

Do Individual Differences in Authenticity Influence the
Magnitude and Affective Consequences of Self-Discrepancies?

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Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor
of Philosophy in the Department of
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ABSTRACT

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Abstract

Theories of self-regulation address the continuous process in which individuals compare their behavior to salient goals or standards. Two well-known theories of self-regulation, self-discrepancy theory (SDT) and regulatory focus theory (RFT), each make distinctions regarding the types of standards and goals in reference to which individuals self-regulate. Authenticity—the idea of being one’s true self—has the potential to influence the kinds of goals or standards that individuals come to possess and may have implications for understanding the outcomes of self-regulatory processes. This research links the construct of authenticity with SDT and RFT, emphasizing how individual differences in authenticity could influence the motivational and affective consequences of self-regulation predicted within each theory. Individual differences in authenticity were expected to influence the nature of the goals and standards that individuals hold, as well as the acute and chronic affective consequences of discrepancies between the actual self and the ideal and ought self-guides respectively. Specifically, individual differences in authenticity were expected to predict magnitude of actual:ideal and actual:ought self-discrepancy as well as the intensity of distress that individuals report (acutely as well as chronically) in association with self-discrepancies. More importantly, self-discrepancies were expected to be less prevalent among individuals high in authenticity, but more distressing among high-authenticity individuals than among

individuals with lower levels of authenticity. The results of this research suggest that individual differences in authentic behavior do have a direct influence on both acute and chronic affect. Authenticity was found to interact with self-discrepancies in predicting chronic affect. Authenticity has a unique role in the process of self-regulation, distinct from the contributions of SDT and RFT.

Dedication

This dissertation is dedicated to those who believe that sometimes the universe knows better than you. This dissertation is dedicated to my husband Tom with whom I have always felt I can be my true self, and to my son Brennan and daughter Hannah who bring my life such eternal joy.

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1. Introduction

Throughout the history of psychology as a discipline, researchers have been investigating the processes of self-regulation, generally defined as the processes that determine how individuals control their behavior in reference to their goals and standards (Vohs & Baumeister, 2004). These efforts have culminated in a large body of literature that provides important insights into the ways in which individuals think about themselves and make choices about their behavior. Two common features across theories of self-regulation are an understanding that individuals compare their behavior to salient goals or standards (Carver & Scheier, 1981a) and that the outcome of such comparison involves both motivational and affective states with important consequences for subsequent behavior. Such “comparator” theories have amassed substantial empirical support and have been applied to a broad range of behavioral phenomena, including both everyday adaptation as well as psychological disorders such as depression and anxiety (e.g., Higgins, 1987).

Two theories of self-regulation that have been highly influential in the recent self-regulation literature are self-discrepancy theory (SDT) and regulatory focus theory (RFT). Self-discrepancy theory (Higgins, 1987) postulates two kinds of self-guides, the *ideal self*, an individual’s (or close other’s) hopes or aspirations for the individual, and the *ought self*, an individual’s (or close other’s) beliefs about the individual’s

responsibilities and/or obligations. Regulatory focus theory (Higgins, 1997), a revised and expanded version of self-discrepancy theory, postulates two distinct motivational systems characterized by different kinds of goals and motivational processes: *promotion* goals emphasize accomplishments and aspirations (“making good things happen”), whereas *prevention* goals emphasize safety and responsibility (“keeping bad things from happening”). Prevention goals are reflective of the ought self standard, and promotion goals reflect the ideal self standard (see for example, Higgins, 1997, Strauman, 1996).

For many different aspects of social cognition, individual difference variables have been shown to play important mediating and/or moderating roles. One such individual difference variable that may influence the ongoing process of self-regulation is authenticity. Scholars have been writing about authenticity—the idea of being one’s true self—for centuries, but authenticity has only recently been effectively operationalized and empirically examined within the social sciences. The topic of authenticity has been increasingly addressed, if not romanticized, by popular culture in recent years. It has been a focus of the self-help constituency (e.g., *Something More: Excavating Your Authentic Self* by Sarah Ban Breathnach, 1998), Martin Seligman’s *Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment* (2002), and Stephen Covey (2004) recently esteemed it as the eighth habit of highly effective people. Although the idea of being authentic is regarded as a virtue and

a means to success, scientific understanding of the nature and implications of authenticity is limited. Claims that authenticity should be pursued as a way to achieve health and well-being seem reasonable and potentially productive, yet the costs and benefits of authenticity are not fully understood. However, the existing empirical research on authenticity suggests that authenticity has potentially significant implications for how individuals view themselves, set goals, and pursue those goals. Addressing the role of authenticity within the process of self-regulation, the focus of this dissertation research, has the potential to deepen our understanding of self-regulatory processes by revealing how an individual's desire to be true to themselves moderates the extent to which self-discrepancies are experienced as well as the extent to which such discrepancies produce negative affect.

The remainder of this document is divided into five chapters. In chapter 2, I review several relevant literatures. That section is divided into two parts. First, I provide the background regarding two prominent theories of self-regulation mentioned above, SDT and RFT, which are both phenomenological and interpersonal and reflect the symbolic interactionism roots from which the construct of authenticity also emerged. These shared roots make these two theories especially suitable for the integrating the constructs of self-regulation and authenticity. I highlight the main points of each theory in terms of standards and goals and describe their predictions regarding the affective

consequences of the self-regulation process. Next, I briefly review the state of the science regarding the construct of authenticity. I begin by providing a brief historical sketch of psychological understandings of authenticity and consider definitions of authenticity, emphasizing factors that distinguish it from other relevant constructs such as sincerity, impression management, self-monitoring, self-verification, and self-enhancement. The chapter concludes with a survey of recent research on authenticity, emphasizing empirical studies in which authenticity is appropriately operationalized. In the third chapter, I propose that individual differences in authenticity can influence the process of self-regulation as described in SDT and RFT. I offer a number of postulates regarding the role of individual differences in authenticity in self-regulation, including the ideas that authenticity influences the likelihood that individuals experience self-discrepancies through two potential mechanisms. The postulates identify authenticity as a neglected but critical moderator in self-regulation that has important and unique implications for both chronic and acute distress.

Having laid out the conceptual linkages among the frameworks, in the fourth and fifth chapters I present a set of hypotheses about the role of individual differences in authenticity for predicting the acute and chronic affective consequences of self-regulation and report the results of the studies conducted. In the final chapter of this dissertation I summarize the studies that were conducted and examine their

implications for how individual differences in authenticity might have both momentary and chronic influences on self-regulation.

2. Literature Review

2.1 General Introduction

This document describes research designed to explore authenticity's role within two specific theories of self-regulation: self-discrepancy theory and regulatory focus theory. The literature review is divided into several parts. First, I provide background about each of theories of self-regulation under consideration. The second part of this review focuses on research and literature describing authenticity. In the third chapter of this dissertation, I describe the conceptual linkages between authenticity and these theories of self-regulation, and provide an overview of the research design of the studies.

2.2 Theories of Self-Regulation

A number of theories have proposed that self-regulation is an ongoing, moment-to-moment process with motivational and affective consequences. Self-regulation has been construed in many different ways: for instance, as a feedback loop (Carver & Scheier, 1981b) or, more metaphorically, as a muscle (Baumeister, Muraven, Bratlavsky, & Tice, 1998). Theories of self-regulation have focused on the role of self-awareness (Duval & Wicklund, 1972; Carver & Scheier, 1981b), attention (Botvinick, Braver, Barch, Carter, & Cohen, 2001), discrepancy between behavior and standards/goals (Carver & Scheier, 1981b; Higgins, 1987), and affective consequences of self-evaluation (Higgins,

1987; Srull & Wyer, 1985). The breadth of the literature on self-regulation suggests that the construct is central to our understanding of human behavior. From the perspective of social psychology, the purpose of self-regulation is to bring behavior into line with personally salient goals and standards in order to enhance the individual's adaptation to the social world and physical environment (Banfield, Wyland, MacRae, Münte, & Heatherton, 2004; Carver, 2004; Eisenberg, Smith, Sadovsky, & Spinard, 2004).

However, even among social psychologists there are differences in emphasis regarding how self-regulation operates: those in psychology tend to focus on the regulation of behavior in comparison to internal standards, while more sociological approaches focus on regulation in the context of situational or external standards and emphasize social structure (see for example, Burke, 1980; McCall & Simmons, 1978; Stryker, 1968; R.H. Turner, 1978; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Nonetheless, even a cursory review of research on self-regulation suggests that the field converges to view self-regulation as a continuous process that is related to individuals' standards and goals (Banfield, Wyland, MacRae, Münte, & Heatherton, 2004; Baumeister, Heatherton, & Tice, 1994; Carver, 2004; Mischel & Ayduk, 2004). This process involves both monitoring behavior in reference to a salient goal or standard as well as making adjustments to behaviors based on the outcomes of the monitoring process (Carver, 2004; Rothbaum, Weisz, & Snyder, 1982; Vohs & Baumeister, 2004).

In this section, I review two prominent theories of self-regulation. I then discuss the commonalities and differences between the theories in terms of their implications for understanding motivation (via standards and goals) and their implications for predicting the affective consequences of self-regulation. These theories were selected because they each propose a comparative process involving an individual's actual behavior or attributes and a salient goal or standard, and because they make specific predictions regarding how successful vs. unsuccessful self-regulation will have distinct motivational and affective consequences. In addition, both theories are reflective of the symbolic interactionist tradition from which the construct of authenticity also emerged (in particular, assumptions about human agency upon which understandings of authenticity are based). The two theories of self-regulation reviewed below share a number of assumptions. These shared assumptions allow for conceptual linkages to be made between authenticity and the theoretical frameworks.

2.2.1 Self-Discrepancy Theory: Recent Evidence for Authenticity

Self-discrepancy theory (SDT; Higgins, 1987) proposed that discrepancies between individuals' representations of their actual versus their desired self-states are associated with emotional vulnerabilities. SDT postulates three kinds of self-state representations: the actual self, the ideal self, and the ought self. The actual self is the individual's representation of her/his current behavior and attributes – what a number

of theories of the self refer to as “self-concept.” The ideal self is the individual’s representation of the attributes that someone (self or other) would ideally like him or her to possess — that is, someone’s hopes, aspirations, or wishes for them. The ought self is the individual’s representation of the attributes that someone (self or other) believes he or she should or ought to possess — that is, a representation of the individual’s duties, obligations, or responsibilities.

According to SDT, actual:ideal (AI) discrepancies are associated with dysphoric affect as well as (if sufficiently intense and chronic) depressive symptoms, whereas actual:ought (AO) discrepancies are associated with anxious/agitated affect as well as (again, if sufficiently intense and chronic), symptoms of anxiety. Both correlational and experimental research provides direct support for the hypotheses of SDT (see for example Higgins, Klein, & Strauman, 1985; Strauman & Higgins, 1987) and demonstrates the stability of self-discrepancies across time (e.g., Strauman 1996). That is, SDT predicts not only momentary distress but also more chronic depressive and anxious symptomatology (Higgins, 1987). Further, the theory postulates that the likelihood that a self-discrepancy produces psychological distress depends on the accessibility of the self-discrepancy (Higgins, 1989). As will be described subsequently, the accessibility of self-guides or self-discrepancies is one possible mechanism by which authenticity influences self-regulation.

SDT has made several unique contributions to the self-regulation literature. Drawing upon a range of sources, SDT predicts that the affective consequences that result from a self-discrepancy will vary depending on the type of self-guide involved (i.e., ideal or ought). In addition, SDT emphasizes *standpoints* of self -- the source of the evaluation; own (oneself) or other (i.e., the self, a parent or sibling)¹. This results in six basic domain-of-self/standpoint-on-self combinations: actual/own, actual/other, ideal/own, ideal/other, ought/own, and ought/other (Higgins, 1987). This aspect of the theory affords researchers the ability to link affective outcomes with both the type of self-state representation and the source of that representation. Other researchers have considered the ways that individuals preserve their own self-theories and self-conceptions in the face of theory-discrepant information (Snyder & R. Higgins, 1997).

Since SDT was introduced, psychologists have been interested in its implications for understanding an array of phenomena, in addition to the acute dysphoric and agitated affective states predicted by SDT's initial conceptualization. Much of this research has focused on SDT's broader clinical implications. A number of studies provide support for a diathesis-stress model of psychological vulnerability in which individuals with greater self-discrepancies (particularly actual:ideal) are at greater risk in the face of stressful events than others (Pierce, Strauman, & Vandell, 1999). SDT has

¹ Only own standpoints are assessed in the studies conducted in this dissertation.

been linked with disordered eating (see for example, Strauman, Vookles, Barenstein, Chaiken, & Higgins, 1991; Higgins, Vookles, & Tykocinsky, 1991; Forston and Stanton, 1992; Szymanski and Cash, 1995; Snyder, 1997), and self-discrepancies have also been linked to social phobia and dysthymia (Weilage & Hope, 1999) and have been implicated in suicidality (Cornette, Abramson, & Bardone, 2000). Other investigators have examined the acute and chronic physiological consequences of self-discrepancies. For example, Waters, Keefe, and Strauman (2004) reported on the associations between SDT and chronic low back pain that suggests that self-discrepancies are associated with pain and psychological distress, and there is some suggestion that self-regulatory processes have implications for immune reactivity and physical health (via NK cell activity, Strauman, Woods, Schneider, Kwapil, & Coe, 2004). The emotional outcomes of discrepancies have been considered as mediators of the influence of multiple aspects of identity on well-being (Brook, Garcia, & Fleming, 2008). The model of self-regulation postulated by SDT is useful for understanding a wide array of psychological and physiological phenomena. Understanding the influence of a potential moderator of these self-discrepancies, authenticity, has the potential to generate important new data for this broad array of outcomes.

A small number of studies have examined the predictions of SDT regarding the positive affective consequences of self-congruency. Moretti and Higgins (1990) found

that when idiographic measures of self-discrepancies are employed (i.e. as in the Selves Questionnaire in which individuals describe their actual, ideal, and ought selves using a free-response format), positive actual self terms that match the ideal self are associated with high self-esteem, and negative actual self terms that do not match the ideal self are associated with low self-esteem. Linkages between SDT and self-esteem are relevant to the current study because authenticity, as a proposed moderator of the relation between self-discrepancy and affect, is also associated with self-esteem. However, more importantly, the Moretti and Higgins study found that self-discrepancies predicted well-being and distress beyond the usual associations of those two constructs with self-esteem. That is, self-discrepancy is not simply reducible to self-esteem. More recent research on SDT addresses its implications for relationships, suggesting its utility for understanding affective consequences of phenomena such as group membership (Bizman, Yinon, & Krotman, 2001), dyadic interactions (Robins & Boldero, 2003), and closeness in relationships (Rusbult, Kumashiro, Stocker, & Wolf, 2005). As above, given authenticity's relational nature, the idea that self-discrepancies can influence how we relate to others implies that understanding the role of authenticity within such interactions could contribute significantly to understanding the interpersonal consequences of self-regulation.

Overall, the aspects of SDT that are most relevant to the current research are the idea that self-regulation is a process in which individuals' self-state representations became activated, and that individuals engage in a comparison process comparing the actual self to one or more self-guides, leading to affective and motivational responses to the comparison. Within that framework, individual differences in authenticity may be relevant in several ways, specifically in influencing the kinds of self-state representations individuals hold, the likelihood that individuals will engage in the comparative process, the likelihood that the comparative process will result in self-discrepancies, and the magnitude of the affective response to self-discrepancies. These predictions will be described in greater detail in a subsequent section.

Self-discrepancies can be measured in a number of ways. The most common method is through use of the Selves Questionnaire (SQ; Higgins, Klein, & Strauman, 1985). This survey instrument asks respondents to list terms that describe their actual, ideal, and ought selves. Researchers then compare the terms on the various lists assessing whether the terms on the ideal and ought lists are antonyms or synonyms to the terms on the actual self lists. A formula is then used to calculate the value of the individual's actual:ideal or actual:ought discrepancy. This questionnaire can also be administered in an interview setting, and a computerized questionnaire has been designed and used in other research (e.g., Higgins, Shah & Friedman, 1997; Shah &

Higgins, 1997; Shah, Higgins, & Friedman, 1998; Shah & Higgins, 2001). Although the free-response format of the traditional SQ (Higgins et al., 1985) tends to elicit actual-self attributes and self-guides that are highly accessible, an advantage of the computerized questionnaire is that it records response times, which represent an alternative operationalization of the accessibility of ideal and ought self-guides. Self-discrepancies, once measured, can be activated with or without the conscious awareness of the participant through priming manipulations in experimental studies.

