Sample (N= 610). EI= Emotional Instability, INE= Internalizing Negative Emotionality, EPI= Externalizing Problem Indicator, SWB= Subjective Well-Being. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

set of multiple regressions, significant and marginal predictors (i.e., Machiavellianism and Hedonism) that were entered in step two in the first set of hierarchical multiple regressions were entered on step one, followed by Materialist Values, Commercialism, and Physicalism. Table 14 summarizes the results of the second set of hierarchical multiple regressions.

Table 14

*Study 2: Hierarchical Multiple Regression Analysis Examining the Unique Contribution of Materialism to the Externalizing Problems Indicator when Variance from Machiavellianism and Hedonism was Controlled*

		Externalizing Problems Indicator
Block 1	<i>R square change</i>	.11***
	<i>F change</i>	24.39***
<i>Standardized Regression Coefficients</i>		
	Machiavellianism	.24***
	Hedonism	.15***
Block 2	<i>R square change</i>	.03**
	<i>F change</i>	5.54***
<i>Standardized Regression Coefficients</i>		
	Machiavellianism	.24***
	Commercialism	.17***
	Hedonism	.12**
	Materialist Values	-.02
	Physicalism	-.02

*Note.* Results are based on Eugene-Springfield Community Sample ( $N = 610$ ).  
\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ \*\*\*.

## Study 2: Results

### *Threshold for Statistical Significance*

Because many outcome variables were included in these analyses, increasing the risk of Type I error, a relatively stringent threshold for statistical significance was used ( $p < .001$ ). Coefficients which were significant at a  $p = .01$  level were considered as marginal. Except as noted, all beta weights described as significant satisfy this stringent criterion. However, tables do provide information on which coefficients were significant at less stringent alpha levels ( $p < .05$ ).

### *Hierarchical Regression Analyses*

*Emotional instability.* As presented in Table 13, when entered into the equation on the first step, Materialist Values, Commercialism, and Physicalism altogether did not significantly account for the variance explained in Emotional Instability. The other ten facets of USI were added next, significantly contributing an additional 6% of explained variance in Emotional Instability scores. In the full model, Machiavellianism ( $\beta = .14$ ), and Hedonism ( $\beta = .13$ ) both positively and marginally correlated with Emotional Instability. Materialist Values was no longer a marginal predictor in the full model.

*Internalizing negative emotionality.* As presented in Table 13, when entered into the equation on the first step, Materialist Values, Commercialism, and Physicalism altogether did not significantly account for the variance in Internalizing Negative Emotionality. The other ten facets of USI were added next, significantly contributing an additional 5% of explained variance in Internalizing Negative Emotionality. In the full

model, Ethnocentrism ( $\beta = .13$ ) was positively and marginally correlated with Internalizing Negative Emotionality.

*Externalizing problems indicator.* As presented in Table 13, when entered into the equation on the first step, Materialist Values, Commercialism, and Physicalism altogether did not significantly account for the variance in the Externalizing Problem Indicator. The other ten facets of USI were added next, significantly contributing an additional 14% of explained variance in the Externalizing Problems Indicator. In the full model, Machiavellianism ( $\beta = .20$ ) and Commercialism ( $\beta = .15$ ) were both positively and significantly correlated with Externalizing Problem Indicator, and Hedonism ( $\beta = .13$ ) was positively and marginally correlated with the Externalizing Problem Indicator. The R-square change in step 2 exceeded that in the first step.

As presented in Table 14, reversing the entry order, Machiavellianism and Hedonism were entered first and altogether significantly accounted for 11% of the variance of the Externalizing Problem Indicator. Among these predictors, Machiavellianism ( $\beta = .24$ ) and Hedonism ( $\beta = .15$ ) both were positively and significantly correlated with the Externalizing Problem Indicator. The materialist beliefs/values cluster (i.e., Materialist Values, Commercialism and Physicalism) was entered next. With Machiavellianism and Hedonism, the materialist beliefs/values cluster significantly contributed an additional 3% of variance to the prediction of the Externalizing Problem Indicator. In the full model, Machiavellianism ( $\beta = .24$ ) and Commercialism ( $\beta = .17$ ) both were positively and significantly correlated with the

Externalizing Problem Indicator, and Hedonism ( $\beta = .12$ ) was positively and marginally correlated with the Externalizing Problem Indicator.

*Subjective well-being.* As presented in Table 13, when entered into the equation on the first step, Materialist Values, Commercialism, and Physicalism altogether did not significantly account for the variance in Subjective Well-Being. The other ten facets of USI were added next, but did not significantly contribute to additional variance explained in Subjective Well-Being.

### Study 2: Initial Interpretation of Results

Study 2 examined the relations between facets of Unmitigated Self-Interest and psychosocial maladjustment. In particular, I examined among all facets of Unmitigated Self-Interest, whether facets of Unmitigated Self-Interest beyond materialist beliefs/values significantly contributed to the prediction of psychosocial maladjustment, and if so, which facets of Unmitigated Self-Interest were more likely to account for such relations. Note that under the framework in which materialist beliefs/values are grouped together to represent one facet of the multi-faceted worldview construct of Unmitigated Self-Interest, facets of materialism that involve behavioral tendencies (i.e., Possession-Guarding, Hoarding, and Buying) were not relevant and hence were not included in the analysis.

The findings of Study 2 suggested that beyond materialist beliefs/values, facets of Unmitigated Self-Interest did significantly contribute to the prediction of three psychosocial maladjustment indicators. These indicators included one (i.e., the Externalizing Problems Indicator) that was positively and significantly predicted by

materialism and two (i.e., Emotional Instability and Internalizing Negative Emotionality) that were not predicted by materialism. Specifically, although the Externalizing Problem Indicator was positively and significantly predicted by materialist beliefs/values, an examination of the R-square change suggested that the amount of variance explained by facets of Unmitigated Self-Interest beyond the grouping of materialist beliefs/values exceeded that explained by materialism only. This suggests that Unmitigated Self-Interest in general is a better predictor of psychosocial maladjustment indicators than materialism alone.

Among the ten facets of Unmitigated Self-Interest beyond materialist beliefs/values, Machiavellianism and Hedonism appeared to be the ones that accounted for the relations between Unmitigated Self-Interest and psychosocial maladjustment. In particular, Machiavellianism was the strongest predictor. It was positively and significantly correlated with one psychosocial maladjustment indicator (i.e., the Externalizing Problem Indicator) and positively marginally correlated with one (i.e., Emotional Instability). Hedonism positively and marginally predicted two psychosocial maladjustment indicators (i.e., Emotional Instability and the Externalizing Problem Indicator).

In sum, Study 2 found that beyond the variance explained by materialism, Unmitigated Self-Interest overall was related to Emotional Instability, Internalizing Negative Emotionality, and the Externalizing Problems Indicator. It was a stronger predictor than materialism alone. Specifically, Machiavellianism and Hedonism were most likely to be the facets of Unmitigated Self-Interest accounting for such relations.



It is worth noting that the constructs of materialism included in Study 2 were only those that involve beliefs and values. Consistent with Study 1, Study 2 found that both Unmitigated Self-Interest and materialism beliefs and values were likely to contribute to the prediction of externalizing problem tendencies, but not to internalizing problem tendencies or subjective well-being. As such, Study 1 and Study 2 results provide support for both the crowding-out hypothesis and the hidden-hand hypothesis for addressing what accounts for materialism's relation with externalizing problem tendencies.

However, inconsistent with Study 1, in which Unmitigated Self-Interest was not found to make a unique contribution to the prediction of internalizing problem tendencies, Study 2 showed that Unmitigated Self-Interest did uniquely contribute to Emotional Instability and Internalizing Negative Emotionality. Note however, that whereas in Study 2, Unmitigated Self-Interest was measured using a full scale, in Study 1 it was measured only by an abbreviated scale in which variance from Machiavellianism was not included. The results in Study 2 suggest that it is possible that Unmitigated Self-Interest was positively related to internalizing problem tendencies, and that this relation might be specifically accounted for by Machiavellianism. These results suggest also that how Unmitigated Self-Interest is measured may make a difference in aspects of psychosocial maladjustment predicted.

## CHAPTER V

### STUDY 3: TEMPORAL RELATIONS AMONG MATERIALISM, UNMITIGATED SELF-INTEREST, AND PSYCHOSOCIAL MALADJUSTMENT

The relation between materialism and psychosocial maladjustment is complex and probably bidirectional. As described in Chapter Two, some research has endorsed a theoretical view that sees psychosocial maladjustment as an antecedent of materialism (psychosocial maladjustment → materialism; e.g., Abramson & Inglehart, 1995; Chang & Arkin, 2002; Cohen & Cohen, 1996; Inglehart & Abramson, 1994; Kasser, 2002; Kasser, Ryan, Zax, & Sameroff, 1995; Rindfleisch, Burroughs & Denton, 1997; Solberg, Diener & Robinson, 2004; Williams, 2000). In such a context, materialism is often conceptualized as a compensation mechanism that arises in response to maladjusted experiences, such as anxiety or insecurity. On the other hand, hypotheses derived from a reversed direction (materialism → psychosocial maladjustment) are also plausible. For example, in addressing what may account for *materialist beliefs/values' relations* with psychosocial maladjustment, both the crowding-out hypothesis (Kasser, 2002) and the hidden-hand hypothesis (Lane, 2000) described in Chapter Two treat aspects of maladjustment as outcome variables that follow the presence of materialist beliefs/values, although the two hypotheses vary on what may account for the relation (i.e. materialist beliefs/values, or Unmitigated Self-Interest).

To date, most empirical studies that examined materialism's relation with psychosocial maladjustment, including Study 1 in this dissertation research, were cross-sectional in nature. To establish the directionality between materialism and psychosocial maladjustment, it is important to evaluate the relation(s) between/among these constructs based on a cross-lagged analysis of longitudinal data (Cohen, Cohen, West, & Aiken, 2004). With the stability of variables statistically controlled for, longitudinal cross-lagged models can assess whether earlier psychosocial maladjustment predicts later materialism, and, conversely, whether earlier materialism predicts later psychosocial maladjustment. Additionally, findings from Study 1 of this dissertation research demonstrated that different facets of materialism were associated with different aspects of psychosocial maladjustment. Longitudinal cross-lagged models can offer information on whether the directionality between facets of materialism and aspects of psychosocial maladjustment varies, depending on which facets of materialism and which aspects of psychosocial maladjustment are involved.

Furthermore, as discussed in Chapter Two, lexical studies (Saucier, 2000; Saucier, Zhou, & Shen-Miller, 2009; See also Krauss, 2006) indicated that the materialist beliefs/values are embedded in a broader worldview construct, Unmitigated Self-Interest. As such, if facets of materialism involving beliefs and values were found to be antecedents of aspects of psychosocial maladjustment, it is important to use longitudinal data to identify whether such relations were accounted for by materialism alone (i.e., consistent with the crowding-out hypothesis), or by Unmitigated Self-Interest (i.e.,

consistent with the hidden-hand hypothesis), or both. Indeed, findings from Study 1 indicated that Unmitigated Self-Interest had independent contribution to the prediction of aspects of psychosocial maladjustment. Study 2 demonstrated that Unmitigated Self-Interest may positively predict aspects of psychosocial maladjustment even more strongly than materialist beliefs and values. It is important to examine further whether Unmitigated Self-Interest is indeed the antecedent of these aspects of psychosocial maladjustment.

As such, the major goal of Study 3 was to take an initial step to address the questions raised above. This study was a preliminary examination of the temporal relations among facets of materialism, Unmitigated Self-Interest, and aspects of psychosocial maladjustment, using available data from the Eugene-Springfield Community Sample. As described in Chapter Four, this community sample involved a large number of surveys administered between 1993-2008, including repeated administrations of an abbreviated version of the materialism and psychosocial maladjustment measures used in Study 2. First, I examined whether facets of materialism were the antecedent, the consequent, or both, in relations with psychosocial maladjustment. Specifically, previous research that examined materialism as the antecedent, such as the crowding-out hypothesis, tended to only focus on materialism involving beliefs/values as the antecedent. In my analyses, I included facets of materialism both on the value level and on the behavioral level. I examined whether, besides materialist beliefs/values, facets of materialism involving behavioral tendencies

may also function as the antecedent of psychosocial maladjustment, and if so, which facets were likely to account for the relations. Furthermore, based on results from Study 1, facets of materialism on the behavioral level were found to significantly correlate with facets of materialism on the value level, especially Valuing Money and Status and Believing Owning Things Makes for Happiness. If materialism involving behavioral tendencies were found to be the antecedent of psychosocial maladjustment, I examined whether such relations were directly accounted for by these facets of materialism on the behavioral level per se. And alternatively, I examined whether the relations were really due to the underlying materialist beliefs/values that may cause an individual to engage in behaviors characterized by materialism involving behavioral tendencies and to be high on psychosocial maladjustment.

Second, based on Saucier's (2000) finding that materialist beliefs/values are embedded in Unmitigated Self-Interest, I examined that, if facets of materialism involving beliefs and values were found to be the antecedent of psychosocial maladjustment, whether such relations were directly accounted for by facets of materialism involving beliefs and values, or by Unmitigated Self-Interest, or both, to examine the crowding-out hypothesis and the hidden-hand hypothesis. Furthermore, if materialism involving beliefs and values were found to be antecedent of psychosocial maladjustment as consequent, I examined which facets of materialism involving beliefs and values were most likely to account for the relation.

### Study 3: Method

#### *Participants*

A total of 603 (female = 345) participants from the Eugene-Springfield Community Sample completed surveys used in Study 3. Participants are described in Chapter Four (Study 2). Items used in Study 3 were administered at different times in the period between 1994-2008 (see more details about when each measure was administered in *Materials*).

#### *Materials*

##### *Abbreviated Forms of Materialism Measure*

*(Administered in 2003 And 2008).*

Due to the limited amount of space available on questionnaires administered in 2008, abbreviated forms of subscales of materialism (17 items) were adapted from the version of the subscales used in Study 1. These subscales included (1) Buying, (2) Possession Guarding, (3) Hoarding, (4) Valuing Money and Status, and (5) Believing Owning Things Makes for Happiness. Because none of the items in the subscale of Valuing Attractiveness and Sexiness and the subscale of Philosophical Materialism used in Study 1 were administered in the 2008 Eugene-Springfield item pool, analyses of Study 3 did not include these two subscales.

“Possession Guarding” involved five items from the “preservation” subscale in a revised version of Belk’s Materialism Scale (Belk, 1984, 1985; Ger & Belk, 1998), and Richins and Dawson’s (1992) Materialism Value Scale (MVS). This subscale included items such as “I get very upset if something is stolen from me, even if it has little

monetary value” and “I am less likely than most people to lock things up” (reverse scored).

“Hoarding” involved a one single item from the “possessiveness” subscale in Belk’s Materialism Scale (Belk, 1984, 1985): “I tend to hang onto things that I should probably throw out.” This one item showed good retest stability from 2003 to 2008 (.60), justifying its use as a singlet.

“Buying” involved four items from Richins and Dawson’s (1992) Materialism Value Scale (MVS). Items included “I enjoy spending money on things that aren’t practical,” “Buying things gives me a lot of pleasure,” and “I usually buy only the things I need” (reverse scored).

“Valuing Money and Status” involved three items from Richins and Dawson’s (1992) Materialism Value Scale (MVS). This subscale included items such as “I like to own things that impress people,” and “I don’t place much emphasis on the amount of material objects people own as a sign of success” (reverse scored).

“Believing Owning Things Makes for Happiness” included three items from Richins and Dawson’s (1992) Materialism Value Scale (MVS). This subscale included items such as “I find it bothersome that I can’t afford to buy all the things I like,” and “I know that I wouldn’t be any happier if I owned nicer things” (reverse scored).

*The Unmitigated Self-Interest* measure (administered in 2001) included the 6-item version in which two items on Materialist Values were excluded. This was the same scale used in Study 1.

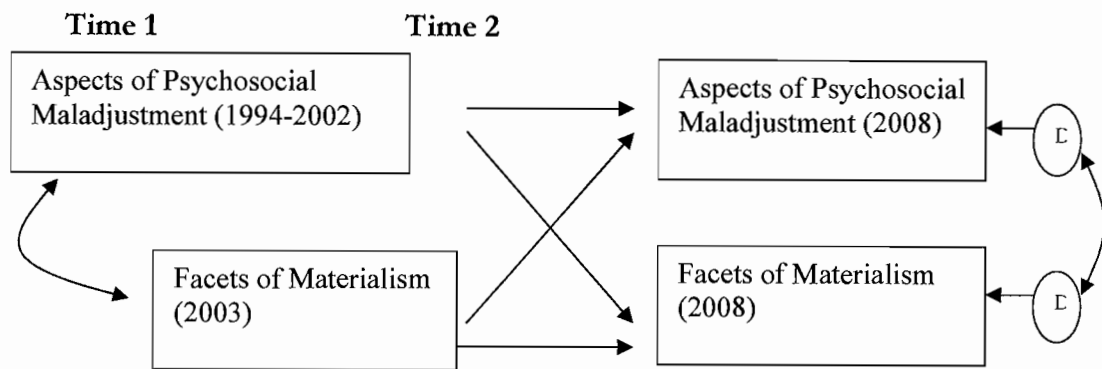
*Psychosocial maladjustment* was measured by the same four indicators used in Study 2, including Emotional Instability (administered in 1995 and 2008), Internalizing Negative Emotionality (administered in 1994 and 2008), the Externalizing Problems Indicator (administered in 2002 and 2008), and Subjective Well-Being (administered in 2001 and 2008).

### Study 3: Data Analysis

Study 3 involved the use of structural equation modeling (SEM) analysis using the structure equation modeling program Mplus version 4.0 (Muthén & Muthén, 2006). I focused specifically on the path coefficients that are relevant to my *a priori* predictions. Because the focus in those models is on the size, direction, and statistical significance of specific parameter estimates, I did not focus on global goodness-of-fit measures that are based on the fit averaged across all parameter estimates. The intention of these analyses was to identify a few specific parameter estimates for each of many models differing only in the combination of variables included in the specific model tested.