2.2.2 Regulatory Focus Theory

Regulatory focus theory (RFT; Higgins, 1997) is a broader theory of self-regulation that builds upon SDT, postulating that individuals engage in self-regulation toward positive end-states in distinct ways: with either a promotion focus, emphasizing accomplishments, aspirations, and ideals, or a prevention focus, emphasizing self-regulation toward safety, responsibilities, and oughts. According to RFT, individuals vary in their characteristic strength of orientation toward promotion goals (“making good things happen”) and prevention goals (“keeping bad things from happening”). RFT also postulates that regulatory focus can vary from moment to moment (as a function of situational factors) and that individual differences in strength of promotion/prevention focus also influence behavior (Higgins, 1997).

Prevention and promotion focus are associated with different goal pursuit strategies and characteristic motivational states. Promotion focus is associated with the use of approach as the strategic means of goal-pursuit, eagerness, and a desire to maximize hits and insure against errors of omission. Prevention focus is associated with avoidance as strategic means of goal-pursuit, vigilance, and a desire to insure correct rejections and minimize errors of commission. Whereas promotion focus is characterized by sensitivity to the presence or absence of positive outcomes, prevention focus is characterized by sensitivity to the absence or presence of negative outcomes. These differences in strategic tendencies also have implications for emotional responses to goal pursuit and attainment. Goal attainment produces cheerfulness when people are in a promotion focus, whereas attaining the same goal produces quiescence when people are in a prevention focus (Higgins, Shah, & Friedman, 1997). Although regulatory focus can be considered as an attribute of the individual (i.e., a stable individual difference representing a preference for one type of self-regulation in goal pursuit), it also can be cued by the social environment. Situations in which the current regulatory focus of the person and the demands of the social context match can be considered examples of *regulatory fit* (Higgins, 2000), a distinct area of research that will not be considered further in this review.

Many studies have been conducted to test the predictions of RFT that also provide insights into the developmental origins of regulatory focus and its functional implications in the ongoing process of self-regulation. Through interactions and experiences with parents and peers, children acquire specific standards for self-regulation and develop more general regulatory styles (Higgins, 1989; Manian, Papadakis, Strauman, & Essex, 2006). Research on the development of individual differences in regulatory focus suggests that differential exposure to patterns of contingent caretaker/child interactions contributes to the emergence of promotion and prevention focus. Parent/child interactions can be promotion-oriented, in which experiences of pleasure and pain occur when rewards are given and withheld, or prevention-oriented, in which pleasure and pain are experienced when losses are avoided or when punishment is used respectively (Förster, Higgins, & Idson, 1998). Over the course of childhood, different parenting styles can lead to differences in the types of goals children and adolescents pursue, which in turn lead to individual differences in affect, motivation, and behavior (Manian et al., 2006). In addition, individual differences in regulatory focus have been observed across cultures (see for example, Lockwood, Sadlers, Fyman, & Tuck, 2004; Lockwood, Marshall, & Sadler, 2005). The developmental aspects of RFT are especially relevant considering what is known about the developmental trajectory of authenticity (see below).

RFT has important implications for understanding both motivational and affective aspects of the self-regulation process. The extent to which an individual is motivated to pursue a positive end-state can be either a desire to garner accomplishments (promotion) or to avoid losses (prevention) (Shah, Higgins, & Friedman, 1998). Research has found that regulatory focus not only differentiates perceptions of incentives for goal attainment but also definitions of and affective consequences for success. In a promotion focus, success is marked by satisfaction and failure by dejection, whereas a prevention focus of success is marked by relaxation and failure by agitation (Leone, Perugini, & Bagozzi, 2005). Recent research suggests that individual differences in regulatory orientation also may be developed in part through the selection of role models. Promotion-oriented individuals are more likely to recall positive role models, whereas prevention-oriented individuals hold a clearer picture of things to avoid (Miller & Markman, 2007). Regulatory focus also has been shown to have implications for how individuals behave in relationships (e.g., Santelli, Struthers, & Eaton, 2009). Within the context of this dissertation, it is postulated that regulatory style may be associated with whether one is oriented primarily toward achieving authenticity or toward avoiding inauthenticity.

RFT proposes that each regulatory orientation has distinct costs as well as benefits, so that preferring one kind of goal might render an individual less vulnerable

to certain problems or disorders but more vulnerable to others. For example, recent data suggest an association between prevention focus and aggression (Keller, Hurst, & Uskul, 2008). Yet, initial data suggest that prevention focus is a protective factor against initiation of adolescent substance use (Franzese, Costanzo, & Strauman, unpublished manuscript). Promotion focus is associated with better outcomes in negotiations (Galinsky, Leonardelli, Okhuysen, and Musswiler, 2005). Another potential benefit of promotion focus is its association with a greater illusion of being in control in a seemingly uncontrollable situation (Langens, 2007). The eagerness and risk-taking of promotion focus may be beneficial in some situations and problematic in others, whereas the vigilance and risk-avoidance of prevention orientation may keep one from maximizing their potential in some domains but offer a protective effect in others. Within the overall framework of RFT, I suggest that individual differences in preferences for authenticity may contribute to the process of self-regulation in several ways, including the possibility that a promotion orientation would be more congruent with high levels of authenticity than would a prevention orientation.

As noted above, regulatory focus is both induced by situational features and measurable as a stable individual difference. One way to assess chronic regulatory focus is via the Regulatory Focus Questionnaire (RFQ; Shah & Higgins, 1997), a self-report instrument that assesses (for both promotion and prevention) recalled socialization

toward each kind of goal and current impressions of success vs. failure in attaining such goals. Specifically, the RFQ assesses strength of regulatory orientation via history and success (or “pride”) subscales. History scales reflect the extent to which individuals were socialized toward pursuit of prevention and promotion goals, whereas success scales measure individuals’ perceived success pursuing each type of goal. Promotion-oriented individuals are hypothesized to have relatively greater chronic accessibility of ideal standards, whereas prevention-oriented individuals are hypothesized to have relatively greater chronic accessibility of ought standards (e.g., Higgins, 1997; Strauman 1996).

2.2.3 Common Aspects of SDT and RFT

SDT and RFT have a common focus on the role of standards and goals in the self-regulation process, as well as the implications of ongoing self-regulation for the individual’s motivational and affective state. Within the process of self-regulation, standards and goals serve three main purposes. First, they serve a motivational purpose by maintaining the accessibility of desired end-states and helping to direct planning and behavior toward such end-states (Markus & Nurius, 1986; Miller & Brickman, 2003). Second, they serve an organizational purpose by providing order and structure to hierarchies of sub-goals consistent with the overall goal or standard (Higgins, 1987; Pervin, 1983). Third, they serve an evaluative purpose by acting as reference values for

individuals' current experiences and behavior (Carver & Scheier, 1981b; Markus & Nurius, 1986).

Both promotion and prevention are hypothesized to focus on desired end-states but to differ in the nature of how those end states are conceptualized and the strategies used to bring about such end states (Higgins, 1997). Thus, knowing an individual's current regulatory focus (either situationally induced or chronic) provides important information about the kinds of goals that are likely to be accessible as well as the strategies the individual is likely to use in pursuing them. Similarly, knowing the content of an individual's active self-representations (actual, ideal, and ought) allows for predictions regarding the acute affective consequences of self-regulation.

In summary, both SDT and RFT predict affective and motivational responses to the self-regulatory process. These are directly described in SDT in terms of the specific affective consequences predicted for actual:ideal vs. actual:ought discrepancy. The regulatory orientations postulated by RFT are each associated with affective consequences, depending on the perceived success or failure of goal pursuit. It is as yet unknown whether the process of self-regulation in general, and the predictions of SDT and RFT specifically, differ for individuals who differ in authenticity. This paper will now turn to a review of what is known about authenticity as a psychological construct.

2.3 Authenticity

The history of authenticity as a concept can be traced back for centuries, yet it is only in the last decade or so that authenticity has been effectively operationalized and empirically examined. Because authenticity has only recently come under systematic empirical inquiry, I provide a historical review of authenticity and distinguish it from related psychological variables before providing an overview of the existing empirical literature that has addressed authenticity.

2.3.1 The History of Authenticity

Philosophers first mused about the concept of authenticity hundreds of years ago. These writings provide interesting conceptualizations of the idea of authenticity, considering important questions such as whether a true self exists, whether individuals can control the display of the true self, and how culture influences who we are. More modern philosophers such as Trilling (1971) and Adorno (1973) considered these questions further, emphasizing the subjectivity of the construct as well as its existential roots. Within the psychoanalytic tradition, the writings of Winnicott (particularly in a 1960 essay) brought attention to the idea of authenticity, explicitly discussing the ideas of false self and true self. The existential connotations of authenticity also surfaced in humanistic psychology, which emerged in the 1950s. As a reaction to behaviorism and psychoanalysis, humanistic psychology drew from philosophical considerations of self

(see for example, Bugental, 1964, 1965). Humanistic psychology counted Abraham Maslow and Carl Rogers among its proponents, and gained significant force in the sixties and seventies as a more positive and affirming approach to understanding the self, marking the starting point of the positive psychology movement that continues to grow in prominence today. The qualitative methodologies associated with humanistic psychology (Clay, 2002, Aanstoos, Serlin & Greening, 2000) may account for the ethnographic approach to authenticity that is most prevalent in many social sciences today. The self-help literature, in which the notion authenticity often appears, is also compatible with humanistic psychology, and the self-help books related to authenticity can be considered an outgrowth of that perspective.

Around the same time period in which humanistic psychologists focused their writings on the challenges of authenticity, the research of sociologist Erving Goffman gained prominence as an outgrowth of symbolic interactionism (SI). SI approaches to the study of human nature emphasized the introspective side of the self through Cooley's looking-glass self (Cooley, 1902) and the distinction between the *I* and the *Me*, a distinction traced to George Herbert Mead among others (see Mead, 1934). The *I*, as the subjective, impulse-oriented part of the self, was said to coexist with the *me*, the other-oriented objective component of the self, allowing behavioral scientists to conceptualize people as both subjects and objects. This tradition is also evident in the development of

SDT which emphasizes the internal representations individuals hold, and the ability individuals have to engage in the comparative process of self-regulation. Goffman's (1959) book *The Presentation of Self in Everyday Life* used a dramaturgical metaphor to analyze the interplay between the individual and the larger society. Goffman conceptualized the process of social interaction as similar to the way in which the actor constructs a face and performs his or her role, working to create a front that is both believable and elicits the approval of others. The question of authenticity arises in this process: performers may or may not believe that the way they act is 'real,' and cynics do not believe their own acts. Goffman's research emphasized how social arrangements conspire to make us unable to identify our own genuine nature. Research on authenticity has continued to grow since these early conceptualizations, and the topic has received continued attention through the emerging positive psychology field in psychology in which authenticity is a character trait and marker of courage (Peterson & Seligman, 2004).

2.3.2 Defining and Distinguishing Authenticity

Definitions of authenticity emphasize that authenticity is multi-faceted and dynamic. Authenticity can be considered, like self-efficacy and self-esteem, as a component of the self, although one that by comparison has been largely understudied (George, 1998). One specific conceptualization of authenticity defines it as "the

unobstructed operation of one's true or core self in one's daily enterprise," and specifies four components: awareness, unbiased processing, action, and relational orientation (Goldman & Kernis, 2002, p.18). Goldman and Kernis developed the Authenticity Inventory (AI), a self-report measure of individual differences in authenticity. The AI is a 44-item scale composed of a 15-item awareness subscale, a 10-item unbiased processing subscale, a 13-item behavioral subscale, and a 6-item relational orientation subscale (see Goldman & Kernis, 2002). The first component in their conceptualization, awareness, suggests that one must have a sense of one's true self as a prerequisite to determining if one is being true to that self. The second component, unbiased processing, is objectively accepting both positive and negative features about oneself. The third component, action, is behavior that reflects one's own desires and beliefs rather than behaving to please others or avoid sanctions. The fourth component, relational orientation, is about authenticity, trust, and self-disclosure in personal relationships. Empirical findings based on that instrument will be described below.

More recently, Wood, Linley, Maltby, Baliousis, and Joseph (2008) introduced a new authenticity scale. Their scale includes three sub-scales representing self-alienation, authentic living, and accepting external influence. These distinct aspects of authenticity were expected based on their review of the literature and were confirmed through their factor-analyses. Self-alienation is defined as a sense of feeling disconnected from one's

true self. Authentic living captures more traditional views of authenticity, namely the extent to which people's behavior reflect their values and beliefs. The third factor, accepting external influence, includes items about the extent to which individuals are guided by and conform to the influence of others. The inclusion of the self-alienation and accepting external influence subscales suggests the relevance of the construct of impression management for understanding the role of authenticity in self-regulation. Empirical findings based on that instrument will be described below. Authenticity is conceptualized by Wood et al. (2008) as a dispositional aspect of an individual, a trait of personality. Such a dispositional approach to authenticity is productive in that it avoids the problem of having to define the nature of the true self, which Leary (2003, p. 53) described as "the bane of every theorist who has discussed the operation of the authentic self."

Authenticity needs to be distinguished from a number of related concepts, including sincerity, self-deception, impression management, affect regulation, self-monitoring, self-consciousness, self-consistency, and self-verification. Each of these concepts has the potential to influence ongoing processes of self-regulation.

Authenticity is distinguishable from these related concepts in its emphasis on reflecting the true self. As comparison to other concepts and review of the empirical literature

reveals, authenticity is both self- and other-oriented, is relevant across situations, and has trait-like characteristics.

Authenticity is most often confused with *sincerity*. The distinction between these constructs often centers on the point of reference: some scholars suggest that authenticity is self-referential, whereas sincerity is behavior in response to another person (Erickson, 1994, 1995), and thus is at stake in communication (Marková, 1997). But an individual can act authentically and yet behave in a way that feels insincere, or can act inauthentically but appear sincere to others. The idea that we can deceive ourselves has been studied primarily under the rubric of self-deception and has a long philosophical history (see for example Demos, 1960; Fingarette, 1998). Self-deception has been deemed an inhibitor of authenticity (Sartre as cited by Gecas & Burke, 1995). If sincerity is taken to be other-referential, and authenticity as both self- and other-referential, self-deception may be taken to reflect the converse of the self-referential aspects of authenticity. Without linking authenticity to theories of self-regulation that emphasize the role of social-cognitive processes, it is difficult to determine whether the source of motivation for an individual's behavior is a belief originating within the self or a perceived expectation on the part of another.

Authenticity also should not be confused with *impression management* or with *affect regulation* (also referred to as emotion management in related social science

disciplines). Authenticity and impression management are inarguably related constructs, and impression management is often considered the antithesis of being authentic. Impression management can be defined as the strategic presentation of self in order to elicit a desired response from others (see Leary & Kowalski, 1990, for a review). The term impression management carries negative connotations and misconceptions that have hampered research on the topic (Schlenker, 1980), and impression management often has been studied in regard to particular desired impressions (e.g., intelligence, Murphy, 2007). Yet impression management is a necessary component of social life and can be considered an indispensable skill to achieve social mobility and negotiate interactions in the social world. Interestingly, the view of impression management as a 'necessary evil' implies a 'true self' that needs to be submerged or masked in the course of social interaction. Impression management may include both impression-related motivations (the extent to which individuals desire to affect the impressions others hold of them) and impression construction (behavioral efforts to do so) (Leary & Kowalski, 1990). The work of Goldman and Kernis, as reflected in their four-component model of authenticity, suggests that the desire for authenticity may influence both impression motivations (attitudinal views and beliefs and goals) as well as behavioral choices (impression construction).