The first part of Study 3 examined the specific temporal relations between facets of materialism and aspects of psychosocial maladjustment. As presented in Figure 4, multiple cross-lagged longitudinal models were fitted, in which the relations between each facet of materialism (i.e., Possession Guarding, Hoarding, Buying, Believing Owning Things Makes for Happiness, and Valuing Money and Status) and each psychosocial maladjustment outcome (i.e., the Externalizing Problems Indicator, Negative Emotionality, Internalizing Negative Emotionality, & Subjective Well-Being)





*Figure 4*

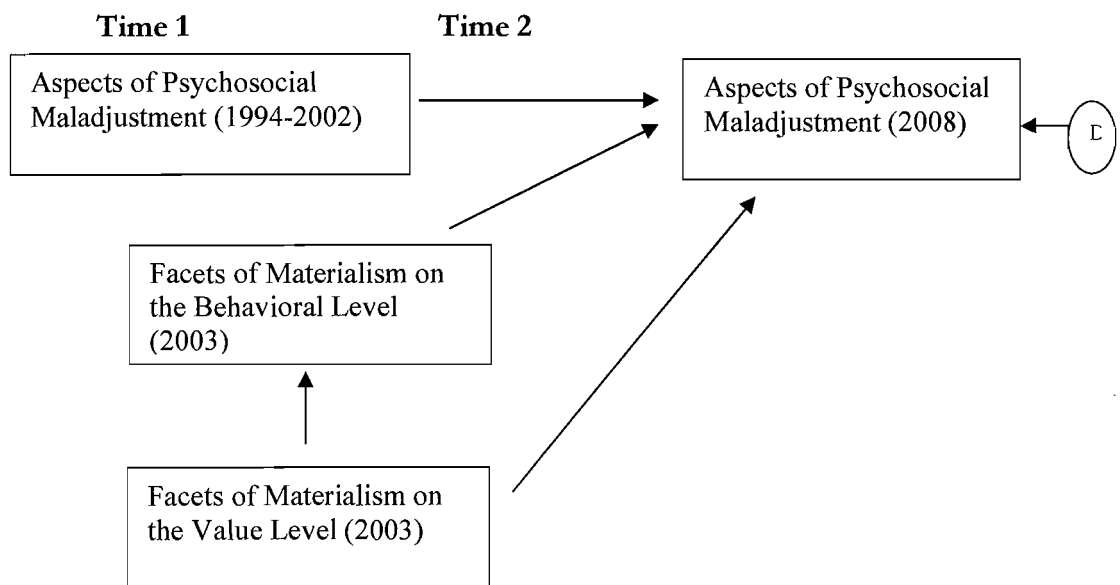
Cross-Lagged Paths Estimated in Models Examining Relations between Each Facet of Materialism and Each Aspect of Psychosocial Maladjustment

were analyzed separately. The principal intent of the hypothesized models was to examine, with the auto-regressive component of the variables statistically controlled for, the extent to which each facet of materialism at Time 1 would predict each aspect of psychosocial maladjustment at Time 2, and, conversely the extent to which each aspect of psychosocial maladjustment at Time 1 would predict each facet of materialism at Time 2. Parameters corresponding to the cross-temporal interrelations among facets of materialism and aspects of psychosocial maladjustment, as well as parameters corresponding to stability, were freely estimated.

As will be discussed the next section, results from the cross-lagged longitudinal models indicated that Buying and Possession-Guarding at Time 1 were found among behavioral-level facets of materialism to significantly that predicted aspects of psychosocial

maladjustment at Time 2. As such, I further examined the unique contribution of Buying and Possession-Guarding respectively at Time 1 to the prediction of each aspect of psychosocial maladjustment at Time 2 beyond each facet of materialism on the value level at Time 1, when statistically controlling for the variance contributed by the same aspect of psychosocial maladjustment at Time 1.

As presented in Figure 5, multiple SEM structural models were fitted, in which the relations among each facet of materialism on the behavioral level at Time 1 (i.e., Buying

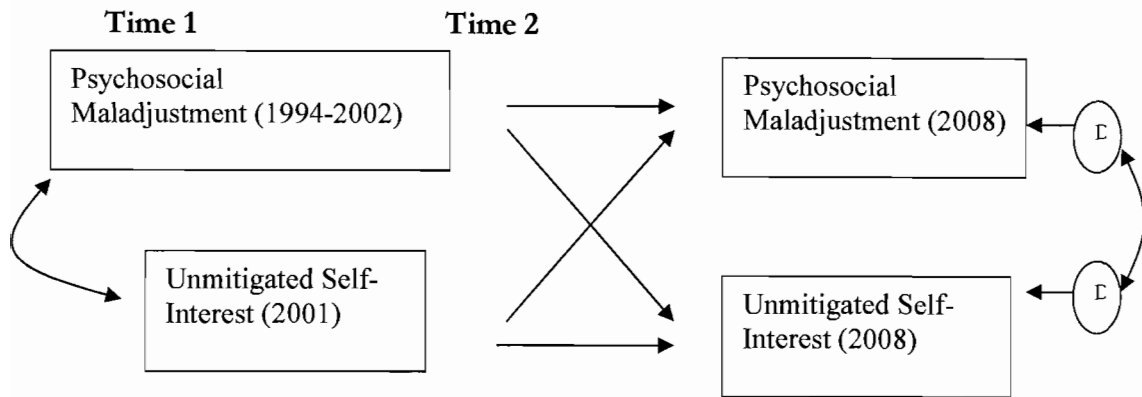


*Figure 5*

Structural Models Examining Relations among Facets of Materialism on the Value Level at Time 1, Facets of Materialism on the Behavioral Level at Time 1, and Aspects of Psychosocial Maladjustment at Time 1 and Time 2.

and Possession-Guarding), each facet of materialism on the value level at Time 1 (i.e., Valuing Money and Status, and Believing Owning Things Makes for Happiness), and each aspect of psychosocial maladjustment at Time 1 and Time 2 (i.e., the Externalizing Problems Indicator, Negative Emotionality, Internalizing Negative Emotionality, and Subjective Well-Being), were analyzed separately. Specifically, in each model, one aspect of psychosocial maladjustment at Time 2 was set as a dependent variable, predicted by (a) the same psychosocial maladjustment at Time 1, (b) one facet of materialism on the behavioral level, and (c) one facet of materialism on the value level. Further, in each model, a path that points from the facet of materialism on the value level to the facet of materialism on the behavioral level in the analysis was specified. This path was specified based on the intention to examine whether the significant relations between facets of materialism on the behavioral level at Time 1 and psychosocial maladjustment were really due to the underlying materialist belief/values that may have led to materialism on the behavioral level and psychosocial maladjustment. Parameters corresponding to interrelations between facets of materialism on the value level at Time 1 and aspects of psychosocial maladjustment at Time 1, and between facets of materialism on the behavioral level at Time 1 and aspects of psychosocial maladjustment at Time 2 were freely estimated.

The second part of Study 3 examined the role of Unmitigated Self-Interest in the relations between facets of materialism on the value level and psychosocial maladjustment. As presented in Figure 6, I first examined whether Unmitigated Self-Interest is an



*Figure 6*

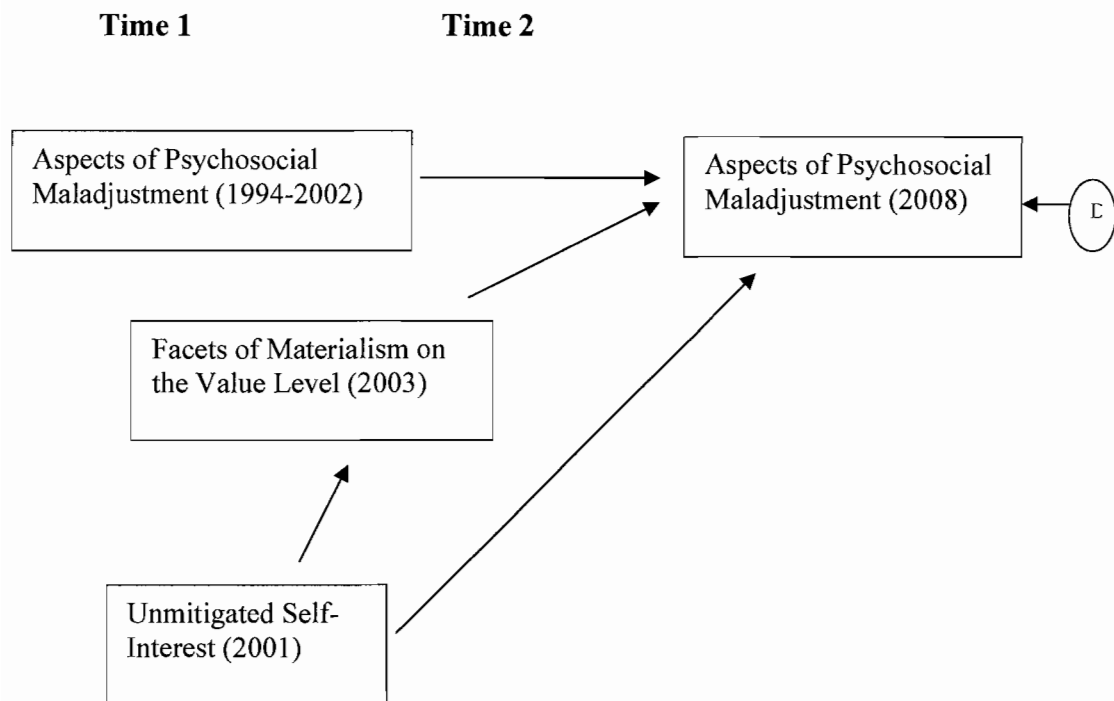
Cross-Lagged Paths Estimated in Models Examining Relations between Unmitigated Self-Interest and Each Aspect of Psychosocial Maladjustment

antecedent of aspects of psychosocial maladjustment by using cross-lagged models.