The means and motives of impression management have been addressed by a number of researchers. Roth, Snyder, and Pace (1986) described two tactics individuals can use for impression management. Specifically, individuals can deny negative characteristics or attribute positive characteristics to the self, and these tactics have been found to be independent processes. According to Leary (1996), individuals have three self-presentation or impression management choices when in a self-presentational dilemma: authentic self-presentation, defined as presentation of self that is consistent with private beliefs; deceptive presentation, defined as consciously projecting an image of self that is inconsistent with what one truly feels/believes; and evasive self-presentation, selectively withholding or managing presentation in a way that avoids having to be authentic or deceptive (Leary, 1996). Concern with the spirit of impression management is not a primary interest in existing definitions of authenticity, but surfaces in the work of Trilling (1971) and Erickson and Wharton (1997), and is most recently alluded to in the self-alienation and external influence subscales of Wood et al. (2008). Authenticity can be construed as an impression management strategy, but for purposes of linking authenticity with SDT and RFT, the intent of this paper, the focus is on authenticity more broadly, regardless of its motivations. The tactics of impression management identified above do not overlap conceptually with most working definitions of authenticity, for example that of Goldman and Kernis (2002) which

emphasizes not only whether behavior reflects one's true beliefs but also awareness of the true self, levels of self-assessment, and how individuals negotiate trust and self-disclosure in relationships. That framework and related conceptualizations of authenticity suggest that it may carry a unique motivational influence, distinct from solely the desire to control the impressions of others which is characteristic of impression management tactics.

Authenticity also needs to be distinguished from the concept of affect regulation. Authenticity and affect regulation are often confounded both conceptually and empirically (Vannini & Franzese, 2008). The view that authenticity is synonymous with affect regulation is evident in much of the early work on authenticity (e.g., Hochschild, 1983; Erickson & Wharton, 1997; Erickson & Ritter, 2001), which frames authenticity as whether or not one can display her/his true feelings. A recent ethnographic study on authenticity by Sloan (2007) conceptualizes emotion management as the precursor to experiences of authenticity or inauthenticity. Although this research makes important contributions, noting the feelings of inauthenticity that can result from emotional labor, more recent research on authenticity suggests that questions of authenticity are about more than emotion management and displays of feelings, beliefs, and other aspects of the self (e.g., Vannini, 2007). Authenticity, as a feeling, may also be experienced in response to noticing a self-discrepancy. As such, the experience of authenticity may

drive self-discrepancy reduction. In presenting a conceptual model of personal change, Kiecolt (1994) suggested that reduced sense of authenticity can provide the impetus to change one self. Although not framed as a model of self-regulation, changing oneself is engaging in a process of self-regulating, and this framework has self-regulatory features. According to Kiecolt's model, stressors and life events lead to diminished self-views which link to a reduced sense of authenticity. Akin to self-discrepancy theory, diminished self-views may be a sense that one has a self-discrepancy, such that one is not achieving the ideal or the ought self to which he or she strives. Both views are similar in that dissonance may serve as an impetus to self-change. In addition to triggering choices about self-change, a reduced sense of authenticity is hypothesized to directly lead to psychological distress, in much the same way that self-discrepancies are hypothesized to lead to psychological distress once activated. Suppressing both positive and negative emotions has clear physiological effects (Gross & Levenson, 1997). In relation to authenticity, such effects would only be expected to the extent that the suppression was inconsistent with feeling authentic. Authenticity is not the same as emotion management; it is both self-referential and relational. Affect regulation in the psychological literature denotes strategies to cope with and manage emotions. Managing emotion can be one component of experiences of inauthenticity, but the terms

affect regulation and emotion management should not be used synonymously with inauthenticity.

Many other aspects of self-related behavior (self-monitoring, self-consciousness, self-consistency and self-verification) are relevant to but distinct from authenticity. Substantial empirical literatures have been amassed on each of these constructs, which cannot be comprehensively reviewed within the scope of this document. Instead, I will briefly describe each research area, highlighting key research findings, and noting differences between that research area and what is known about authenticity.

Research on *self-monitoring* and *self-consciousness* suggests that there are individual differences in the extent to which individuals are aware of and monitor their self-presentations. Self-monitoring involves monitoring and altering one's behavior in an effort to control the ways that others perceive oneself (Snyder, 1974). Early research in this field suggested that low self-monitors have a lesser sensitivity to external influences than high self-monitors (see for example, Snyder and Monson, 1975; Kulik and Taylor, 1981). Since the introduction of the scale in the seventies, research on the topic has expanded considerably. Studies range from understanding the personality correlates of the construct (Furnham, 1989) to studies in which self-monitoring is included with authenticity related measures (for example, authentic leadership) as predictors (Tate, 2008). Self-monitoring has also been considered through the lens of a

control-process model suggesting that those high and low in self-monitoring distinctly engage in self-referent analysis, evaluation, and control (Hoyle & Sowards, 1993).

According to that framework, individuals who are low in self-monitoring prioritize personal standards over social standards. However, authenticity and self-monitoring are distinct in that self-monitoring, at least as defined by Snyder (1974), is exclusively other-referent and primarily behavioral whereas authenticity is conceptualized as a construct that influences and reflects both beliefs and behaviors and is relevant both socially and when one is alone. In addition, variability in preference for authenticity would not be expected to lead to favoring personal or social standards, as either predisposition could be reflective of one's values.

Research on self-consciousness includes both private self-consciousness and public self-consciousness. Privately self-conscious individuals rely more heavily on their personal identity and value autonomy (and are not merely socially oblivious), whereas publicly self-conscious individuals value conformity to a greater extent and emphasize social identity (Schlenker & Weigold, 1990). Publicly self-conscious individuals want to please an external audience, and privately self-conscious individuals are motivated by a desire to please themselves (Doherty & Schlenker, 1991). Although levels of self-consciousness influence presentations of self (Doherty & Schlenker, 1991)

and may provide important insights into the standards/goals people hold, self-consciousness is considered distinct from but potentially relevant to authenticity.

Research on *self-consistency* and *self-verification* examines the influence of self-conception and feedback from others on performance. The context of behavior (i.e., public or private) can determine whether self-consistency or self-enhancement is pursued (Schlenker, 1975). The extent to which feedback about the self is self-enhancing or self-consistent influences cognitive and affective responses to feedback about the self: cognitive responses are affected by how self-consistent the feedback is, and affective responses to feedback are influenced by how enhancing it is (Swann, Griffin, Predmore, & Gaines, 1987). Whether people seek self-enhancing or self-verifying feedback is more dependent on whether the topic at hand is their positive attributes or their negative attributes (Swann, Pelham, & Krull, 1989). The switch from desiring self-enhancement to self-verification can mark a developmental transition: the former is most important for dating couples and the latter for married individuals (Swann, De La Ronde, & Hixon, 1994). Self-esteem and characteristics of the situation are also associated with whether self-enhancement or self-protection is favored (Landau & Greenberg, 2006). Although self-consistency and self-verification theories have important implications for understanding self-regulation, their influence is expected to be distinct from that of authenticity. Those frameworks emphasize the feedback that we receive from others as

it shapes self-views and interactions, and the positivity or negativity of self-conceptions. Authenticity is not directly concerned with the valence of the self-conceptions or the way that others perceive us shapes our behavior, but rather is considered as a personal factor that influences the standards individuals hold and the extent to which individuals compare themselves to those standards.

After considering the relation between authenticity and this range of important social psychological constructs, authenticity itself may seem difficult to define. However, careful review of the concepts with which authenticity is most typically linked suggests some of its more self-evident and distinguishing features. In everyday use, authenticity is taken to mean a sense of genuineness and integrity, and a true representation of what one truly believes or feels. However, from a scholarly perspective, authenticity is not an objective evaluation that something is what it claims to be, but instead is subjective and experiential; a sense that one is being and displaying one's true self (Vannini, 2006). As noted above, the definition of authenticity proposed by Goldman and Kernis (2002) identifies four components of authenticity: awareness, unbiased processing, action, and relational orientation. A strength of this framework is that it acknowledges several important features of authenticity. Their scale, however, is not optimal for the kinds of research to be proposed subsequently, as it includes aspects of authenticity that may not be directly relevant to the self-regulation process

(particularly as postulated within SDT and RFT). Similarly, the Wood et al. (2008) scale includes three dimensions of authenticity: authentic living, self-alienation, and accepting external influence. That scale is quite similar to the scale that will be used in this study, with the exception that the current scale de-emphasizes self-alienation, which may be less relevant to the current study.

In terms of a working definition of authenticity, the present research will proceed on the premise that, broadly speaking, authenticity is an individual difference variable that has specific manifestations and influences how self-regulation operates. This view is consistent with the conceptualization of authenticity described by Wood et al. (2008). Authenticity is an aspect of identity emphasizing the idea of being true to oneself that influences how individuals think about themselves, their goals, and behaviors, and has the potential to influence those interactions. Authenticity specifically refers to stable attitudes and behaviors that the individual feels are genuine and true representations of their values and beliefs. Individual differences in authenticity therefore can be measured reliably using an instrument assessing times when one's attitudes and behavior are experienced as reflective of their true feelings and beliefs. Authenticity is conceptualized as distinct from the need for social approval, which specifically captures the extent to which an individual values attaining the approval of others. Although the need for social approval may be associated with authenticity, it is distinct from it. This

view of authenticity does not require that the question of whether there is a core or true self be answered, but rather proceeds on the premise that individuals vary in the extent to which authenticity influences their behavior. In summary, authenticity is conceptualized as a personality variable that influences behavior, yet also attitudes and worldviews. This research addresses self-report of individual differences in authentic behavior, which is one important way to operationalize and study authenticity.

2.3.3 Recent Evidence for Authenticity

Only a limited number of empirical studies have directly examined the construct of authenticity. However, this number has increased significantly in the last few years. The studies that do examine authenticity document the relevance of the construct and its implications. Compared to inauthenticity, authenticity has been largely understudied (Harter, 2005). However, as summarized above, there is a much larger literature on constructs related to authenticity (i.e. impression management, self-monitoring) which provides important insights into the conditions under which individuals are more or less likely to behave authentically. The scope of this document prohibits review of all literature which is compatible with the construct of authenticity. Studies that directly examine authenticity are reviewed in the following sections. The empirical research on authenticity provides important insights into its developmental basis, the factors that

influence and inhibit authenticity, its costs and benefits, and its relational and social aspects.

Questions of authenticity are most apparent when there is a seeming tension between authentic behavior and other behavioral choices (Mead 1964b [1913], as cited by Erickson, 1995; Goffman, 1959; Leary, 2003). Adolescence has been identified by Harter and colleagues as such a time and also has been identified as the age at which questions of authenticity become relevant. Through their studies on true-self and false-self behavior in adolescents and the development of multiple self-facets in adolescence, Harter and colleagues reported that the notion of false-self behavior becomes relevant at around the seventh grade level (Harter, Bresnick, Bouchey, & Whitesell, 1997). Harter, Marold, Whitesell, and Cobbs' (1996) framework of false-self behavior conceptualizes adolescents as not following (and so suppressing) the true self for a variety of reasons, including; uncertainly/dislike of the true self, impression management (as a means to garner social approval), and as part of role experimentation. The motivation for inauthentic behavior affects how the individual responds to behaving falsely: false behavior motivated by fear that other's won't like him or her, and uncertainty about or dislike of one's true self was associated with lower levels of wellbeing than false self behavior motivated by a desire to please others or false self behavior that is part of role experimentation (Harter et al., 1996). Adolescence, particularly between the ages of 14

and 18, is a critical time for the development of the ability to resist peer influence (Steinberg & Monahan, 2007) which can be considered as one aspect of psychosocial maturity (Steinberg, Cauffman, Woolard, Graham, & Banich, 2009). The ability to resist peer influence is likely a correlate of authenticity and the two may follow similar developmental trajectories.

Few researchers have explicitly studied how a sense of the true or authentic self develops. Although the research to be reported below is not explicitly developmental in design, a developmental perspective on authenticity is described here in order to provide a nuanced understanding of why authenticity may be important in the emergence of self-regulatory styles. Harter (2005), based on a review of the developmental and clinical literatures, suggested that research from developmental psychologists supports the role of parents in facilitating authentic self-views. Specifically, parents are believed to play a role in facilitating children's potential for authentic behavior through allowing their children to construct narratives of their experiences and by validating the children's self-constructed narratives. In addition, according to Harter's review, research from child-clinical psychology suggests the importance of validating the child's experience of the world as it reflects the child's views and beliefs and desires. In later childhood and adolescence, both parental and peer validation can influence the extent to which authenticity is internalized. It may be

expected that the extent to which the authentic self is validated can affect the likelihood that it becomes a self-standard. Interestingly, Harter provided suggestions for how to interact with children and adolescents when praising behavior, suggesting a statement such as “you must be very proud of yourself for what you did” rather than a statement praising the child for meeting the parent’s wishes. (p.391). The former suggested statement could also be interpreted as transmitting a ‘promotion’ message, supporting the authenticity/promotion link to be hypothesized in the following section of this paper. Regardless of the source of the ‘true self,’ authenticity can be considered as an aspect of personality. This is the claim of Wood et al. (2008), who examined associations between their authenticity scale and the NEO personality inventory of Costa & McCrae. They found that authenticity was associated with greater extraversion, agreeableness, conscientiousness and openness, as well as with lower neuroticism.

Empirical studies of authenticity have focused on the experiences of adolescents and young adults; few studies have addressed the developmental trajectory of authenticity among those older than early adulthood. Review of gerontology literature on wisdom and transcendence is compatible with the expectation of greater authenticity among older adults (see for example, Ardelt, 1997; Ryff, 1989, 1991). The sole empirical work known to this author that spoke explicitly to age differences in authenticity reported that older workers and those with children residing at home reported fewer

feelings of inauthenticity (Erickson and Wharton, 1997), and scholars have suggested the importance of considering authenticity with fluidity over the life course (Vannini, 2007). Using quantitative and qualitative methods, Franzese's sociology dissertation research (2007) studied reports of authenticity among young to middle-aged adults and older adults and observed higher levels of authentic behavior among older adults. In addition, interview respondents (of both age groups) reported an expectation that authenticity would increase in later life, particularly as they were freed from social responsibilities and expectations. Other demographic variables that have been linked to authenticity are gender and race. Associations between authenticity and authenticity-related constructs and gender and race are debated. Most scholars report no gender differences (Erickson & Wharton, 1997; Harter, Waters, Whitesell, & Kastelic, 1998), but gender role orientation may be relevant (Harter, Waters, and Whitesell, 1997). Sheldon, Ryan, Rawsthorne, and Ilardi (1997) observed that women report significantly higher authenticity in their roles than do men. This distinction, between gender and gender orientation, and addressing authenticity in specific roles, is potentially compatible with the findings of Franzese's dissertation which suggests that African-Americans and women have higher levels of authentic behavior than Caucasians and men, but that women are more conflicted about ideas of the true self than are men. That is, according to qualitative data, women value authenticity more than men but have a harder time

enacting authentic behavior. The gender, age, and race differences reported in this review are not included in the hypotheses of this paper.

The bulk of the empirical work on authenticity has focused on experiences of authenticity in the workplace, which has emphasized the experiences of women who are more predominantly the employees in the employment sectors studied. This line of research suggests that factors of social context may inhibit and/or facilitate authenticity, and the workplace context is often cited as an environment that inhibits authenticity. An outgrowth of the work of Hochschild on emotion labor (see for example *The Managed Heart*, 1983), this research explores the idea that certain occupations involve inauthenticity as a job requirement. Inauthenticity has been found to be positively associated with on-the job distress and even depression (Erickson and Wharton, 1997). More nuanced findings suggest that although managing agitation was associated with inauthenticity, management of negative emotions (i.e., sadness, guilt, etc) and management of positive emotions (i.e., happy, excited) were not associated with inauthenticity (Erickson and Ritter, 2001). The perceptions individuals hold of the authenticity of those in leadership positions in the work environment are correlated with the perceived organizational climate, a topic studied in the context of elementary schools (Hoy & Henderson, 1983). In a more recent workplace study, focusing on university professors, it is reported that teaching can indeed be a source of authenticity

for professors, but that professors may feel inauthentic as a result of both job demands and one's challenges in enacting the true self- behaving in alignment with their values (Vannini, 2006). Notably, this author suggests that authenticity and inauthenticity are not as rigidly determined by structural social forces as has previously been suggested (Vannini, 2006). These findings suggest that both the demands of employment and self-expectations about authenticity can inhibit authenticity. This attention to context is important: individuals can report experiences of both authenticity and inauthenticity in the workplace and experiences of authenticity and inauthenticity at home (Franzese, 2007). A sense of integrity in the workplace appears to hold great importance for the wellbeing of employees who are more senior in their careers (McGregor & Little, 1998). The findings about authenticity and workplace distress are relevant to the current paper because they provide a literature documenting authenticity as a predictor of distress.