Parameters corresponding to the cross-temporal interrelations among Unmitigated Self-Interest and aspects of psychosocial maladjustment, as well as parameters corresponding to stability, were freely estimated.

Further, I examined the relative contributions between Unmitigated Self-Interest and each facet of materialism on the value level (i.e., Believing Owning Things Makes for Happiness and Valuing Money and Status) at Time 1 to the prediction of each aspect of psychosocial maladjustment at Time 2 (i.e., the Externalizing Problems Indicator, Negative Emotionality, Internalizing Negative Emotionality, and Subjective Well-Being), when

statistically controlling for the variance contributed by the same aspect of psychosocial maladjustment at Time 1. As presented in Figure 7, multiple SEM structural models were fitted, in which the relations among Unmitigated Self-Interest, each aspect of psychosocial maladjustment at Time 1 and Time 2, and each facet of materialism on the value level at Time 1 were analyzed separately. Specifically, in each model, one aspect of psychosocial maladjustment at Time 2 was set as a dependent variable, predicted by (a) the same



*Figure 7*

Structural Models Examining Relations among Unmitigated Self-Interest, Aspects of Psychosocial Maladjustment at Time 1 and Time 2, and Facets of Materialism on the Value Level

As described in Chapter Two, the crowding-out hypothesis and the hidden-hand hypothesis hold different views on what accounts for the relation between *materialism on the value level* and psychosocial maladjustment. The crowding-out hypothesis suggests that the relation is directly accounted for by materialism on the value level per se, and would predict that facets of materialism on the value level would independently predict psychosocial maladjustment. The hidden-hand hypothesis, on the other hand, suggests that for materialism on the value level, such a relation is not simply confined to materialism on the value level, but involves Unmitigated Self-Interest, a broader construct in which materialism on the value level is embedded. This hypothesis would predict that Unmitigated Self-Interest would independently predict psychosocial maladjustment. In addition, since Unmitigated Self-Interest is a broader construct in which facets of materialism on the value level are embedded, it is expected that facets of materialism on the value level and Unmitigated Self-Interest would be significantly correlated.

### Study 3: Results

#### *Reliability*

Coefficient alpha was calculated separately for each materialism subscale (Table 15): Possession Guarding produced alpha coefficients of .55 at Time 1, and .57 at Time 2. Buying produced alpha coefficients of .70 at Time 1 and .69 at Time 2. Believing Owning Things Makes for Happiness produced alpha coefficients of .60 at Time 1 and .66 at Time two. Valuing Money and Status produced alpha coefficients of .66 at Time one and .67 at Time 2. The test-retest reliability for the Hoarding item was .60.

Emotional Instability produced alpha coefficients of .77 at Time 1 and .77 at Time 2. Internalizing Negative Emotionality produced alpha coefficients of .66 at Time 1 and .64 at Time 2. Externalizing Problem Indicator produced alpha coefficients of .55 at Time 1 and .50 at Time 2. Subjective Well-Being produced alpha coefficients of .88 at Time 1 and .89 at Time 2. The 6-item Unmitigated Self-Interest scale (excluding Materialist Values) produced an alpha coefficient of .65.

#### *Threshold for Statistical Significance*

Because many outcome variables were included in these analyses, increasing the risk of Type I error, a relatively stringent threshold for statistical significance was used ( $p < .001$ ). Except as noted, all beta weights described as significant satisfy this stringent criterion. However, tables also provide information on which coefficients were significant at less stringent levels ( $p < .05$ ,  $p < .01$ )

#### *Test-Retest Stability*

Table 15 presents correlations among all measured variables. In terms of the materialism measure, the test-retest stability coefficient are as follows: For Possession Guarding .61, for Hoarding .60, for Buying .69, for Believing Owning Things Makes for Happiness .57, and for Valuing Money and Status .63. In terms of psychosocial maladjustment measures, the test-retest stability coefficient was as follows: For Emotional Instability .56, for Internalizing Negative Emotionality .60, for the Externalizing Problems Indicator .63, and for Subjective Well-Being .65. The test-rest stability for Unmitigated Self-Interest was .65.

Table 15

*Study 3: Correlation Matrix of Measured Variables*

	2	3	4	5	6	7	8	9	10
1. Poss. Guarding (T1)	-								
2. Poss. Guarding (T2)	.61***	-							
3. Hoarding (T1)	.15***	.14***	-						
4. Hoarding (T2)	.15***	.16***	.60***	-					
5. Buying (T1)	.10**	.12**	.08*	.08*	-				
6. Buying (T2)	.11**	.17***	.09*	.09*	.69***	-			
7. BOTMH(T1)	.14***	.17***	.00	.05	.22***	.27***	-		
8. BOTMH(T2)	.21***	.17***	.06	.11**	.20***	.28***	.57***	-	
9. VMS (T1)	.19***	.22***	.03	.07	.32***	.28***	.37***	.29***	-
10. VMS (T2)	.24***	.26***	.04	.09*	.34***	.41***	.37***	.41***	.63***
11. EI (T1)	.21***	.16***	.06	.11*	.11**	.11*	.24***	.22***	.17***
12. EI (T2)	.18***	.22***	.06	.14***	.22***	.24***	.25***	.32***	.19***
13. INE (T1)	.20***	.19***	.13**	.11**	.09*	.09	.19***	.21***	.17***
14. INE (T2)	.24***	.26***	.09*	.22***	.06	.13**	.22***	.29***	.14***
15. EPI(T1)	.05	.13**	.00	.01	.15***	.16***	.24***	.23***	.19***
16. EPI (T2)	.13**	.15***	.07	.07	.12**	.17***	.27***	.27***	.25***
17. SWB (T1)	-.12**	-.09*	-.06	-.09*	-.04	-.04	-.32***	-.32***	-.08*
18. SWB (T2)	-.07	-.09*	-.02	-.07	-.05	-.08*	-.31***	-.42***	-.06
19. USI MX (T1)	.17***	.17***	.07	.13**	.05	.10*	.20***	.18***	.23***
20. USI MX (T2)	.12**	.11**	.07	.13**	.09*	.14***	.23***	.12***	.21***



Table 15 (continued)

	11	12	13	14	15	16	17	18	19	20
1. Poss. Guarding (T1)										
2. Poss. Guarding (T2)										
3. Hoarding (T1)										
4. Hoarding (T2)										
5. Buying (T1)										
6. Buying (T2)										
7. BOTMH(T1)										
8. BOTMH(T2)										
9. VMS (T1)										
10. VMS (T2)	-									
11. EI (T1)	.14**	-								
12. EI (T2)	.29**	.56***	-							
13. INE (T1)	.09*	.54***	.44***	-						
14. INE (T2)	.17***	.46***	.57***	.60***	-					
15. EPI(T1)	.22***	.23***	.32***	.15***	.28***	-				
16. EPI (T2)	.24***	.27***	.35***	.25***	.36***	.63***	-			
17. SWB (T1)	-.08*	-.30***	-.27***	-.33***	-.39***	-.15***	-.19***	-		
18. SWB (T2)	-.09*	-.21***	-.27***	-.24***	-.39***	-.18***	-.20***	.65***	-	
19. USI MX	.27***	.07	.21***	.07	.19***	.16***	.24***	-.07	-.09*	-
20. USI MX (T2)	.31**	.07**	.07	.15***	.11**	.15***	.12**	-.07	-.08*	.64***

Note. BOTMH= Believing Owning Things Makes for Happiness, VMS= Valuing Money and Status, EI= Emotional Instability, INE= Internalizing Negative Emotionality, EPI= Externalizing Problem Indicator, SWB= Subjective Well-Being, USI MX= Unmitigated Self-Interest Excluding Materialism.\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .00$ .

*Cross-Lagged Models: Time 1 Psychosocial Maladjustment to  
Time 2 Facets of Materialism*

*Psychosocial maladjustment indicators and materialism on the behavioral level.* As presented in Table 16, only one psychosocial maladjustment indicator (i.e., Externalizing Problems Indicator) at Time 1 significantly predicted one facet of materialism on the value level (i.e., Possession-Guarding) at Time 2 ( $\beta = .12$ ).

*Psychosocial maladjustment indicators and materialism on the value level.* As presented in Table 17, all four psychosocial maladjustment indicators at Time 1 (i.e., Emotional Instability, Internalizing Negative Emotionality, and Externalizing Problem Indicator) significantly predicted one facet of materialism on the value level at Time 2, which was Believing Owning Things Makes for Happiness (i.e., Subjective Well-Being,  $\beta = -.17$ , Emotional Instability,  $\beta = .12$ , Internalizing Negative Emotionality,  $\beta = .11$ , and the Externalizing Problems Indicator,  $\beta = .11$ ). However, none of the psychosocial maladjustment indicators at Time 1 predicted Valuing Money and Status.