Authenticity has been found to have both costs and benefits. One such positive correlate is *self-esteem*, a self-evaluative aspect of the self. The self-enhancing nature of authenticity has been both theoretically predicted (Gecas, 1991) and empirically examined. Most recently, Wood et al. (2008) reported positive correlations between authentic living and self-esteem, and negative correlations between self-alienation and self-esteem and between accepting external influence and self-esteem in multiple diverse community samples. Analyses based on a predominantly female sample of college

students indicated that authenticity is positively related to self-esteem and life satisfaction, and negatively related to self-esteem contingency (self-worth that is based on achieving certain goals) as well as negative affect (Goldman & Kernis, 2002). Positive associations between authenticity and self-esteem were also reported by other researchers. Adolescents reporting higher levels of true self behavior and a sense of knowing oneself as a person predicted higher self-esteem, hope for the future, and positive affect (Harter et al., 1996). This self-esteem finding has also been observed among adults (Franzese, 2007). Level of authenticity across various roles (student, employee, child, friend, romantic partner) is also positively correlated with self-esteem (Sheldon et al., 1997). The causal nature of the link between self-esteem and authenticity is not fully understood. Other positive correlates of authenticity are mindfulness (Lakey, Kernis, Heppner, & Lance, 2008), positive affect, and life satisfaction, which Wood et al. (2008) found to be positively correlated with authentic living and negatively correlated with accepting external influence and self-alienation across multiple community samples. A relevant question to consider is whether one needs to enact authenticity to gain the hypothesized benefits. That is, if individuals hold authenticity as a virtue about themselves but do not enact it behaviorally, will they still garner benefits? According to Harter (2005), authenticity can be divided into its functions of

owning one's beliefs, values, etc., and enacting those beliefs, so it is possible to make different predictions regarding this question.

The costs of being inauthentic have been more widely considered than the costs of being authentic—the authenticity/self-esteem research is the only line of psychological research addressing the benefits of authenticity. This may be a result of authenticity's consideration in the workplace literature which has focused on the negative experiences of workers who engage in affect regulation and impression management. Accounts of feeling authentic are described in ways that display positive mood and affect, and accounts of feeling inauthentic with more negative moods and affect (Turner & Billings, 1991). Authenticity scores were found to be negatively correlated with depression, suggesting that individuals with lower levels of authenticity report greater levels of depressive symptoms (Kernis and Goldman, 2005). Reports of authenticity across specific roles (student, employee, child, friend, romantic partner) were also found to be positively negatively correlated with levels of both depression and anxiety (Sheldon et al., 1997). Most recently, authenticity scores have been found to predict stress and negative affect, with authenticity being beneficial, (Wood et al., 2008), and authenticity has also been found to be negatively correlated with verbal defensiveness (Lakey et al., 2008). In addition, individuals with higher authenticity were found to have lower need for social approval (Franzese, 2007), a finding that echoes the

conceptualization of Harter and colleagues (2006) that adolescents engage in authenticity to gain approval out of fear that the true self will be disapproved. It is unclear whether high need for social approval fosters lower authenticity or individuals who report low authenticity may seek social approval as a means of self-comfort.

An easily overlooked disadvantage of inauthenticity comes in the form of *opportunity costs*. Research shows that when individuals are rewarded for inauthentic presentation of self, the reward does not benefit self-esteem (Hussain & Langer, 2003). These authors studied the effects of the opportunity costs of pretending on self-esteem and suggested that when we pretend and are acclaimed, it is actually counter-productive because we will be unable to internalize that praise. Authenticity may also involve social costs; that is, individuals behaving authentically in social settings that demand a certain self-presentation may receive negative social sanctions if the individual's authentic behavior is at odds with the expected behavior (Franzese, 2007). In tandem, these studies suggest that inauthenticity may have direct costs and opportunity costs, in that people who either ignore their natural inclinations or even more actively inhibit themselves may deny themselves benefits of positive responses to displays of one's genuine nature.

Authenticity has relational aspects, an idea evident in Goldman and Kernis' (2002) framework. Knowledge about one's true self has been said to emerge through

relational connections with others (see Harter, 2005, for a review). However, whether authenticity is something one values only in oneself and/or close others or whether it is valued more broadly is largely unknown. The potential social valuing of authenticity is evident in the way that adolescents report wrestling with the idea that authenticity is a valued aspiration (Harter, 2005) and has emerged as socially valued in the words of interviewees (Franzese, 2007). Even styles of conflict resolution may feel more or less authentic. Neff and Harter (2002) observed that the other-oriented approach often adopted by women in conflicts with relationship partners was not experienced by those women as authentic but instead was done to avoid further conflict. A specific measure of authenticity in the context of relationships, the *Authenticity in Relationships Scale* (AIRS, Lopez & Rice, 2006), has been developed and promises to be an important contribution to the field. In their 2008 study, Wood et al. reported that authentic living is positively correlated with positive relations with others and other markers of psychological well-being. Authenticity may be associated with both how we relate to others (as Wood et al. 2008 demonstrated) and the 'amount' of authenticity in a given relationship. Authenticity appears to have broad relevance, yet also appears to differ across individuals and also cultures (see Peterson & Seligman, 2004 for review).

In sum, authenticity has costs and benefits and is associated with both well-being and distress (and even, in some instances, with dysphoric symptomatology). The

construct has relational importance, but it ultimately subjective and experiential. In the following section of this paper, I outline the implications of authenticity for the standards and self-guides that individuals hold, for the extent to which individuals engage in the comparative process which is at the crux of self-regulation, and for the affective consequences of self-discrepancies. I then describe the research protocol I used to empirically investigate the proposed linkages.

3. Linking Authenticity with SDT and RFT

Having distinguished authenticity from other social-psychological constructs, laid out a working definition of authenticity, and reviewed recent empirical studies of authenticity, I will now present the thesis of this dissertation: that authenticity is a critical and neglected moderator between the ongoing self-regulatory processes postulated by SDT and RFT and the motivational and affective consequences of self-regulation predicted by each theory. Authenticity, in this work and previous work (e.g., Wood et al., 2008) is conceptualized as a disposition or trait, an aspect of personality whose variability influences the process and outcome of self-regulation. Authenticity has been addressed, historically, as most relevant in situations in which it is potentially in conflict with other motivations – for example, a desire for social approval, or the desire to attain a certain positive end-state or avoid a certain negative end-state. This section (1) describes hypothesized motivational implications of authenticity for the process of self-regulation as postulated in SDT and RFT, (2) describes hypothesized affective implications of authenticity for the process of self-regulation in SDT and RFT, (3) proposes a series of hypotheses regarding individual differences in authenticity as a moderator of the process of self-regulation described within SDT and RFT, and (4) presents potential research designs to test those hypotheses

3.1 Implications of Authenticity for Standards and Goals

SDT and RFT address the goals and standards that provide motivational impetus for the person, highlighting how individuals engage in an ongoing evaluative process in which the current self is compared to personally significant goals or standards. The primary thesis of this paper is that authenticity, as an individual difference variable, moderates the self-regulation process. Specifically, I expect that individuals with higher authenticity have fewer self-discrepancies. I also expect that among individuals with higher authenticity, self-discrepancies will be more distressing, as described in the following section on authenticity's implications for the affective consequences of self-discrepancies. This hypothesized association between authenticity and self-discrepancies can occur in at least two ways. First, individuals who highly value authenticity may regulate preferentially toward self-guides that are considered to be part of their authentic selves. That is, the more that an individual values authenticity, the greater the likelihood that the self-guides and/or goals toward which they strive are already seen as authentic. The self-guides held by individuals who are high in authenticity would tend to match the actual self attributes, so that such individuals would tend to manifest less self-discrepancy. That is, individuals who consider themselves to be highly authentic may be less likely to possess highly accessible alternative behaviors or attributes that differ from their description of their actual self.

Alternatively, it may be the case that given the social/situational contingencies that may inhibit the enactment of authenticity, highly authentic people would have more self-discrepancies. However, this possibility is considered less likely given that high authenticity individuals are expected to be particularly committed to pursuing a coherent and consistent self. Second, individuals who value authenticity also may engage in the process of comparing their actual behavior and attributes to salient goals or standards to a lesser extent. Again, it may be argued that the alternative could be true. The two possibilities expected represent two separate predictions, but they are not mutually exclusive. The first possibility suggests that individuals high in authenticity will tend to possess self-guides that largely match how they really are. The second predicts that individuals who are high in authenticity will engage less frequently in the comparative process that characterizes ongoing self-regulation. The second possibility can not be directly measured in the current research. However, in both instances, the net result would be fewer self-discrepancies. Thus, the influence of authenticity on motivation in self-regulation can come in two forms: both through influence on content of the self-guides/goals individuals hold and the magnitude of discrepancy, and through influence on the self-evaluation process that is at the core of self-regulation.

Much of the research on self-regulation has focused on the 'second half' of the self-regulatory process, where a discrepancy become salient and individuals alter either

their behavior or the environment to reduce the perceived discrepancy (Karoly, 1993). However, the intersection of authenticity and self-regulation comes, in part, through authenticity's influence on the standards individuals hold. I expect that the extent to which individuals report authenticity influences the self-guides or standards toward which they regulate their behavior. One way to test this prediction is by examining the extent to which the standards individuals possess invoke the concept of authenticity. For example, terms like *genuine*, *honest*, *real*, and *true* all invoke a sense of authenticity.

An additional linkage between authenticity and people's self-guides comes in the form of their concurrent developmental trajectories. As previously stated, the research reported below does not address developmental hypotheses. However, the developmental linkages are important to consider in understanding why authenticity may be important in the development of self-regulatory orientations. A distinguishing feature of RFT is its developmental foundation, and the empirical research demonstrates the influence of parental socialization on regulatory styles (Manian, Papadakis, Strauman, & Essex, 2006). Specifically, the nature of child-caretaker interactions is linked to the regulatory focus imparted to the child. Encouraging and rewarding children for behaving in a desired manner – what Higgins & Silberman referred to as *bolstering* – could facilitate a promotion focus, whereas emphasizing behaviors or activities to be avoided, the *prudent* mode, reflects the facilitation of a prevention focus

(Higgins & Silberman, 1998). It seems possible that authenticity could potentially be socialized by either bolstering or by prudence but seems more compatible with a bolstering approach, especially if authenticity is believed to require openness, a known correlate of authenticity in the empirical literature (Wood et al., 2008). These socialization processes would depend on the extent to which the parents consider authenticity desirable. Authenticity is known to be socialized by parents as well (see Harter, 2005 for review). Based on those bodies of research, it seems that the kinds of parenting practices that emphasize growth and advancement that might facilitate a promotion view in a child are the same as those that would support a valuing of authenticity. Drawing upon this potential linkage, and within the context of cross-sectional data, it is proposed that high levels of authenticity predict promotion orientation, specifically promotion success. Promotion history, which reflects the ways in which children are socialized towards promotional goals, is hypothesized to predict higher levels of authenticity.

An alternative hypothesis, and one that is supported by some life-span research, offers the opposite view – that among individuals who consider authenticity as a moral quality or have firm views about integrity and ethics, authenticity is more likely to be associated with oughts and a prevention focus. This can be explored by comparing the associations among levels of authenticity and the likelihood of highly accessible

authenticity-related ideal self-guides and highly accessible authenticity-related ought self-guides. In addition, the expanding empirical research about the personality correlates of authenticity, for example, its positive associations with extraversion and openness, suggestive of a proactive, making-things-happen framework, provide additional support for a view that high authenticity and promotion may be linked. This potential developmental linkage will be evaluated by examining the associations among authenticity scores, regulatory focus history, and current regulatory style, and can also be addressed by examining whether individuals who are more authentic predominantly favor ideal self-guides over ought self-guides. However, specific developmental hypotheses cannot be explored within the cross-sectional study designs described in this paper.

3.2 Implications of Authenticity for Affect

In this section I focus on linking authenticity with conceptualizations of the affective consequences of self-regulation as predicted by SDT and RFT. SDT makes specific predictions about the outcome of discrepancies between the actual and ideal self, and the actual and ought self. It is proposed that authenticity moderates that process, interacting with the discrepancy to predict the affective outcome of the ongoing self-regulation process. However, the main effect predictions are described first, prior to the interactive predictions. Predictions are made for the moderating influence of

authenticity on both acute and chronic affective outcomes. In terms of a main effect of authenticity, individuals with higher levels of authenticity are expected to report lower chronic levels of non-clinical depressive and anxious symptomatology as well as lower levels of acute negative affect (dejection and agitation). This prediction is consistent with the literature reviewed earlier reporting that emotional labor and management is associated with feelings of inauthenticity, and subsequently psychological discomfort on-the-job (see for example, Erickson & Wharton, 1997) and negative psychological affect more broadly (Kernis and Goldman, 2005; Wood et al., 2008) .

Authenticity is expected to moderate the influence of self-discrepancies on dysphoric and anxious affect. This is expected to occur in different ways for acute versus chronic affect. For chronic affect, it is expected that the amount of discrepancy required to produce negative affect (i.e., the threshold of discrepancy) is lower than for individuals with lower levels of authenticity. This is expected because individuals high in authenticity may be motivated to notice even the smallest discrepancies and will therefore experience negative affect more intensely. For acute affect, it is expected that for individuals high in authenticity, when discrepancies are activated that the self-discrepancy will be more acutely distressing than for individuals who are lower in authenticity. That expectation addresses the severity of the response – the degree of

change in affect observed pre- and post- activation². It may be the case that when individuals who value authenticity compare themselves to a self-guide and perceive incongruence, feelings of inauthenticity may be experienced, which themselves may be distressing. The first hypothesis could be assessed through survey data measuring chronic dysphoric and anxious affect, and the second hypothesis could be assessed through experimental manipulation in which self-discrepancies are activated and pre- and post-activation mood is measured. In a survey design, affect would need to be measured prior to self-guides to ensure that self-discrepancies have not been activated through the process of describing the actual self and ideal and ought self-guides.

The critical distinction between the influence of authenticity on chronic and acute affective outcomes is related to the accessibility of self-guides and self-discrepancies. Self-discrepancies lead to psychological distress when they are activated or accessible. The threshold effect is germane to chronic affect in which activation is less relevant whereas the severity effect is linked to acute affect in the moment of discrepancy activation. This level of activation will only occur in the acute distress design component of this study (Study 2).

The moderating effect of authenticity that is predicted for chronic distress is expected based on the postulate that individuals who value authenticity will manifest

² Of course, activation reflects accessibility and as such, can include awareness, but awareness is not a requirement of construct activation.

fewer self-discrepancies (either due to the nature of the standards they hold or due to their lesser involvement in self-regulation), which in turn will be associated with lower levels of depressive and anxious symptomatology. Individuals self-regulate to diminish discrepancies between the actual self and their other self-guides; individuals high in authenticity are expected to have fewer self-discrepancies to diminish. A finding of lower levels of self-discrepancy (and subsequently lower levels of chronic and acute dysphoric and/or anxious affect) among individuals who are high in authenticity would suggest that part of being authentic is feeling like one is being one's true self, and not experiencing self-discrepancies between who one is and who one feels they want to or should be. The suggestion that being authentic is associated with fewer self-discrepancies at first appears to stand in contrast to Kernis and Goldman (2006), who link the awareness aspect of their formulation of authenticity as a cost of authenticity through its contribution to self-discrepancies. However, the postulate that self-discrepancies are more acutely distressing to individuals high in authenticity (due, perhaps to their increased awareness of the true self) is compatible with their claim. That is, self-awareness may bring to one's consciousness a sense that he or she is not meeting one's goals and is not behaving in ways that match one's self-view. That awareness itself may be distressing. For individuals with greater authenticity, the discrepancy may activate feelings of inauthenticity which in turn lead to the affective

consequences. Individuals who are lower in authenticity may lack such self-awareness, and/or may be disturbed to a lesser extent from such an insight. In the following section, I summarize the research questions that emerge from the previous review, and describe the empirical methods I used to examine those research questions.

3.3 Overview of the Research Design

A combination of research designs was required to examine the following research questions thoroughly: (1) Do individuals who are higher in authenticity generate as many self-guides as individuals lower in authenticity, and are the terms that are generated by individuals high in authenticity more likely to invoke the concept of authenticity (i.e., honest, genuine)? (2) Is authenticity linked with regulatory orientation, both in terms of socialization history and perceived success? (3) Do individuals high in authenticity manifest lesser self-discrepancies? (4) Do individuals high in authenticity report less chronic dysphoric or anxious affect, and does authenticity moderate the influence of self-discrepancies on chronic dysphoric and anxious affect? and (5) Do high and low authenticity individuals respond similarly when self-discrepancies are primed, and does authenticity moderate the influence of activated self-discrepancies on acute dysphoric and anxious affect? These five research questions were addressed in two studies using a combination of quantitative, experimental methods.

The potential links between authenticity and self-regulation identified in previous sections suggest a number of specific hypotheses. These hypotheses were tested in two studies, incorporating quantitative survey data in which respondents completed measures of self-discrepancy, regulatory focus, affect, and authenticity (Study 1), and experimental data in which individuals completed a computerized assessment of self-guides and perceived progress in self-regulation followed by assessment of negative affect, which was then considered in relation to individual differences in authenticity (Study 2). Study 1, a cross-sectional survey design, included measures of authenticity, self-guides, self-discrepancies, regulatory orientation, and chronic levels of depressive and anxious symptomatology. Participants were community members. Portions of the data collected in the first study have been presented previously, but the hypotheses being tested in the present manuscript are distinct from those that were tested by Franzese (2007).

Study 2, a combination of survey and experimental methods assessed authenticity, self-guides, self-discrepancies, and acute levels of dysphoric and anxious affect measured both before and after self-discrepancies were activated. Participants included undergraduate students, graduate students, and community members who were registered with a university-sponsored social psychology center. For both studies, multiple linear regression models were the primary statistical methods used to test the

hypotheses of interest. Study 1 is presented in Part IV of this dissertation and Study 2 in Part V. The dissertation concludes with a discussion section that integrates the findings of these two distinct studies.

4. Study 1

This study addressed the cross-sectional associations among authenticity, regulatory focus, and self-discrepancy. Prior to conducting the analyses, power analysis was performed to estimate the statistical power to detect the hypothesized associations that was available within the actual sample size.

4.1 Power Analysis

Power estimates for the ordinary least squares multiple regression models tested were based on power tables provided in Cohen (1988). Because certain models included up to ten predictors, power estimates were based on 190 independent observations. Table 1 below reports power estimates for main effects in the proposed regression models ($N = 200$, $\alpha = .05$, 2-tailed test). Operational definitions of small, medium, and large effects were based on effect size magnitudes given in Cohen (1988). The first row of the table reports power estimates for models involving main effects only.

Table 1: Power Estimates for Proposed Regression Models

	STANDARDIZED DIFFERENCE			MINIMUM DETECTABLE DIFFERENCE W/POWER =.80
	Small (.20)	Medium (.40)	Large (.80)	
MAIN EFFECTS	.28	.93	>.99	.41
INTERACTIONS	.10	.41	.80	.80

For each outcome, there was enough statistical power to detect 'standardized' differences (mean differences measured in standard deviation units) of .41 with power equal to .80. Effects of this magnitude are considered "small to medium-sized" (Cohen, 1988). Power estimates for interaction effects were adjusted based on the degree to which standard errors would be inflated assuming the sample would be evenly divided across two levels of a potential interactive variable (e.g., age group). As indicated in the second row of the table, the analyses were slightly underpowered for some interaction effects. Statistical power reached .80 only for large effects (difference =

.80). Interactions where the split was uneven across a potential modifier or those involving more than two groups would have slightly less power. Thus, the sample size provided sufficient power to detect small to medium main effects but slightly less power to detect small to medium interaction effects.

4.2 Participants

The sample included 200 participants and was diverse in terms of gender, race/ethnicity, and educational and marital status. Participants were recruited in two ways. One method was through advertising in a campus publication targeting participants ages 25-40. A second method targeted older adult participants who were recruited through participation in a research registry coordinated through the Aging Center at a local university. The 138 individuals who responded to the advertisement in the campus publication or heard about the study were mailed questionnaire packets, and 109 (79.0%) provided suitable response packets, prior to exclusion for missing data. One hundred and twenty five randomly selected individuals from the Aging Center registry were contacted and invited to participate. Of those, twelve were ineligible for participation, and 91 of the 113 that were eligible to participate (80.5%) provided suitable response packets, prior to the exclusion for missing data¹. Potential participants were mailed questionnaire packets along with \$5 which was theirs to keep regardless of study

¹ Means were imputed for individuals missing only a single or negligible number of items on a given scale.

participation. Consent forms were mailed along with questionnaire packets, and respondents returned the signed consent forms with their questionnaire packets. The analyses in Study 1 varied in sample size due to the incidence of incomplete data on the self-discrepancy measure. Descriptive statistics for the entire sample and for the subsample with complete and valid self-discrepancy data are presented in Tables 2 and 3 below, and Table 4 compares these two samples. Sample sizes are included for each table presented in this section to clarify whether the full or partial sample was used for each individual analysis.

4.3 Measures

Respondents were asked to complete the following measures:

Regulatory Focus Questionnaire (RFQ; Shah & Higgins, 1997). The RFQ is a 26-item questionnaire that includes history and success (or 'pride') subscales for both promotion and prevention orientations. History scales reflect socialization towards prevention and promotion goals, and success scales measure individuals' perceived success pursuing each type of goal. The items reflect individual differences in strength of orientation toward the two types of goals. Respondents are asked to rate a series of statements on a scale from 1 (*certainly false*) to 5 (*certainly true*) for the history scales, and from 1 (*never or seldom*) to 5 (*always*) for the success scales. The scale has good internal consistency properties (Chronbach's $\alpha = .73$ for prevention pride, and $\alpha = .80$ for

promotion pride, Higgins et al., 2001). Published psychometric information is only available for the subscales reported.

Selves Questionnaire (Higgins, Klein, & Strauman, 1985). The SQ asks each respondent to list up to ten attributes s/he feels s/he actually possesses, up to ten attributes that s/he would *ideally* like to possess, and up to ten attributes that s/he feels s/he *ought* to possess. In addition, participants are asked to rate the extent to which they actually possess, or would like to possess, the given attribute on a scale from 1 (*slightly*) to 4 (*extremely*). The scale has good test-retest reliability (AO and AI combined, $r(45) = .56$, $p < .005$, Strauman, 1996). Discrepancy scores were calculated by coding the Selves questionnaires, following the procedure outlined by Higgins, Bond, Klein & Strauman (1986) and used in later studies (for example, Strauman et al., 1993). This entailed a two-stage process. In the first stage, two raters independently classified each attribute in each participant's ideal and ought self-states according to its relation to the attributes in the actual state. Self-guide attributes were classified as matches (synonymous with an actual attribute), mismatches (antonymous with an actual attribute), or nonmatches (neither synonymous nor antonymous with any actual attribute). Matches and mismatches were considered according to the use of a thesaurus. The second component of scoring required the two independent raters to quantify the magnitude of discrepancy. Self-discrepancy was quantified as the number of antonymous mismatches

(weighted by a factor of two) and degree mismatches (weighted as one), minus the number of matches. Mismatches of degree resulted when an actual self and self-guide attribute were synonymous but differed in extent rating by more than 1 point. Nonmatches were excluded from the calculations. The author reviewed all questionnaires for accuracy and consulted with an expert coder when additional consultation was required. Interrater reliability (intra-class correlation) combined across the AI and AO scores was quite high, and ranged from .75 to .92 for all correlations (author/coder 1, author/coder 2, author1/author2) for total actual:ideal discrepancy scores and total actual:ought discrepancy scores. The three sets of scores for the ideal measure had an alpha of .95 and an average interitem covariance score of 7.28. The three sets of scores for the ought measure had and alphas of .92 and an average interitem covariance of .92. Ultimately, the scoring of the author was used in these analyses.

Authenticity Scale (Franzese, 2007). The authenticity scale is a twenty-three item measure. Respondents are asked to indicate the extent to which they disagree or agree with items on a scale from 1 to 4. Items on this scale were drawn from the Martin-Larsen Approval Motivation Scale (Revised MLAM, 1984), Snyder's Self-Monitoring Scale (SMS, 1974), and items from Goldman and Kernis' Authenticity Inventory (2002). The items reflect both situations in which socially approved behavior is selected over authentic behavior, and situations in which authentic behavior is selected over socially

approved behavior. Eighteen items are reverse-coded so that higher scores indicate greater levels of authentic behavior. The 23-item authenticity measure has an internal consistency (coefficient alpha) of .85 (Franzese, 2007). A shorter, 16-item version of the scale, based on factor analysis, includes three sub-scales (congeniality, instrumental gains, and integrity) and has an internal consistency (coefficient alpha) of .83 (Franzese, 2007). Higher scores on the authenticity scale indicate greater levels of authentic behavior. Scores on the shorter authenticity scale could range from 16-64.

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report questionnaire in which respondents are asked to rate a series of statements on a scale from 1 (*rarely or none of the time*) to 4 (*most or all of the time*). The items require participants to identify how often they have experienced a certain feeling or behaved in a certain way during the past week. The items reflect a participant's general level of depression or dysphoria and the scale has high internal consistency (Cronbach's $\alpha = .85$ for non-clinical samples).

Beck Anxiety Inventory (BAI; Beck, Epstein, Brown & Steer, 1988). The BAI is a 21-item questionnaire in which respondents are asked to rate a series of statements on a scale from 0 (*not at all*) to 4 (*severely - I could barely stand it*). The items require participants to identify how often they have experienced a certain feeling during the past week, including the current day. The items reflect a participant's general level of

anxiety and have high internal consistency (Cronbach's $\alpha = .92$, outpatient sample, Beck, Epstein, Brown & Steer, 1988).

Self-esteem and need for social approval were included as control variables and were assessed with the following instruments:

Rosenberg Self-Esteem Scale (RSE, Rosenberg, 1965). The RSE is a 10-item questionnaire in which respondents are asked to rate a series of statements on scale from *strongly Disagree* to *Disagree*. Scale items ask participants to gauge self-views. Five items are reverse coded. The scale has high internal consistency (Cronbach's $\alpha = .77$; Rosenberg, 1965).

Need for Social Approval Scale (Franzese, 2007). The need for social approval instrument used in this study was a ten-item measure. Respondents were asked to indicate the extent to which they disagreed or agreed with items on a scale from 1 to 4. Items on this instrument were taken from the SMS (1974), the MLAM (revised, 1984), and from Goldman and Kernis' (2002) authenticity inventory. The items reflect situations which assess the extent to which individual behavior would be motivated by a desire to garner the approval of others. Five of the items are reverse coded so that higher scores indicate higher levels of need for social approval. The measure has an internal consistency (coefficient alpha) of .52 (Franzese, 2007). A shorter, 7-item version of the

scale, based on factor analysis, had two components and an internal consistency of .57 (Franzese, 2007). Scores on this shorter scale could range from 7-28.

4.4 Hypotheses

The hypotheses are described in two sections below. The first set of hypotheses addressed discriminant associations among authenticity, regulatory orientation, and magnitude/type of self-discrepancy. Hypotheses 1A and 1B addressed levels of authenticity and the number and content of accessible self-guides:

- Hypothesis 1A: Authenticity scores will significantly predict the number of self-guides that participants generated. Specifically, higher authenticity scores will predict lower numbers of ideal and ought guides.
- Hypothesis 1B: Authenticity scores will significantly predict the content of self-guides. Higher authenticity scores will be associated with greater numbers of self-guides reflecting attributes related to integrity, honesty and genuineness.

Hypotheses 2A, 2B and 2C addressed associations among authenticity, actual:ideal self-discrepancy, and promotion orientation.

- Hypothesis 2A: Authenticity scores will significantly predict magnitude of actual:ideal discrepancy, with higher authenticity scores associated with lower levels of actual:ideal self-discrepancy.

- Hypothesis 2B: Promotion history scores will significantly predict authenticity. Higher scores on promotion history will predict higher levels of authenticity.
- Hypothesis 2C: Authenticity scores, in turn, will significantly predict promotion success scores. Higher scores on authenticity will predict higher values on the promotion success subscales.

Hypotheses 3A, 3B, and 3C addressed associations among authenticity, actual:ought self-discrepancy, and prevention orientation:

- Hypothesis 3A: Authenticity scores will significantly predict actual:ought discrepancy, with higher authenticity scores associated with lower levels of actual:ought self-discrepancy.
- Hypothesis 3B: Prevention history scores will significantly predict authenticity. Higher scores on prevention history will predict higher levels of authenticity.
- Hypothesis 3C: Authenticity scores, in turn, will significantly predict prevention success scores. Higher scores on authenticity will predict lower values on the prevention success subscales.

Hypothesis 4 addressed associations between authenticity and depressive and anxious symptomatology:

- Hypothesis 4: Authenticity scores will significantly predict depressive and anxious symptomatology. Specifically, higher levels of authenticity will be associated with lower levels of depressive and anxious symptomatology.

Each of these hypotheses was tested through a series of multiple regression models.

The second set of hypotheses proposed that authenticity would moderate the influence of self-discrepancies on affective outcomes of the self-regulation process. Separate authenticity X self-discrepancy (actual:ideal and actual:ought) interaction terms were used to test for moderator effects.

- Hypothesis 5: authenticity will moderate the association between self-discrepancies and chronic negative affect. Specifically, individuals with higher levels of authenticity will have lower magnitude of self-discrepancy on average compared to lower-authenticity individuals but the same magnitude of self-discrepancy will be associated with greater distress among the high-authenticity participants compared to the low-authenticity participants.

4.5 Results

Hypotheses 1A, 1B, 2A, 3A and 5 included items from the Selves Questionnaire. Complete data on the Selves questionnaire was available only for a subset of participants. Descriptive statistics for that sub-sample are included in Table 2. The

larger sample used to test Hypotheses 2B, 2C, 3B, 3C, and 4 is described below in Table 3. The sample size of 135 participants presented in Table 2 excludes individuals who were missing data on the self-discrepancy questionnaire as well as participants excluded for missing data on various study variables, specifically individuals who were missing data on three-fourths or all regulatory focus items on a given regulatory focus scale, all self-esteem items, and/or all NSA items. To be considered as having complete self-discrepancy data, participants had to provide at least three actual self attributes, three ideal self-guides, and three ought self-guides. The first sub-sample (n=135) was predominantly female (n=78), had an age range of 24 to 84, and was composed primarily of Whites (n=95) with lesser representation of Blacks (n=40).

Table 2: Descriptive Statistics for Participants for Hypotheses 1A, 1B, 2A, 3A, & 5

(N=135)

	M	<u>SD</u>	Range	Percent
Age (years)	46.3	<u>20.7</u>	24-84	
Younger adults (n=86)	31.3	<u>5.6</u>	24-44	63.7
Older adults (n=50)	72.7	<u>5.5</u>	63-84	36.3
Gender				
Male (n=57)				42.2
Female (n=78)				58.0
Ethnicity				
White (n=95)				70.4
Black (n=40)				29.6
Prevention History	31.9	<u>5.9</u>	13-40	
Prevention Success	19.5	<u>3.8</u>	10-28	
Promotion History	21.9	<u>5.6</u>	7-30	
Promotion Success	21.3	<u>3.0</u>	11-28	

Note: Scores on prevention history can range from 8-40, and scores on prevention success, promotion history and promotion success could range from 6-30.