*Cross-Lagged Models: Time 1 Facets of Materialism to  
Time 2 Psychosocial Maladjustment.*

*Facets of materialism on the behavioral level and psychosocial maladjustment indicators.* As presented in Table 16, three psychosocial maladjustment indicators (Emotional Instability, Internalizing Negative Emotionality, and Externalizing Problem Indicator) at Time 2 were positively and significantly predicted by facets of materialism on the behavioral level at Time 1. Specifically, Possession-Guarding at Time 1 positively and

significantly predicted two psychosocial maladjustment indicators at Time 2 (Internalizing Negative Emotionality,  $\beta = .13$ , and the Externalizing Problems Indicator at Time,  $\beta = .11$ ). Buying at Time 1 predicted one indicator at Time 2 (Emotional Instability,  $\beta = .19$ ). Hoarding at Time 1 did not predict any of the psychosocial maladjustment indicators at Time 2.

*Facets of materialism on the value level and psychosocial maladjustment indicators.* As presented in Table 17, all four psychosocial maladjustment indicators at Time 2 were significantly predicted by facets of materialism on the value level at Time 1. Specifically, Believing Owning Things Makes for Happiness predicted all four indicators (Emotional Instability,  $\beta = .14$ , Subjective Well-Being,  $\beta = -.14$ , the Externalizing Problems Indicator,  $\beta = .13$ , and Internalizing Negative Emotionality,  $\beta = .12$ ). Valuing Money and Status predicted two (Externalizing Problems Indicator,  $\beta = .13$ , and Emotional Instability,  $\beta = .12$ ).

Table 16

*Study 3: Standardized Path Coefficients in Cross-Lagged Models Examining Possession Guarding, Hoarding and Buying's Relations with Psychosocial Maladjustment Indicators*

Facets of Materialism	Aspects of Psychosocial Maladjustment	MAT Stability	MAL Stability	MAT → MAL	MAL → MAT	MAT ↔ MAL (Time 1)	MAT ↔ MAL (Time 2)
PG	Emotional Instability (1995, 2008)	.61***	.55***	.07	.03	.21***	.10***
	Internalizing Negative Emotionality (1994, 2008)	.60***	.57***	.13***	.07*	.19***	.08**
	Externalizing Problem Indicator (2001, 2008)	.62***	.65***	.11***	.12***	.04	.00
	Subjective Well-being (2001, 2008)	.62***	.66***	.00	-.02	-.10**	-.03
Hoarding	Emotional Instability (1995, 2008)	.59***	.56***	.03	.08*	.07	.06*
	Internalizing Negative Emotionality (1994, 2008)	.59***	.60***	.05	.03	.12**	.14***
	Externalizing Problem Indicator (2001, 2008)	.60***	.65***	.05	.00	.00	.03

Table 16 (continued)

Facets of Materialism	Aspects of Psychosocial Maladjustment	MAT Stability	MAL Stability	MAT → MAL	MAL → MAT	MAT ↔ MAL (Time 1)	MAT ↔ MAL (Time 2)
	Subjective Well-being (2001, 2008)	.59***	.66***	.01	-.06	-.06	-.03
Buying	Emotional Instability (1995, 2008)	.67***	.55***	.19***	.07*	.01	.04
	Internalizing Negative Emotionality (1994, 2008)	.70***	.60***	.01	.02	.10**	.07**
	Externalizing Problem Indicator (2001, 2008)	.69***	.65***	.05	.08**	.15***	.04
	Subjective Well-being (2001, 2008)	.70***	.66***	-.03	-.04	-.04	-.03

*Note.* Results are based on Eugene-Springfield Community Sample ( $N = 603$ ). PG = Possession Guarding. MAT = Facets of Materialism. MAL = Aspects of Psychosocial Maladjustment.  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 17

*Study 3: Standardized Path Coefficients in Cross-Lagged Models Examining Believing  
Owning Things Makes for Happiness and Valuing Money and Status's Relations  
with Psychosocial Maladjustment Indicators*

Facets of Materialism	Aspects of Psychosocial Maladjustment	MAT Stability	MAL Stability	MAT → MAL	MAL → MAT	MAT ↔ MAL (Time 1)	MAT ↔ MAL (Time 2)
BOTMH	Emotional Instability (1995, 2008)	.55***	.54***	.14***	.12***	.24***	.11***
	Internalizing Negative Emotionality (1994, 2008)	.56***	.58***	.12***	.11***	.19***	.11***
	Externalizing Problem Indicator (2001, 2008)	.55***	.62***	.13***	.11***	.24***	.05*
	Subjective Well-being (2001, 2008)	.52***	.62***	-.14***	-.17***	-.32***	-.14***
VMS	Emotional Instability (1995, 2008)	.63***	.55***	.12***	.05	.17***	.13***
	Internalizing Negative Emotionality (1994, 2008)	.63***	.60***	.07*	.01	.16***	.07**
	Externalizing Problem Indicator (2001, 2008)	.62***	.62***	.13***	.10**	.20***	.03
	Subjective Well-being (2001, 2008)	.63***	.66***	-.02	-.06	-.09**	-.02

*Note.* Results are based on Eugene-Springfield Community Sample ( $N = 603$ ). VMS= Valuing Money and Status. MAT = Facets of Materialism. MAL = Aspects of Psychosocial Maladjustment. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

*Structural Models: Facets of Materialism on the Behavioral Level,  
Facets of Materialism on the Value Level, and Aspects  
of Psychosocial Maladjustment*

*Unique Contributions of Facets of Materialism on the Behavioral  
Level beyond Facets of Materialism on the Value Level.*

As presented in Table 18, when accounting for Valuing Money and Status at Time 1 in addition to stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Buying at Time 1 remained a significant predictor for Emotional Instability at Time 2 ( $\beta = .17$ ). Similarly, when accounting for Believing Owning Things Makes for Happiness at Time 1 in addition to stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Buying at Time 1 remained a significant predictor for Emotional Instability at Time 2 ( $\beta = .16$ ).

As presented in Table 19, when accounting for Valuing Money and Status at Time 1 in addition to stability of aspects of psychosocial maladjustment between Times 1 and 2, Possession-Guarding at Time 1 remained a significant predictor for Internalizing Negative Emotionality at Time 2 ( $\beta = .12$ ) and was a marginal predictor for the Externalizing Problems indicator at Time 2 ( $\beta = .08$ ). Similarly, when accounting for Believing Owning Things Makes for Happiness at Time 1 in addition to stability of aspects of psychosocial maladjustment between Times 1 and 2, Possession-Guarding at Time 1 remained a significant predictor for Internalizing Negative Emotionality at Time 2 ( $\beta = .12$ ) and was a marginal predictor for the Externalizing Problems indicator at Time 2 ( $\beta = .09$ ).

Table 18

*Study 3: Contributions of Buying to Psychosocial Maladjustment when Controlling for Facets of Materialism on the Value Level.*

Facets of Materialism on the Value Level	Aspects of Psychosocial Maladjustment	MAL Stability	Buying → MAL2	MVS → MAL2	MVS → Buying	Buying ↔ MAL1	MVS ↔ MAL1
VMS	Emotional Instability (1995, 2008)	.54***	.17***	.06	.32***	-.06	-.17***
	Internalizing Negative Emotionality (1994, 2008)	.59***	-.02	.08*	.32***	.06	.16***
	Externalizing Problems Indicator (2001, 2008)	.63***	.00	.13***	.32***	.09*	.20***
	Subjective Well-being (2001, 2008)	.66***	-.03	-.02	.32***	-.02	-.09**
BOTMH	Emotional Instability (1995, 2008)	.53***	.16***	.11***	.22***	.07	.24***
	Internalizing Negative Emotionality (1994, 2008)	.58***	-.02	.13***	.22***	.06	.19***
	Externalizing Problems Indicator (2001, 2008)	.62***	.02	.13***	.22***	.10**	.24***
	Subjective Well-being (2001, 2008)	.66	-.01	-.14***	.22***	.03	-.31***

*Note.* Results are based on Eugene-Springfield Community Sample (N= 603). VMS= Valuing Money and Status, BOTMH= Believing Owning Things Makes for Happiness, MAL= Aspects of Psychosocial Maladjustment. \* p<.05 \*\*p<.01 \*\*\*p<.001



Table 19

*Study 3: Contributions of Possession-Guarding to Psychosocial Maladjustment when Controlling for Facets of Materialism on the Value Level.*

Facets of Materialism on the Value Level	Aspects of Psychosocial Maladjustment	MAL Stability	PG → MAL2	MVS → MAL2	MVS → PG	PG ↔ MAL	MVS ↔ MAL
VMS	Emotional Instability (1995, 2008)	.54***	.05	.11**	.19***	.18***	.17***
	Internalizing Negative Emotionality (1994, 2008)	.57***	.12***	.05	.19***	.16***	.16***
	Externalizing Problems Indicator (2001, 2008)	.62***	.08**	.12***	.19***	.00	.20***
	Subjective Well-being (2001, 2008)	.66***	.00	-.03	.19***	-.08*	-.09**
BOTMH	Emotional Instability (1995, 2008)	.53***	.05	.14***	.14***	.18***	.25***
	Internalizing Negative Emotionality (1994, 2008)	.56***	.12***	.11***	.14***	.17***	.19***
	Externalizing Problems Indicator (2001, 2008)	.62***	.09**	.12***	.14***	.00	.24***
	Subjective Well-being (2001, 2008)	.62***	.01	-.14***	.14***	-.06	-.31***

*Note.* Results are based on Eugene-Springfield Community Sample ( $N = 603$ ). VMS= Valuing Money and Status, BOTMH= Believing Owning Things Makes for Happiness, PG= Possession-Guarding, MAL= Aspects of Psychosocial Maladjustment. \*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

Valuing Money and Status at Time 1 remained a positive and significant predictor for the Externalizing Problems Indicator at Time 2 ( $\beta = .13$ ). As presented in Table 19, when accounting for Possession-Guarding in addition to stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Valuing Money and Status at Time 1 remained a significant predictor for the Externalizing Problems Indicator at Time 2 ( $\beta = .12$ ) and was a marginal predictor for Emotional Instability at Time 2 ( $\beta = .11$ ).