Hypotheses 2B, 3B, and 4 were tested in a larger sample of 191 participants which included all of the 138 participants described in Table 2 above and others. Descriptive statistics for the sample of 191 participants considered in those analyses are included below in Table 3. The sample used in the analysis was predominantly female (n=116), had an age range of 24 to 84 years, and was composed of Whites (n=126) and Blacks (n=65). The sample size described in Table 3 excludes individuals previously excluded except those missing data only on the Selves questionnaire.

**Table 3: Descriptive Statistics for Participants for Hypotheses 2B, 3B, & 4
(N=191)**

	M	<u>SD</u>	Range	Percent
Age (years)	29.8	<u>20.6</u>	24-84	
Younger adults (n=107)	32.4	<u>6.3</u>	24-53	56.0
Older adults (n=84)	72.1	<u>5.7</u>	63-84	44.0
Gender				
Male (n=75)				39.3
Female (n=116)				60.7
Ethnicity				
White (n=126)				66.0
Black (n=65)				34.0
Promotion History	22.0	<u>5.4</u>	7-30	
Promotion Success	21.2	<u>3.0</u>	11-28	
Prevention History	32.3	<u>5.6</u>	13-40	
Prevention Success	19.5	<u>3.7</u>	10-29	

Note: Scores on prevention history can range from 8-40, and scores on prevention success, promotion history and promotion success could range from 6-30.

The two samples were quite similar in terms of demographic variables, but did have some significant differences. Independent t-tests were used to test whether individuals who did not provide complete data on the Selves Questionnaire (n=56)

differed in important ways from those who did. Specifically, scores on authenticity, depression, anxiety, self-esteem, need for social approval, prevention, and promotion were tested. Individuals who did not provide complete data on the SQ had significantly higher authenticity scores and significantly lower need for social approval scores, but did not differ significantly from other participants on any of the other measures listed. These scores are reported in Table 4. The statistical test used violated the assumption of homoscedasticity, but, it is expected that the test was robust to the violation. The significant differences observed may have biased the results of the analyses that included only the 135 participants, perhaps making them a more conservative estimate of the expected relationships. Specific scores for each sample are reported in Table 4, and the significant difference on the authenticity measure is denoted with an asterisk ($p < .05$).

Table 4: Comparison of Individuals with Missing & Complete Data on the Selves Questionnaire.

	M	<u>SD</u>
Authenticity*		
Missing SD data (n=56)	47.5	<u>0.8</u>
Complete Data (n=135)	45.3	<u>0.5</u>
Depression		
Missing SD data (n=56)	30.1	<u>1.2</u>
Complete Data (n=135)	31.9	<u>0.9</u>
Anxiety		
Missing SD data (n=56)	27.4	<u>1.1</u>
Complete Data (n=135)	28.9	<u>0.7</u>
Prevention		
Missing SD data (n=56)	33.4	<u>0.6</u>
Complete Data (n=135)	51.5	<u>0.6</u>
Promotion		
Missing SD data (n=56)	43.2	<u>0.9</u>
Complete Data (n=135)	43.3	<u>0.62</u>

4.5.1 Correlations

Table 5 displays Pearson correlation coefficients among the study variables; those with p-values less than .05 were considered statistically significant for the sample of 191. The main variables of regulatory focus variables and authenticity were all positively correlated with the exception of prevention history. The correlations were stronger for the associations between the success variables and authenticity. The strongest correlation among those was between promotion success and authenticity ($r = .26$), followed by prevention success and authenticity ($r = .20$), and finally promotion history and authenticity ($r = .17$). The positive correlations suggest that higher levels of these regulatory styles were associated with higher authenticity. Two of the control variables used in this study (self-esteem and need for social approval) had significant correlations with authenticity; however, the magnitudes of the correlations were still sufficiently modest to ensure that these are not the same construct. Self-esteem was significantly and positively correlated with all four regulatory scales, and need for social approval significantly and negatively correlated with all scales (with the exception of promotion history, and only marginally significant with prevention history and prevention success).

In terms of the demographic variables, promotion history had a significant correlation with education (positive), and promotion success with age (negative) and

education (positive). Prevention history had a significant correlation with being White (negative), and prevention success was positively correlated with both age and education. Correlations among the demographic variables themselves reveal that age was not significantly correlated with any of the other demographic variables, while gender had small but highly significant correlations with education ($r = .19, p < .01$) with men reporting higher levels of education, and being married ($r = .26, p < .001$), as well as a marginally significant correlation between being male and being White. Race was significantly correlated with educational level and marital status. Positive correlations were observed between being White and having higher levels of education ($r = .20, p < .01$) and being married ($r = .15, p < .05$). Education also was positively correlated with being married ($r = .19, p < .01$). There were a number of significant and marginally significant associations between the demographic variables, self-esteem, need for social approval and authenticity reported in Table 5.

Table 5: Correlations between Demographics, Regulatory Orientations, and Authenticity (N=191)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Age	–											
2. Male	.00	–										
3. White	.05	.13 [†]	–									
4. Married	.10	.26 ^{***}	.15 [*]	–								
5. Education	-.02	.19 ^{**}	.20 ^{**}	.19 ^{**}	–							
6. Self-Esteem	.13 [†]	-.04	-.09	.03	.29 ^{***}	–						
7. NSA	-.13 [†]	.12	.18 [*]	-.02	.01	-.53 ^{***}	–					
8. Authenticity	.13 [†]	-.19 ^{**}	-.17 [*]	-.02	.04	.51 ^{***}	-.61 ^{***}	–				
9. Promotion History	.07	-.03	-.12	-.05	.20 ^{**}	.45 ^{***}	-.12	.17 [*]	–			
10. Promotion Success	-.15 [*]	-.04	-.00	.09	.36 ^{***}	.61 ^{***}	-.25 ^{***}	.26 ^{***}	.39 ^{***}	–		
11. Prevention History	-.03	-.01	-.28 ^{***}	-.09	-.08	.15 [*]	-.14 [†]	.03	.33 ^{***}	.17 [*]	–	
12. Prevention Success	.20 ^{**}	-.05	-.09	.09	.20 ^{**}	.26 ^{***}	-.14 [†]	.20 ^{**}	.30 ^{***}	-.02	.02	–

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ Education: 1 = 8th grade or less, 2 = Some college or High School, 3 = Bachelor's degree, 4 = Master's degree or some graduate study, 5 = Advanced graduate degree.

4.5.2 Hypothesis 1A & 1B: Number of self-guides and content of self-guides

Regression models were used to test Hypothesis 1A, which predicted that authenticity scores would be associated with the number of self-standards that participants identified. Specifically, it was expected that higher authenticity scores would predict fewer self-guides overall. Regression models were conducted with authenticity and control variables predicting the number of ideal self-guides named, the number of ought self-guides named, and the total number of self-guides named. In addition, models were also conducted to test whether authenticity was associated with the number of actual attributes listed. Authenticity scores were not a significant predictor for any of those scores. It was observed however, in three statistical tests (predicting number of actual attributes listed as well as the number of ideal self-guides and the total number of self-guides) that higher levels of education (included as a control variable) held marginal significance in predicting higher numbers of terms. Self-esteem (also a control variable) was significant in predicting higher numbers of actual attributes and ought self-guides. These models are reported in Table 6 below.

Adding authenticity in the second step of the hierarchical regression analysis resulted in a nonsignificant increment in R^2 for each of the dependent variables in the tables above. The changes were minimal and nonsignificant for predicting the actual ($\Delta R^2 = .00, p > .10$), ideal ($\Delta R^2 = .00, p > .10$), ought ($\Delta R^2 = .00, p > .10$) and total ($\Delta R^2 = .00, p > .10$) tests.

Table 6: Regression Models for Control Variables and Authenticity Predicting Numbers of Responses on the Selves Questionnaire (N=135).

	Actual Attributes	Ideal Self- Guides	Ought Self- Guides	Total Number of Attributes
Variable	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	-.01 (.01)	-.01 (.01)	.01 (.01)	-.02 (.02)
Gender (Male)	-.50 (.37)	-.25 (.50)	-.30 (.52)	-.55 (.96)
Race/Ethnicity (White)	.63 (.40)	.70 (.54)	.51 (.56)	1.21 (1.03)
Education	.35 [†] (.18)	.43 [†] (.24)	.38 (.25)	.82 [†] (.46)
Marital Status (Married)	-.21 (.37)	.24 (.50)	.23 (.51)	.47 (.95)
Self-Esteem	.10* (.04)	.04 (.05)	.13* (.06)	.17 (.10)
Need for Social Approval	.09 (.09)	.17 (.12)	.17 (.12)	.34 (.10)
Authenticity	-.01 (.04)	.02 (.05)	.01 (.05)	.02 (.10)
Constant	2.69	.43	-1.56	-1.12
<i>R</i> ²	.15**	.08	.10 [†]	.10

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Note: The number of total attributes is the sum of the number of ideal self-guides and number of ought self-guides.

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

Hypothesis 1B predicted that authenticity scores would be associated with the content of standards that individuals held. Higher authenticity scores were expected to be associated with self-guides that reflected ideas of integrity, honesty and genuineness. The scoring of the Selves Questionnaire requires that terms listed for a self-guide that are synonymous or antonymous with other terms on that list be omitted prior to the scoring of that questionnaire. Therefore, to test the potential association between authenticity scores and the accessibility of self-guides that refer to the idea of authenticity, it was calculated whether an individual had listed a self-guide about integrity, honesty, or sincerity as their first ideal or ought self-guide. Terms that were synonymous with those terms, for example, dependable and reliable (synonyms for honest), also were counted as meeting that criterion. Logistic regression models were used to test this hypothesis, and separate models were tested for the likelihood of having an honest term as the first ideal self-guide and an honest term as the first ought self-guide. Only status as a first self-guide was tested given the coding of selves questionnaires in which all lower-order synonymous (or antonymous) terms are dropped.

Authenticity scores did not significantly predict the odds that an individual named an honesty-related term as a highly accessible ideal or ought self-guide. It should be noted, however, that there was very little variability in whether such a self-guide was named. Only 12 individuals named an honest term as their first ideal self-

guide, and 26 as their first ought self-guide. Seven of the 12 who named an honest term as their first ideal self-guide also named an honest term as their first ought self-guide. There was more variability in terms of the actual self attributes, with 44 of the participants naming an honesty-related term as their first attribute.

4.5.3 Hypothesis 2A: Authenticity and actual:ideal discrepancies

A series of regression models were used to test hypothesis 2A regarding the association between authenticity scores and actual:ideal discrepancy scores. It was predicted that higher authenticity scores would predict fewer actual:ideal self-discrepancies. The results of the test are reported in Table 7 and do not support the hypothesis that higher authenticity scores will predict lower levels of actual:ideal discrepancies when the study control variables are taken into account. The increment in R^2 is significant between steps 1 and 2 is nonsignificant ($\Delta R^2 = .005, p > .10$).

Table 7: Regression Models for Control Variables and Authenticity Predicting Actual:Ideal Discrepancies (N=135)

	1	2
Variable	<i>B</i>	<i>B</i>
Age	-.02* (.01)	-.02* (.01)
Gender (Male)	-.40 (.43)	-.47 (.44)
Race/Ethnicity (White)	-.98* (.47)	-.99* (.47)
Education	-.19 (.21)	-.18 (.21)
Marital Status (Married)	-.20 (.43)	-.19 (.43)
Self-Esteem	-.14** (.05)	-.13** (.05)
Need for Social Approval	.16† (.09)	.12 (.10)
Authenticity	---	-.04 (.05)
Constant	3.45	5.57
<i>R</i> ²	.270***	.275***

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

4.5.4 Hypotheses 2B/2C: Authenticity as a mediator of the promotion history/success link

A series of regression steps were used to test hypotheses 2B and 2C regarding the mediating role of authenticity in the predicted association between promotion history and promotion success. These hypotheses predicted that promotion history scores would significantly predict authenticity; higher scores on promotion history would

predict higher levels of authenticity; and that authenticity scores, in turn, would significantly predict promotion success scores. Higher scores on authenticity would be associated with higher values on the promotion success subscales. The analyses were run according to the Baron and Kenny (1986) steps for assessing mediation. Step 1 used promotion history to predict promotion success, Step 2 used promotion history to predict authenticity, and Step 3 used promotion history and authenticity to predict promotion success.

These tests did not support the hypothesized associations. In all three tests predicting promotion success, structural factors included as controls, as well self-esteem (control) had significant associations with levels of promotion success. Promotion history was (as expected) predictive of promotion success, but quite modestly. Hypothesis 2B predicted that promotion history scores would significantly predict authenticity. Higher scores on promotion history were expected to predict higher levels of authenticity. This hypothesis was not supported; promotion history scores did not significantly predict authenticity. Hypothesis 2C predicted that authenticity scores, would in turn, significantly predict promotion success scores such that higher scores on authenticity would predict higher values on the promotion success subscales. This hypothesis was also not supported; authenticity is not a significant predictor of promotion success. What the tests revealed was that promotion history predicts promotion success at a consistent level with and without authenticity in the model and

that authenticity has little effect in predicting promotion success. Table 8 below includes the two models predicting promotion success; Column 1 with promotion history and Column 2 with promotion history and authenticity.

The tests reported in Table 8 were run first with just the study control variables, second with promotion history, and in a third step with authenticity. Adding promotion history in the second step of the hierarchical regression analysis (Column 1) resulted in a significant increment in R^2 ($\Delta R^2 = .02, p < .05$). However, adding authenticity in the third step of the hierarchical regression analysis (Column 2) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00, p > .10$).

Table 8: Regression Models for Control Variables, Promotion History, and Authenticity Predicting Promotion Success (N=191)

	1	2
Variable	<i>B</i>	<i>B</i>
Age	-.03 ^{***} (.01)	-.03 ^{***} (.01)
Gender (Male)	-.47 (.35)	-.47 (.35)
Race/Ethnicity (White)	.20 (.36)	.20 (.36)
Education	.43 ^{**} (.16)	.43 [*] (.16)
Marital Status (Married)	.58 [†] (.34)	.58 [†] (.34)
Self-Esteem	.31 ^{***} (.04)	.31 ^{***} (.04)
Need for Social Approval	.03 (.07)	.03 (.08)
Promotion History	.08 [*] (.03)	.08 [*] (.03)
Authenticity	---	-.00 (.04)
Constant	9.28	9.47
<i>R</i> ²	.49 ^{***}	.49 ^{***}

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

4.5.5 Hypothesis 3A: Authenticity and actual:ought discrepancies.

A series of regression models were used to test hypothesis 3A regarding the association between authenticity scores and actual:ought discrepancy scores. It was predicted that higher authenticity scores would be associated with fewer actual:ought

self-discrepancies. The results of the analyses are reported in Table 9 and did not provide support for the hypothesis. The increment in R^2 across the steps was nonsignificant ($\Delta R^2 = .02, p > .10$).

Table 9: Regression Models for Control Variables and Authenticity Predicting Actual:Ought Discrepancies (N=135)

	1	2
Variable	<i>B</i>	<i>B</i>
Age	-.01 (.01)	-.01 (.01)
Gender (Male)	-.37 (.39)	-.48 (.40)
Race/Ethnicity (White)	-.49 (.43)	-.51 (.43)
Education	-.13 (.19)	-.11 (.19)
Marital Status (Married)	-.73 [†] (.40)	-.71 [†] (.39)
Self-Esteem	-.13 ^{**} (.04)	-.11 ^{**} (.04)
Need for Social Approval	.12 (.08)	.06 (.09)
Authenticity	---	-.06 (.04)
Constant	2.33	6.18
R^2	.23 ^{***}	.24 ^{***}

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

4.5.6 Hypotheses 3B/3C: Authenticity as mediator of the prevention history/success link.

A series of regression steps were used to test hypotheses 3B and 3C regarding the mediating role of authenticity in the predicted association between prevention history and prevention success. Those hypotheses predicted that prevention history scores would significantly predict authenticity; higher scores on prevention history were expected to predict higher levels of authenticity. Authenticity scores, in turn, were expected to significantly predict prevention success scores such that higher scores on authenticity were expected to predict lower values on the prevention success subscales. The analyses were run according to the Baron and Kenny (1986) steps for assessing mediation. Step 1 used prevention history to predict prevention success. Step 2 used prevention history to predict authenticity. Step 3 used prevention history and authenticity to predict prevention success.

These tests did not support the hypothesized associations. In all three tests predicting prevention success, structural factors included as controls, as well as self-esteem (control), were associated with higher levels of prevention success. Prevention history did not significantly predict prevention success in any of the models. Hypothesis 3B predicted that prevention history scores would significantly predict authenticity. Higher scores on prevention history were expected to predict higher levels of authenticity; this hypothesis was not supported. Hypothesis 3C predicted that authenticity scores would in turn, significantly predict prevention success scores such

that higher scores on authenticity would predict lower values on the prevention success subscale; this hypothesis was also not supported.

The tests reported in Table 10 were run first with just control variables, second with prevention history, and in a third step with authenticity. Adding prevention history in the second step of the hierarchical regression analysis (Column 1) also resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00, p > .10$). Adding authenticity in the third step of the hierarchical regression analysis (Column 2) also resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00, p > .10$).

Table 10: Regression Models for Control Variables, Prevention History, and Authenticity Predicting Prevention Success (N=191).

	1	2
Variable	<i>B</i>	<i>B</i>
Age	.03*	.03*
	(.01)	(.01)
Gender (Male)	-.71	-.62
	(.55)	(.55)
Race/Ethnicity (White)	.68	.74
	(.58)	(.58)
Education	.50 [†]	.50 [†]
	(.26)	(.26)
Marital Status (Married)	.39	.39
	(.54)	(.54)
Self-Esteem	.13*	.11 [†]
	(.06)	(.06)
Need for Social Approval	-.03	.04
	(.12)	(.13)
Prevention History	.02	.03
	(.05)	(.05)
Authenticity	---	.06
		.06
Constant	11.80	8.21
<i>R</i> ²	.14***	.14***

[†] *p*<.10 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

4.5.7 Hypothesis 4: Authenticity, depression, and anxiety.

A series of regression analyses were used to test the hypothesis regarding the role of authenticity in predicting depressive and anxious symptomatology. Authenticity scores were expected to significantly predict depressive symptomatology. Specifically, it was expected that that higher authenticity would be associated with lower levels of

depressive symptomatology. Likewise, authenticity scores were expected to significantly predict anxious affect such that higher authenticity would be associated with lower anxious symptomatology. Two hierarchical regression steps for each symptom (depression, anxiety) were tested and are reported in Table 11.

Table 11 displays several important trends about the associations between authenticity, anxiety, and depression. Support for the hypothesis about depression was found: higher authenticity predicted lower depression. This effect was small ($\beta = -.16$, $p < .05$). Support for the hypothesis about anxiety was also found: higher authenticity predicted lower anxiety. This effect was of notable size ($\beta = -.26$, $p < .01$), surpassed only by the effect size of one of the control variables (self-esteem). For both depression and anxiety, the inclusion of authenticity resulted in only a very modest increase in the R^2 values of the models, from .54 to .55 for depression, and for .23 to .27 for anxiety. All models are significant at the $p < .001$ level. The increments in R-squared values, although small, were significant for both the depression series ($\Delta = .01$, $p < .05$), and the anxiety series ($\Delta = .04$, $p < .01$).

Table 11: Regression Models for Control Variables and Authenticity Predicting Depression and Anxiety (N=191)

Variable	Depression		Anxiety	
	1	2	1	2
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	-.07** (.03)	-.07** (.03)	-.01 (.03)	-.01 (.03)
Gender (Male)	.77 (1.10)	.34 (1.10)	-.04 (1.17)	-.59 (1.16)
Race/Ethnicity (White)	-3.41** (1.13)	-3.59** (1.12)	-2.00† (1.20)	-2.24† (1.18)
Education	.15 (.52)	.15 (.52)	-.12 (.56)	-.11 (.54)
Marital Status (Married)	-3.45** (1.08)	-3.45*** (1.07)	-.03 (1.15)	-.94 (1.12)
Self-Esteem	-1.20*** (.12)	-1.13*** (.12)	-.67*** (.13)	-.57*** (.13)
Need for Social Approval	.22 (.23)	-.05 (.26)	.19 (.25)	-.17 (.27)
Authenticity	---	-.26* (.11)	---	-.35** (.12)
Constant	73.82	87.54	49.91	68.34
<i>R</i> ²	.54***	.55***	.23***	.27***

†*p*<.10 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

4.5.8 Hypothesis 5: Authenticity as moderator of the discrepancy/affect association.

A series of regression steps were used to test the hypothesis regarding the role of authenticity as a moderator of the discrepancy/affect association. Authenticity was expected to moderate the effects of self-discrepancies on predicting chronic affective

outcomes such that individuals with higher authenticity would have smaller self-discrepancies, but the amount of self-discrepancy required to predict chronic dysphoric and anxious affect was lower than that required for individuals with lower authenticity. That is, authenticity was expected to moderate the threshold at which self-discrepancy becomes associated with negative affect such that the threshold was lower for individuals who were higher in authenticity. To test this hypothesis, a set of regression models predicting affect, which included an authenticity-by-discrepancy interaction term, was conducted. The models were conducted using centered versions of the authenticity, discrepancy, self-esteem, and need for social approval variables for ease of interpretation. The models are reported in Table 12.

The analyses in Table 12 reveal that although authenticity (Column 1 and 2) and actual:ideal discrepancy scores (Column 2) did not have independent effects in predicting depression scores, they interacted significantly to predict depression scores (Column 3). Specifically, an interaction term multiplying authenticity with AI discrepancy was tested. The significant coefficient of the interaction (plotted in Figure 1 below) suggest that indeed, for those with lower levels of authenticity, having greater levels of AI discrepancies was associated with greater levels of depressive symptomatology than for those with higher levels of authenticity. The tests reported in Table 12 predicting anxiety revealed slightly different findings. In those models, authenticity had an independent effect in predicting anxiety across the models, with

higher authenticity predicting lower anxiety, and the AO discrepancy variable was significant only in the presence of the interaction term (Column 3). The interaction term multiplying levels of authenticity with levels of AO discrepancy was tested. The significant coefficient of the interaction (plotted in Figure 2 below) suggest that indeed, for those with lower levels of authenticity, having greater levels of AO discrepancies was associated with greater levels of anxiety compared to those with higher levels of authenticity.

The tests reported in Table 12 were run in four steps for predicting depression and anxiety. The first step included just control variables. For depression: Adding authenticity in the second step of the hierarchical regression analysis (Column 1) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .01, p > .10$). Adding AI discrepancy scores in the third step of the hierarchical regression analysis (Column 2) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00, p > .10$). Adding the interaction term in the fourth step of the hierarchical regression analysis (Column 3), however, resulted in a significant increment in R^2 ($\Delta R^2 = .01, p < .05$). For anxiety: Adding authenticity in the second step of the hierarchical regression analysis (Column 1) resulted in a significant increment in R^2 ($\Delta R^2 = .06, p < .01$). However, adding AO discrepancy scores in the third step of the hierarchical regression analysis (Column 2) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .01, p > .10$). Adding the interaction term in the fourth step of the

hierarchical regression analysis (Column 3) resulted in a significant increment in R^2 ($\Delta R^2 = .09, p < .001$).

Table 12: Regression Models for Control Variables, Authenticity and the Authenticity/Discrepancy Interactions Term in Predicting Affect (N=135)

Variable	Depression			Anxiety		
	1	2	3	1	2	3
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	-.09** (.03)	-.08** (.03)	-.08* (.03)	-.02 (.03)	-.02 (.03)	.07 (.03)
Gender (Male)	.67 (1.30)	.74 (1.31)	1.18 (1.31)	-.43 (1.30)	-.24 (1.30)	.66 (1.23)
Race/Ethnicity (White)	-2.86* (1.40)	-2.70† (1.43)	-2.71† (1.41)	-1.89 (1.40)	-1.68 (1.40)	-1.96 (1.31)
Education	.29 (.63)	.32 (.63)	.26 (.62)	.06 (.63)	.11 (.93)	.08 (.58)
Marital Status (Married)	-3.33* (1.29)	-3.30* (1.30)	-3.50** (1.29)	-.25 (1.29)	.04 (1.30)	-.16 (1.22)
Self-Esteem	-1.15*** (.14)	-1.13*** (.15)	-1.10*** (.14)	-.56*** (.14)	-.51*** (.14)	-.38** (.14)
Need for Social Approval	.14 (.31)	.12 (.31)	.08 (.31)	-.09 (.31)	-.11 (.31)	.02 (.29)
Authenticity	-.22 (.13)	-.21 (.13)	-.17 (.13)	-.44*** (.13)	-.42** (.13)	-.39** (.13)
A/I Discrepancy (Depression)	---	.16	.22	---	.40	.97**
A/O Discrepancy (Anxiety)		(.27)	(.26)		(.29)	(.30)
Authenticity/Discrepancy Interaction Term	---	---	-.07* (.03)	---	---	-.21*** (.05)
Constant	38.55	38.13	37.75	31.26	30.60	28.50
<i>R</i> ²	.58***	.58***	.59***	.34***	.35***	.44***

†*p*<.10 **p*<.05 ***p*<.01 ****p*<.001 Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

To understand the interaction effects further, the effects were plotted, as noted above. Centered discrepancy and authenticity scores were split using a median split. Individuals with scores greater than or equal to the median were considered high, and those less than the median were considered low. Figure 1 below depicts this interactive effect for predicting depression. For individuals who were lower in authenticity, higher levels of ideal discrepancy were associated with higher levels of depression. Higher levels of authenticity were protective against the adverse consequences of self-discrepancies.

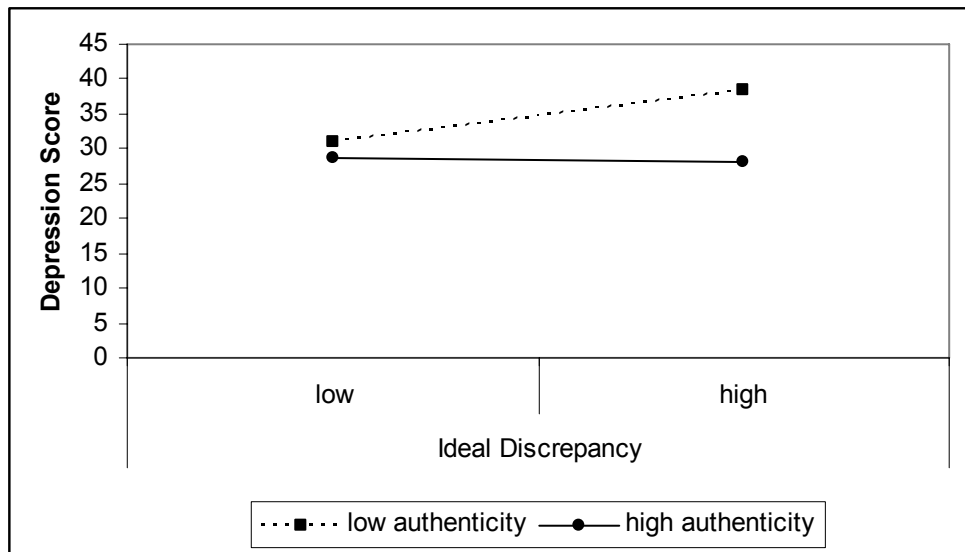


Figure 1: Authenticity/Ideal Discrepancy Interaction in Predicting Depression

Figure 2 below depicts the interactive effect of authenticity and ought discrepancies for predicting anxiety. For individuals with lower levels of authenticity,

higher levels of ought discrepancy are associated with higher levels of anxiety. Higher levels of authenticity are protective against the adverse consequences of self-discrepancies.

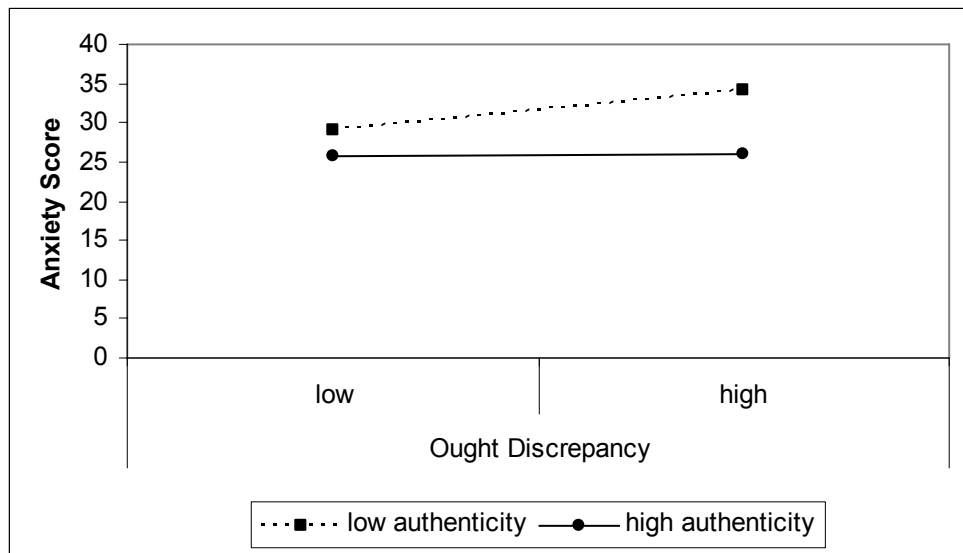


Figure 2: Authenticity/Ought Discrepancy Interaction in Predicting Anxiety.

4.6 Discussion

This study examined the associations among levels of authenticity, regulatory style, self-discrepancies, and negative affect. Concordant with the hypotheses, levels of authenticity independently predicted levels of depression and anxiety. They did indeed interact significantly with self-discrepancies to predict depression and anxiety but not in the direction hypothesized. Additionally, although authenticity did predict levels of promotion success, it did not have a large role in mediating the association between

prevention history and prevention success. Authenticity was not associated with promotion history or promotion success.

Individuals who were lower in authenticity reported greater levels of depression and anxiety. This finding was observed even when known correlates of depression and anxiety such as demographic variables were taken into account. This suggests that something distinct about behaving in a way that reflects what one is truly feeling, thinking, or values is associated with lesser feelings of depression and anxiety. It may be that such behavior, even if it is met with social disapproval, facilitates a sense of well-being. This finding replicated previous research that suggested that feelings of inauthenticity are associated with depression (Erickson and Wharton, 1997) and was compatible with the finding that feelings of authenticity are associated with a greater sense of well-being (Wood et al., 2008). Additionally, this effect persisted over and above the influence of self-esteem alone on depression and anxiety. Although this study did not make specific predictions about authenticity, it provided additional support for the observed relationship between authenticity and self-esteem documented in previous research (Harter et al., 1996; Sheldon et al., 1997; Goldman & Kernis, 2002; Wood et al. 2008, previously reported in Franzese, 2007 dissertation).

In addition to the main effect of authenticity in predicting depression and anxiety, this study found a significant interaction between authenticity and self-discrepancies, suggesting that higher levels of authenticity may be protective against the

negative affective consequences of self-discrepancies. Even though individuals who are high in authenticity may place particular value on consistency between beliefs and behaviors, self-discrepancies do not carry negative weight. This effect was observed when other important variables were included as controls (such as self-esteem and the need for social approval).

Authenticity scores were not associated with either the number or content of self-guides. Self-report of individual differences in authentic behavior may not be related in a meaningful way to one's inclination to access attributes that one would use to describe oneself. In addition, the lack of variability in the extent that honesty-related guides were named initially may account for the lack of finding in that regard. Authenticity was not a significant predictor of self-discrepancies (AI and AO).