As presented in Table 18, when accounting for Buying at Time 1 in addition to stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Believing Owning Things Makes for Happiness remained a significant predictor for all four psychosocial maladjustment (Subjective Well-Being,  $\beta = -.14$ , Internalizing Negative Emotionality,  $\beta = .13$ , the Externalizing Problems Indicator,  $\beta = .13$ , and Emotional Instability,  $\beta = .11$ ). Similarly, as presented in Table 19, when accounting for Possession-Guarding at time 1 in addition to stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Believing Owning Things Makes for Happiness remained a significant predictor for all four psychosocial maladjustment (Emotional Instability,  $\beta = .14$ , Subjective Well-Being,  $\beta = -.14$ , the Externalizing Problems Indicator,  $\beta = .12$ , and Internalizing Negative Emotionality,  $\beta = .11$ ).

*Cross-Lagged Models: Unmitigated Self-Interest*

*and Psychosocial Maladjustment*

*Time 1 unmitigated self-interest to Time 2 psychosocial maladjustment.* As presented in Table 16, Unmitigated Self-Interest at Time 1 positively and significantly predicted three psychosocial maladjustment indicators at Time 2 (i.e., Emotional

Instability,  $\beta = .15$ , Internalizing Negative Emotionality,  $\beta = .13$ , and Externalizing Problems Indicator,  $\beta = .13$ ).

*Time 1 psychosocial maladjustment and Time 2 unmitigated self-interest.* As presented in Table 20, Unmitigated Self-Interest at Time 2 was not predicted by any of the aspects of psychosocial maladjustment examined at Time 1.

Table 20  
*Study 3: Standardized Path Coefficients in Cross-Lagged Models  
 Examining Relations between Unmitigated Self-Interest and  
 Psychosocial Maladjustment Indicators*

	USI Stability	MAL stability	USI → MAL	MAL → USI	USI ↔ MAL (2003)	USI ↔ MAL (2008)
EI (1995, 2008)	.63***	.55***	.15***	.01	.08*	.02
INE (1994, 2008)	.63***	.59***	.13***	.06	.07	.00
EPI (2002, 2008)	.63***	.63***	.13***	.01	.17***	.00
SWB (2001, 2008)	.63***	.66***	-.04	-.03	-.08*	.00

*Note.* Results are based on Eugene-Springfield Community Sample ( $N = 603$ ).  
 USI = Unmitigated Self-Interest, MAL = Aspects of Psychosocial Maladjustment,  
 EI = Emotional Instability, INE = Internalizing Negative Emotionality, EPI =  
 Externalizing Problem Indicator, SWB = Subjective Well-Being.  
 \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

*Structural Models: Facets of Materialism, USI,  
and Psychosocial Maladjustment*

*Unique contribution of facets of materialism.* As presented in Table 21, when controlling for Unmitigated Self-Interest and stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Believing Owning Things Makes for Happiness positively and significantly predicted all three psychosocial maladjustment indicators (i.e., Emotional Instability,  $\beta = .12$ , Internalizing Negative Emotionality,  $\beta = .10$ , and the Externalizing Problem Indicators,  $\beta = .11$ ), and negatively and significantly predicted Subjective Well-Being ( $\beta = .15$ ). Valuing Money and Status positively and significantly predicted one indicator (i.e., the Externalizing Problems Indicator ( $\beta = .10$ )).

*Unique Contribution of Unmitigated Self-Interest*

As presented in Table 21, when controlling for Believing Owning Things Makes for Happiness and stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Unmitigated Self-Interest positively and significantly predicted all three psychosocial maladjustment indicators (i.e., Emotional Instability,  $\beta = .13$ , Internalizing Negative Emotionality,  $\beta = .12$ , and the Externalizing Problems Indicator  $\beta = .12$ ). When controlling for Valuing Money and Status and stability of aspects of psychosocial maladjustment between Time 1 and Time 2, Unmitigated Self-Interest positively and also significantly predicted all three indicators (i.e., Emotional Instability,  $\beta = .13$ , Internalizing Negative Emotionality,  $\beta = .13$ , and the Externalizing Problems Indicator,  $\beta = .11$ ).

*Facets of Materialism on the Value Level and  
Unmitigated Self-Interest*

As presented in Table 21, Unmitigated Self-Interest positively and significantly predicted Believing Owning Things Makes for Happiness ( $\beta = .20$ ), and Valuing Money and Status ( $\beta = .23$ ).

Study 3: Initial Interpretation of Results

The first part of Study 3 examined the temporal relations between materialism and psychosocial maladjustment. Materialism on the value level was found to be both the antecedent and the consequent of psychosocial maladjustment. However, the direction appeared to be slightly stronger for materialism on the value level being the antecedent rather the consequent. Of the two facets of materialism on the value level, only Believing Owning Things Makes for Happiness was found to be the consequent, predicted by all four psychosocial maladjustment indicators.

In the opposite temporal direction, materialism on the value level as the antecedent altogether predicted all four psychosocial maladjustment indicators, and both Believing Owning Things Makes for Happiness and Valuing Money and Status were likely to account for the relations. Whereas Believing Owning Things Makes for Happiness as the antecedent predicted all four psychosocial maladjustment indicators, Valuing Money and Status predicted two (i.e., Emotional Instability and the Externalizing Problems Indicator).

Table 21

*Study 3: Structural Models among Facets of Materialism on the Value Level,  
Unmitigated Self-Interest, and Psychosocial Maladjustment Indicators*

Facets of Materialism on the Value Level	Aspects of Psychosocial Maladjustment	MAL Stability	MAT → MAL2	USI → MAL2	USI → MAT	MAT1 ↔ MAL1	USI1 ↔ MAL1
BOTMH	Emotional Instability (1995, 2008)	.53***	.12***	.13***	.20***	.23***	.08*
	Internalizing Negative Emotionality (1994, 2008)	.58***	.10***	.12***	.20***	.18***	.07
	Externalizing Problem Indicator (2001, 2008)	.60***	.11***	.12***	.20***	.21***	.16***
	Subjective Well-being (2001, 2008)	.62***	-.14***	-.01	.20***	.30***	-.08
VMS	Emotional Instability (1995, 2008)	.54***	.08**	.13***	.23***	.15***	.08*
	Internalizing Negative Emotionality (1994, 2008)	.58***	.03	.13***	.23***	.14***	.07
	Externalizing Problem Indicator (2001, 2008)	.61***	.10***	.11***	.23***	.16***	.16***
	Subjective Well-being (2001, 2008)	.65***	-.02	-.03	.23***	-.07	-.07

*Note.* Results are based on Eugene-Springfield Community Sample (N= 603). BOTMH= Believing Owning Things Makes for Happiness, VMS= Valuing Money and Status, USI = Unmitigated Self-Interest. MAT= Facets of Materialism. MAL= Aspects of Psychosocial Maladjustment. \*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

Materialism on the behavioral level was both the antecedent and the consequent of psychosocial maladjustment. However, similar to the value level, the direction appeared to be stronger as the *antecedent* than as the consequent for materialism on the behavioral level. Among the three facets of materialism on the behavioral level, only one facet was found to be the consequent (i.e., Possession- Guarding), predicted by only one psychosocial maladjustment indicator (i.e., the Externalizing Problem Indicator). Conversely, materialism on the behavioral level as the antecedent predicted three psychosocial maladjustment indicators (i.e., Internalizing Negative Emotionality, the Externalizing Problems Indicator, and Emotional Instability). Such relations were likely to be accounted for by Possession-Guarding and Buying.

Furthermore, the relations between Possession-Guarding as the antecedent and aspects of psychosocial maladjustment as the consequent as well as the relations between Buying as the antecedent and aspects of psychosocial maladjustment as the consequent remained significant when controlling for variance explained by facets of materialism on the value level. As such, the possibility that the relations were really due to the underlying materialist beliefs/values was excluded; Buying and Possession-Guarding each as the antecedent did make unique contributions to the prediction of psychosocial maladjustment. Indeed, previous research that examined materialism as the antecedent of psychosocial maladjustment such as the crowding-out hypothesis has specifically focused on examining materialism involving beliefs and values. This finding indicates that such relations are not only confined to materialism involving beliefs and values. Facets of

materialism involving behavioral tendencies, such as Buying and Possession-Guarding, appeared to also serve as the antecedent of psychosocial maladjustment.

The second part of Study 3 further examined the relations between Unmitigated Self-Interest and psychosocial maladjustment. If, as findings suggested above, materialism on the value level was the antecedent of psychosocial maladjustment indicators, it is important to find out whether such relations were directly accounted for by facets of materialism on the value level per se (i.e., as suggested by the crowding-out hypothesis; Kasser, 2002), or by Unmitigated Self-Interest (i.e., as suggested by the hidden-hand hypothesis; Lane, 2000), or both. Specifically, when controlling for the shared variance with Unmitigated Self-Interest, Believing Owning Things Makes for Happiness remained the antecedent of four psychosocial maladjustment indicators. Further, beyond variance explained by Believing Owning Things Makes for Happiness as the antecedent, Unmitigated Self-Interest as the antecedent uniquely predicted three psychosocial maladjustment indicators (all except for Subjective Well-Being). This suggests that whereas the relation between Believing Owning Things Makes for Happiness and Subjective Well-Being was accounted for by Believing Owning Things Makes for Happiness (i.e., supporting the crowding-out hypothesis only), the relations between Believing Owning Things Makes for Happiness and the other three indicators were accounted for by both Believing Things Makes for Happiness and Unmitigated Self-Interest (i.e., supporting both the crowding-out hypothesis and the hidden-hand hypothesis).



Although Valuing Money and Status remained the antecedent of the Externalizing Problems Indicator, it was no longer the antecedent of Emotional Instability when controlling for variance explained by Unmitigated Self-Interest. Further, beyond variance explained by Valuing Money and Status as the antecedent, Unmitigated Self-Interest as the antecedent uniquely predicted three psychosocial maladjustment indicators (all except for Subjective Well-Being). This suggests that whereas the relation between Valuing Money and Status and the Externalizing Problem Indicator was accounted for by both Valuing Money and Status and Unmitigated Self-Interest (i.e., supporting both the crowding-out hypothesis and the hidden-hand hypothesis), the relation between Valuing Money and Status and Emotional Instability was accounted for by Unmitigated Self-Interest only (i.e., supporting the hidden-hand hypothesis).

The intent behind Study 3 was to take a preliminary step to understanding the complex temporal relations between facets of materialism and psychosocial maladjustment, and the role of Unmitigated Self-Interest in such relations. Note that in cross-lagged analyses, typically two measures from the same time period are administered concurrently. However, in Study 3, due to the limitations of this particular data set, measures for all the psychosocial maladjustment indicators at Time 1 were administered earlier than measures for all the materialism and Unmitigated Self-Interest measures at Time 1. Thus the following questions remain unclear: (a) Whether psychosocial maladjustment at Time 1 actually had an influence on materialism at Time 1, and (b) whether the time lapse between psychosocial maladjustment at Time 1 and

materialism at Time 1 led to an underestimation of the correlation between two measures. Both (a) and (b) were likely to result in some degree of inaccuracy in the parameter estimates reported in this paper. As such, caution must be taken; findings in Study 3 were suggestive, but they need to be replicated with a more perfect research design before drawing a confident conclusion on the temporal relation between materialism and between psychosocial maladjustment and between Unmitigated Self-Interest and psychosocial maladjustment.

## CHAPTER VI

### GENERAL DISCUSSION

This research has a foundation on previous findings that materialism is positively related to psychosocial maladjustment. The primary goal of this dissertation research is to address the question of “what accounts for the relation between materialism and psychosocial maladjustment?” The research had two propositions grounded in previous research.

The first proposition is that materialism is a multi-faceted construct that includes Possession-Guarding, Hoarding, Buying, Believing Owning Things Makes for Happiness, Valuing Money and Status, Valuing Attractiveness and Sexiness, and Philosophical Materialism as its seven distinct facets. Whereas the first three facets involve behavioral tendencies, the remaining four involve beliefs and values (Shen-Miller & Saucier, 2009).

The second proposition is that facets of materialism involving beliefs and values are embedded in Unmitigated Self-Interest, which is a multi-faceted worldview construct consisting of a number of beliefs/values (i.e., Machiavellianism, hedonism). This construct includes a number of worldviews including and in addition to materialist beliefs/values (Saucier, 2000).

Starting from these assumptions, this research centers on the following questions: Are materialism’s relations with aspects of psychosocial maladjustment accounted for by

materialism alone, or are they really due to Unmitigated Self-Interest? Which facets of materialism are more likely to account for the relation with psychosocial maladjustment? If Unmitigated Self-Interest does directly contribute to materialism's relations with psychosocial maladjustment, are other facets of Unmitigated Self-Interest beyond materialist beliefs and values also associated with psychosocial maladjustment? (See Figure 1, p. 10). A second objective was to examine the temporal relations among Unmitigated Self-Interest, materialism and psychosocial maladjustment, and whether either materialism or Unmitigated Self-Interest (or both) are indeed the antecedents of psychosocial maladjustment.

#### *Concurrent Relations between Materialism and Psychosocial Maladjustment*

In Study 1, I explored whether facets of materialism are likely to be associated with different aspects of psychosocial maladjustment. The results indicated that this seemed to be the case; each facet of materialism demonstrated a distinct pattern of correlation with aspects of psychosocial maladjustment, suggesting that it is useful to treat each facet of materialism as a separate construct. Study 1 also examined whether observed relations between facets of materialism and aspects of psychosocial maladjustment were directly accounted for by Unmitigated Self-Interest. The results suggest that facets of materialism do uniquely contribute directly to materialism's relations with psychosocial maladjustment beyond the variance explained by Unmitigated Self-Interest. Specifically, whereas materialism involving behavioral tendencies was more likely to predict internalizing problem tendencies, materialism involving

beliefs/values was more likely to predict externalizing problem tendencies. Among seven facets of materialism, Believing Owning Things Makes for Happiness demonstrated the strongest relations with psychosocial maladjustment, significantly predicting internalizing problem tendencies, externalizing problem tendencies, and well-being problems.

However, facets of materialism did not seem to be the only source of associations with psychosocial maladjustment. Unmitigated Self-Interest was also found to contribute to the prediction of externalizing problem tendencies and one of the social well-being indicators (i.e., Social Well-Being), beyond the variance explained by facets of materialism. In other words, materialism's relations with externalizing problem tendencies and Social Well-Being were accounted for by both materialism and the broader construct of Unmitigated Self-Interest.

*Concurrent Relations between Facets of Unmitigated Self-Interest  
and Psychosocial Maladjustment*

Study 2 further examined the relations between facets of Unmitigated Self-Interest and psychosocial maladjustment. Using the Unmitigated Self-Interest scale developed by Saucier (2004) that include subscales of materialist beliefs and values (i.e., materialist values, commercialism, and physicalism) and ten other facets of Unmitigated Self-Interest (e.g., Machiavellianism, hedonism), I examined whether, beyond materialist beliefs and values, the larger construct of Unmitigated Self-Interest was also associated with psychosocial maladjustment and, if so, which facets of Unmitigated Self-Interest were likely to account for the relations. The results suggest that Unmitigated Self-Interest did make a unique contribution to the prediction of the Externalizing Problems Indicator,

beyond the variance explained by materialist beliefs and values. The prediction made by Unmitigated Self-Interest was shown to be even stronger than that made by materialist beliefs and values. Unmitigated Self-Interest also predicted two internalizing problem indicators (i.e., Emotional Instability and Internalizing Negative Emotionality) that were not predicted by materialist beliefs and values. The specific facets of Machiavellianism and hedonism were found to be most likely to account for the contributions to prediction made by Unmitigated Self-Interest.

*Temporal Relations between Materialism and Psychosocial Maladjustment*

As discussed in Chapter Two, the relation between materialism and psychosocial maladjustment is complex and perhaps bi-directional (i.e., Richins & Dawson, 1992). In Study 3, I first examined whether facets of materialism were the consequent, the antecedent, or both, in relations with psychosocial maladjustment. For example, some researchers have endorsed a theoretical view that sees psychosocial maladjustment as an antecedent of materialism (e.g., Abramson & Inglehart, 1995; Chang & Arkin, 2002; Cohen & Cohen, 1996; Inglehart & Abramson, 1994; Kasser, 2002; Kasser, Ryan, Zax & Sameroff, 1995; Rindfleisch, Burroughs & Denton, 1997; Solberg, Diener & Robinson, 2004; Williams, 2000). In such a context, materialism is often conceptualized as a compensation mechanism that arises in response to psychosocial maladjustment. The findings of this dissertation research provide support for this perspective. Specifically, Believing Owning Things Makes for Happiness was found to be a consequent of psychosocial maladjustment, predicted by all four psychosocial maladjustment indicators.

This facet of materialism was most likely to account for this type of relation. Although the pattern was not as clear, Possession-Guarding also emerged as a consequent, predicted by one psychosocial maladjustment indicator.

In contrast, other researchers have endorsed a theoretical view in which materialism, specifically materialist beliefs and values, serves as an antecedent of psychosocial maladjustment (e.g., Kasser, 2002; Kasser et al., 2007; Lane, 2000; McHoskey, 1999; Richins, 1991; Sheldon et al., 2001; Sirgy et al., 1998). The findings of this dissertation research provide support for this perspective but also indicate that materialist beliefs and values as the consequent may have an equal effect size magnitude. Believing Owning Things Makes for Happiness appears to be the strongest antecedent among all facets of materialism, predicting all four psychosocial maladjustment indicators. Additionally, Valuing Money and Status also emerged as antecedents predicting two psychosocial maladjustment indicators. Interestingly, Believing Owning Things Makes for Happiness (also Possession-Guarding, to a lesser extent) was found to be both an antecedent and a consequent of psychosocial maladjustment. On the behavioral level, Possession-Guarding and Buying as the antecedent were also found to make unique contribution to the prediction of aspects of psychosocial maladjustment as the consequent beyond facets of materialism involving beliefs and values. Specifically, Possession-Guarding predicted two indicators and Buying predicted one. This suggests that not only facets of materialism involving beliefs and values, but also facets of materialism involving behavioral tendencies, appear to serve as antecedents of psychosocial maladjustment.

*Materialist Beliefs/Values as the Antecedent of Psychosocial**Maladjustment: What Accounts for the Relations?*

In addressing what accounts for the relation between *materialist beliefs/values* and psychosocial maladjustment in which materialism functions as the antecedent, two hypotheses are considered: Whereas the crowding-out hypothesis (Kasser, 2002) implies that the relation will be confined to materialist beliefs/values, the hidden-hand hypothesis (Lane, 2000) states that the seeming relation will be accounted for by Unmitigated Self-Interest. As such, in Study 3, I further examined cases in which facets of materialism involving beliefs and values were the antecedent of psychosocial maladjustment. Specifically, I examined whether such relations were directly accounted for by Unmitigated Self-Interest. The results suggest that whereas the relation observed between Believing Owning Things Makes for Happiness with Subjective Well-Being was confined to that predictor (Believing Owning Things Makes for Happiness alone), the relations observed between Believing Owning Things Makes for Happiness and the other three indicators of psychosocial maladjustment were accounted for by both Believing Owning Things Makes for Happiness and Unmitigated Self-Interest. Further, whereas the relation observed between Valuing Money and Status and the Externalizing Problem Indicator was accounted for independently by both Valuing Money and Status and Unmitigated Self-Interest, the relation observed between Valuing Money and Status and Emotional Instability was apparently due to Unmitigated Self-Interest alone. This suggested that the crowding-out hypothesis alone may not always match reality, and will be insufficient to address the source of materialist beliefs/values' relations with



psychosocial maladjustment. Rather, the hidden hand hypothesis and/or a blend of both hidden-hand and crowding-out may provide a better, more nuanced understanding of some of the relations between materialism and psychosocial maladjustment.

Most importantly, an examination of the temporal relations between Unmitigated Self-Interest and psychosocial maladjustment clearly indicated a unidirectional pattern: Unmitigated Self-Interest was found to be the antecedent of three psychosocial maladjustment indicators, but not the consequent of any of the psychosocial maladjustment indicators. This finding not only provides support for the causal direction implied in the hidden-hand hypothesis (Lane, 2000), but also suggests that Unmitigated Self-Interest as a predictor of psychosocial maladjustment needs additional empirical attention.

### *Future Directions*

Future research should extend the examination of the crowding-out hypothesis (Kasser, 2002) and the hidden-hand hypothesis (Lane, 2000) by looking at the mechanisms through which materialism and aspects of psychosocial maladjustment are related. Based on the crowding-out hypothesis, materialist beliefs and values would lead people to engage in behaviors (e.g., TV watching, shopping, and maintaining instrumental relationships with others) that would “crowd out” time and energy for engagement of behaviors that are good for healthy functioning and development, and in turn result in psychosocial maladjustment. An implication is that although materialist beliefs/values (as the antecedent) do contribute to the prediction of psychosocial maladjustment (as the consequent), such relations might be mediated by a group of

behaviors that are encouraged by materialist beliefs/values. It is important to further the examination of the crowding-out hypothesis by next identifying behaviors that might mediate the relations between materialist beliefs/values and psychosocial maladjustment. Furthermore, the hidden-hand hypothesis indicates that the detrimental effect of a self-serving worldview orientation as characterized by Unmitigated Self-Interest (Saucier, 2000) is rooted in the practice of applying the principles and procedures used by a market mentality to social domains outside of a market setting. It is important to next examine whether behaviors characterized by such a tendency to contaminate one's interpersonal relationships by a market mentality would mediate the relation between Unmitigated Self-Interest and psychosocial maladjustment.

This dissertation research focused on examining what accounts for the relation between materialism and psychosocial maladjustment. It will be useful to broaden this line of research by focusing on problems of well-being on the ecological level, examining the impact of beliefs and values related to materialism on behaviors that are significant to the health of the environment. Specifically, research has indicated that materialism fuels excessively consumptive behavior that contributes to harm in the environment, resulting in outcomes such as global warming and pollution (N. Myers, 1997; cited in Solomon, Greenberg, & Pyszczynski, 2005). Highly materialistic individuals have been found to care less about the environment (Saunders & Munro, 2000) and engage in less environment-friendly behaviors (Richins & Dawson, 1992; Brown & Kasser, 2005; Kasser, 2005) than individuals who are less materialistic. Future research should examine whether and which facets of materialism are likely to account for materialism's relations

with behaviors that are significant to environmental problems, and whether such relations are confined to facets of materialism alone, or due to Unmitigated Self-Interest, or both.

Future studies should also be conducted cross-culturally. To gain a more advanced understanding of materialism, it is necessary to investigate whether the same patterns observed in this study will be replicated in different cultural settings. Do multiple types of materialism have the same patterns of relation with aspects of psychosocial maladjustment? Would Believing Owning Things Makes for Happiness, for example, be found as both the antecedent and consequent of psychosocial maladjustment in a different cultural setting? Do additional facets of materialism exist, and/or does Unmitigated Self-Interest have the same patterns of relation? It is very possible that people's relationships with material world are expressed differently in different cultures, and hence the relations between multiple types of materialism and well-being might be different.

### Limitations

Several limitations need to be considered in this dissertation research. First, data used in Study 2 and Study 3 were collected as part of the Eugene-Springfield Community Sample. These data were based on abbreviated forms of subscales of the materialism measure, and did not include the materialism subscales of Valuing Attractiveness and Sexiness and Philosophical Materialism. To provide stronger, more detailed understanding of the temporal relation between facets of materialism and psychosocial maladjustment, it will be useful for future studies to use the materialism measure that includes all seven facets of materialism. Further, only a general externalizing problem tendency indicator and one well-being indicator were included in Studies 2 and 3. Future

studies should include measures of externalizing problem tendencies that identify different aspects of this construct (e.g., the two psychopathy scales and the social well-being indicators, and perhaps tendencies toward substance abuse) and the social well-being indicators (e.g., social satisfaction, social well-being, and perceived social support), as used in study 1. This will enable a more elaborate assessment of the specific relations among aspects of materialism, Unmitigated Self-Interest, and psychosocial maladjustment. Further, as discussed earlier, in the longitudinal analyses of Study 3, all the psychosocial maladjustment indicators at Time 1 were administered earlier than the materialism measure and the Unmitigated Self-Interest measure, which may have resulted in some degree of inaccuracy in parameter estimates. Although the results point to useful directions for future research, these questions need to be addressed with a more perfect research design before drawing confident conclusions on the temporal relation between materialism and psychosocial maladjustment, and the role played by Unmitigated Self-Interest.

### Conclusions

In summary, the most important messages derived from this dissertation can be expressed in terms of the following “take home messages.”

First, based on concurrent data, we can infer that each individual facet of materialism demonstrates distinct patterns of correlation with aspects of psychosocial maladjustment. This suggests that it is useful to treat facets of materialism investigated here as separate constructs.

Second, also based on concurrent data, we can infer that beyond the variance accounted for by materialist beliefs/values, Unmitigated Self-Interest incrementally contributes to psychosocial maladjustment. Machiavellianism and hedonism appear to be the major sources of these incremental contributions.

Third, based on longitudinal data, we can infer that the relation between materialism and psychosocial maladjustment is likely to be bi-directional. Among facets of materialism, Believing Owning Things Makes for Happiness emerged as the most important predictor, both as an antecedent and as the consequent of psychosocial maladjustment.

Fourth, where materialist values/beliefs are the antecedent and psychosocial maladjustment the consequent, we can infer that these relations may go beyond materialist values/beliefs alone. That is, the relations may be partly due to Unmitigated Self-Interest.

Fifth, we might infer that Unmitigated Self-Interest is an even stronger predictor for psychosocial maladjustment than materialism. In both the correlational and longitudinal data, Unmitigated Self-Interest contributed to unique variance predicting psychosocial maladjustment indicators that were also predicted by materialism (e.g., externalizing problem indicators in Study 1 and the Externalizing Problem Indicator in Study 3). Moreover, Unmitigated Self-Interest also predicted indicators that were not predicted by materialism (e.g., Social Well-Being in Study 1 and Emotional Instability and Internalizing Negative Emotionality in Study 3). We can infer from these longitudinal data indicated that Unmitigated Self-Interest's relations with psychosocial

maladjustment may be unidirectional, with Unmitigated Self-Interest functioning as the antecedent only. Although caution is needed due to the limitations of the longitudinal data used in the present research, these results do point to important directions in understanding the complex relations among facets of materialism, Unmitigated Self-Interest, and psychosocial maladjustment.

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