5. Study 2

This study addressed the associations among authenticity, regulatory focus, and self-discrepancies using an experimental manipulation to determine whether authenticity would moderate changes in affect after priming self-discrepancy. Prior to conducting the analyses, power analysis was performed to estimate the statistical power to detect the hypothesized associations. The power analyses (previously reported in section 4.1) indicated that a sample size of 200 was adequate to detect the hypothesized associations of this study, specifically, there was enough statistical power to detect 'standardized' differences (mean differences measured in standard deviation units) of .41 with power equal to .80. A sample of 200 would be adequately powered to test for small to medium-sized main effects and larger interactive effects.

5.1 Participants

The sample for Study 2 was comprised of 285 individuals, including undergraduate students participating in the psychology subject pool and community members registered with a university-affiliated social psychology subject pool. Participants from the psychology pool received credit toward a course requirement, and community pool participants received \$10.00 compensation. Four individuals were excluded due to missing data on key study variables. Descriptive statistics for the final sample of 281 participants are provided in Table 13. Although the sample was predominantly composed of psychology subject pool participants (n=211), it had an age

range of 18 to 39 (mean age = 19.8), and was diverse in terms of gender (55% female) and ethnicity (47% non-white).

5.2 Procedure and Measures

Participants completed a consent form that explained the study procedures and were provided a copy of the consent form for their records. Participants were seated at individual computer stations, shielded from other participants to afford privacy. All questionnaires were presented on the computer using MediaLab software. Written debriefing was provided at the end of the study on the computer. When participants indicated they had completed all study measures, a member of the research team made sure that compensation was provided (either course credit or cash).

The computerized questionnaire set included, in the following order: (1) a demographic questionnaire, (2) a measure of self-esteem (control variable), (3) a measure of the need for social approval (control variable), (4) a measure of affect (pre-experimental manipulation), (5) the Computerized Selves Questionnaire (6) the Authenticity Questionnaire included in Study 1, (7) a lexical decision task (as a distractor task), (8) the experimental manipulation itself (a priming manipulation), (9) a measure of affect (post-priming activation), (10) a measure of attachment style (filler), (11) a measure of awareness of the true self, and (12) an alternate measure of authenticity.

Self-esteem, need for social approval, and demographic variables¹ (age, gender, race/ethnicity, education) were included as control variables.

Unlike previous studies on self-discrepancies, which have required that the researcher manually select individual participants' self-guides that were most discrepant for use in priming manipulations (i.e. most distant, most important, or most difficult to possess), this experimental manipulation had been designed to automatically present participants with the appropriate ideal or ought self-guides based on their experimental condition. Participants were randomized into one of three conditions. The first condition primed participants with their most self-discrepant ideal self-guides. The second condition primed individuals with their most self-discrepant ought self-guides. The third condition was a control condition in which participants were primed with a trait attribute that was not their own. Specifically, a list of twenty guides was constructed based on review of the Selves Questionnaire in the survey data from Study 1. The list included words that were frequently mentioned but not those terms that were most commonly mentioned. Participants in the control group were asked questions (below) about two of these words. The experiment was programmed such that participants randomized to the control priming condition received only words that did not appear on their list of self-guides, and such that the control words used varied

¹ Marital status, a control variable in Study 1 was not included as a control variable in this study since only 12 participants indicated they were married.

between participants in the control condition. It was expected that this manipulation would provide a comparison condition in which participants responded to priming with a positively valenced but presumably non-self-relevant trait attribute. In the course of preparing the data for analysis, it was noted that approximately one third of the control group was primed with terms that were synonymous with self-guides listed. This occurred because the software program controlled for exact duplication but not for synonyms when it selected the stimuli for the control participants.

The computerized Selves questionnaire was programmed to ask individuals two questions about each of their self-guides: (1) how far the individual was from possessing it (*distance*), (2) and how important it was for the individual to possess it (*importance*). For the purpose of selecting self-guides for the priming manipulation, the distance metric was used because that measure indicated the self-guide with which the individual was currently most discrepant. Thus, magnitude of discrepancy was gauged according to distance—those with the greatest distance were presented as discrepant self-guides. The self-guides used as primes were not identified as such to participants, although because they had been assessed early in the same session participants may have been able to identify them. Likewise, conducting the entire study within a single session may have influenced the impact of the priming.

The experimental manipulation generally followed the procedure described by Strauman, Lemieux, and Coe (1993) for activating self-discrepancies. The experimental

manipulation asked participants to write about their self-guides (including guides that were discrepant with the actual self). Specifically, participants completed four questions about two self-guides that were most discrepant. These questions were from Strauman et al. (1993) and included the following: (1) "Would you say it was important for you to be X? If so, why? If not, why not?"; (2) "Would your parents say that they want you to be X? If so, why? If not, why not?"; (3) "What might be some advantages for you of being X?"; and (4) "Have there been any changes over the course of your life in whether or not you were X? If so, please describe them briefly."

Participants' mood was measured pre- and post-manipulation using a version of a measure used by M.R. Leary (personal communication, July 7, 2008) that was modified to reflect the affective terms studied by Higgins and colleagues (Higgins, 1987). Specifically, the measure was modified to include terms that denoted the four affective predictions of self-discrepancy theory: dysphoric mood, anxiety, elation, and relief. The terms that denoted dysphoric mood included: down, dejected, sad, and blue. The terms that denoted anxiety were tense, uneasy, uptight, and nervous. The terms happy, energetic, cheerful and enthusiastic were included as indicators of elation, while calm, secure, peaceful, and relaxed were included to indicate quiescence. The order in which the terms were presented was randomized. Measuring mood pre- and post-activation allowed for two important tests. First, it allowed for tests of main effect hypotheses (i.e., whether individual differences in authenticity would predict variability in mood).

Second, it afforded the ability to measure any changes in mood that resulted from self-discrepancy activation as well as possible interactions among trait authenticity, magnitude of self-discrepancy, and priming condition. The primary hypotheses of this study pertain specifically to negative affect (dysphoric mood and anxious mood).

In addition, content analysis of participants' responses (both the self-guides named and written responses to the priming questions) was performed both to quantify levels of negative affect content and to assess the extent to which authenticity themes were included. Content analysis to test the extent to which the responses to the four questions included anxious and depressive content using the *Linguistic Inquiry and Word Count* (LIWC) software designed by Pennebaker, Francis, and Booth (2007). The LIWC software searches for specific terms denoting psychological processes such as positive emotions and negative emotions (anxious and depressive related content).

Regulatory focus was measured according to the importance scores generated by the computerized Selves measure. The extent to which a self-guide is evaluated as important is expected to be consistent with regulatory orientation. Specifically, importance scores for ideal self-guides are a proxy for promotion orientation, and importance scores for ought self-guides are a proxy for prevention orientation. The scores were calculated by summing the importance ratings that participants gave each self-guide (1= *not at all*, to 7= *extremely*) and calculating the mean importance score for each self-guide domain (ideal/promotion, ought/prevention).

5.3 Hypotheses

This study afforded another opportunity to test the associations among authenticity, regulatory orientation, and self-discrepancies described in Study 1, and to test the hypothesis that authenticity would moderate the influence of priming self-discrepancies on affect. The novel contribution of this study was that it tested whether individuals primed with discrepant self-guides described feelings of inauthenticity (content analysis) and whether authenticity scores moderated the effects of self-discrepancies in predicting change in affect from pre- and post-priming.

This study also afforded another data set with which to assess the predictions made about authenticity and regulatory focus proposed in Study 1 (Hypotheses 2B and 3B). Higher levels of authenticity were expected to predict higher levels of promotion orientation and lower levels of prevention orientation. This study also tested the main effect hypothesis (4), described in Study 1: that individuals with higher levels of authenticity will report lower levels of dysphoric mood and anxious mood, as well as the moderator hypothesis regarding the role of authenticity as a moderator of the discrepancy/affect association (Hypothesis 5).

This study proposed and tested two new hypotheses. Specifically, this study tested whether when self-discrepancies were activated experimentally, individuals high in authenticity found the self-discrepancies more acutely distressing (6A). Individuals high and low in authenticity were expected to respond differently when primed with

ideal or ought self-discrepancies. In addition to assessing changes in negative affect, it was expected that individuals in the discrepancy priming conditions would have lower positive affect than those in the control priming condition. This hypothesis is described below:

- Hypothesis 6A: Authenticity will moderate the effects of self-discrepancies on predicting acute affective outcomes such that individuals with higher levels of authenticity will have smaller self-discrepancies, but that once discrepancies are activated that they will be more distressing (i.e. associated with greater mood change) than for individuals with equivalent levels of self-discrepancy but lower levels of authenticity.

The text responses to the priming questions were also evaluated in conjunction with this hypothesis. The level of depressive and negative affective content in the responses was expected to vary according to condition, and be consistent with the expected mood state at Time 2.

The content analysis procedure also examined text responses for the use of key words relating to themes of authenticity and integrity. Specifically it was expected that individuals who were higher levels in authenticity will invoke authenticity related terms to a greater extent, described below (6B).

- Hypothesis 6B: Authenticity levels will significantly predict the authenticity-related themes in writing samples, post-priming. Individuals with higher levels of authenticity will manifest more references to themes related to authenticity in their written responses to the self-guide priming than individuals with lower levels of authenticity.

These hypotheses were tested through a series of hierarchical regression models.

5.4 Results

Descriptive statistics for the sample are reported in Table 13. Across conditions, there was sufficient variability in the magnitude of discrepancy size, for both ought and ideal discrepancies, to detect the potential impact of the priming manipulation. This was important to assess as it might have been the case that discrepancies, if not salient enough, might not produce feelings of inauthenticity, which could contribute to feelings of dysphoric or anxious mood. Discrepancy scores could range from 1-7. Only two individuals reported zero ideal discrepancies, and three individuals (including one of the previous) reported zero ought discrepancies. Those individuals were still presented with self-guides that they generated.

**Table 13: Descriptive Statistics for Participants for Hypotheses 6A & 6B
(N=281)**

	M	<u>SD</u>	Range	Percent
Age (years)	19.8	<u>3.3</u>	18-39	
Gender				
Male (n=127)				45.2
Female (n=154)				54.8
Ethnicity				
White (n=150)				53.4
Black (n=39)				13.9
Asian (n=73)				26.0
Other (n=19)				6.8
Ideal Importance (Promotion)	5.62	<u>.94</u>	1.8-7	
Ought Importance (Prevention)	5.46	<u>1.00</u>	1.6-7	
Ideal Discrepancy	3.57	<u>1.04</u>	1-6.4	
Ought Discrepancy	3.40	<u>1.16</u>	1-6.8	

Note: Scores on ideal and ought importance can range from 1-7, and scores on ideal and ought discrepancy can range from 1-7.

5.4.1 Correlations

Table 14 displays Pearson correlation coefficients among study variables; those with p-values less than .05 were considered statistically significant. The main variables of interest (regulatory focus, self-discrepancies, and authenticity) manifested a number

of statistically significant correlations. Authenticity was positively correlated with promotion and prevention orientations, but negatively correlated with both ideal and ought discrepancies. Ought discrepancies were negatively correlated with prevention and positively correlated with ideal discrepancies. Ideal discrepancies were negatively correlated with both promotion and prevention.

The control variable self-esteem was negatively correlated with need for social approval, and both ideal and actual discrepancies suggested that individuals who were higher in self-esteem had lower need for social approval and fewer self-discrepancies. The control variable need for social approval was negatively correlated with authenticity but positively correlated with ideal discrepancies, suggesting that higher levels of need for social approval were associated with lower levels of authenticity and higher levels of discrepancy between who one is and who one feels he/she would like to be.

There were no significant correlations among the demographic variables and authenticity, but age was associated with lower levels of promotion and higher levels of both types of discrepancy, being White with lower levels of prevention, and higher levels of education were associated with lower levels of both promotion and prevention. Gender had a marginally significant correlation with both promotion and prevention, both of which appeared to be slightly higher among women in this sample. The control variable need for social approval, like authenticity, was not correlated with demographic

variables, but self-esteem was associated with being male, and marginally, with being White.²

² In addition, it should be noted that the authenticity measure used in this study was correlated at the .70 level ($p < .000$) with another measure of authenticity, that of Wood et al. (2008). This correlation serves as a confirmation of the validity of the current measure.

Table 14: Correlations between Control Variables, Regulatory Styles, Self-Discrepancies, and Authenticity (N=281)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Age	–											
2. Male	-.03	–										
3. White	-.11 [†]	.10	–									
4. Education	.47 ^{***}	-.09	.06	–								
5. Married	.72 ^{***}	.04	-.07	.33 ^{***}	–							
6. Self-Esteem	-.02	.15 [*]	.11 [*]	-.06	-.02	–						
7. NSA	.00	.10	-.06	.02	-.03	-.46 ^{***}	–					
8. Promotion	-.16 ^{**}	-.10 [†]	.00	-.17 ^{**}	-.09	.05	-.07	–				
9. Prevention	-.08	-.10 [†]	-.18 ^{**}	-.18 ^{**}	-.03	.06	-.00	.49 ^{***}	–			
10. I/A Discrepancy	.16 ^{**}	.00	-.09	.07	.07	-.26 ^{***}	.18 ^{**}	-.13 [*]	-.16 ^{**}	–		
11. O/A Discrepancy	.15 ^{**}	.03	-.03	.07	.10	-.18 ^{**}	.08	-.02	-.25 ^{***}	.56 ^{***}	–	
12. Authenticity	-.05	-.00	.06	-.04	.07	.50 ^{***}	-.62 ^{***}	.18 ^{**}	.15 ^{**}	-.21 ^{**}	-.16 ^{**}	–

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[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Education: 1 = High School Graduate, 2 = Some college or vocational school, 3 = Bachelor's degree or beyond.

5.4.2 Authenticity and regulatory orientations (Hypotheses 2B & 3B)

This data set provided an additional opportunity to test hypotheses 2B and 3B regarding authenticity and regulatory orientation. The measure of regulatory orientation in the present analyses was based on the importance scores that study participants listed for their self-guides. A series of regression models were used to test hypotheses 2B and 3B regarding the role of authenticity in predicting regulatory styles. Because the source of regulatory orientation in these analyses was importance scores on the Selves measure, specific promotion and success scales were not available. The modified versions of the hypotheses tested follow:

- Hypothesis 2B: Authenticity scores will significantly predict promotion scores. Higher scores on authenticity will predict higher levels of promotion orientation.
- Hypothesis 3B: Authenticity scores will significantly predict prevention scores. Higher scores on authenticity will predict lower levels of prevention orientation.

The results are reported in Table 15 below. Table 15 displays several important trends about promotion orientation. The modified form of Hypothesis 2B predicted that authenticity scores would predict promotion orientation such that higher scores on authenticity would predict higher values of promotion orientation. This hypothesis was supported, and the beta coefficient for authenticity was larger than that of any of the other coefficients ($\beta = .21, p < .01$).

The modified version of Hypothesis 3B predicted that authenticity scores would significantly predict prevention scores such that higher scores on authenticity would predict lower values of prevention orientation. Authenticity was a significant predictor of prevention orientation but not in the direction hypothesized. This effect size of authenticity was about a third greater than that of any other variable in the equation ($\beta = .23, p < .01$). The small R-squared values for these models suggests, however, that whatever accounts for the variance in promotion and prevention styles (as measured by importance scores of self-guides) was not reflected in the current analyses.

The models reported in Table 15 were run first with control variables only in the model, and in the second step, reported in the table, with control variables and authenticity. Adding authenticity in the second step of the hierarchical regression analysis predicting promotion orientation resulted in a significant increment in R^2 ($\Delta R^2 = .02, p < .01$). Adding authenticity in the second step of the hierarchical regression analysis predicting prevention orientation resulted in a significant increment in R^2 ($\Delta R^2 = .03, p < .01$).

Table 15: Regression Models for Authenticity Predicting Promotion and Prevention Orientations (N=281)

	Promotion	Prevention
Variable	<i>B</i>	<i>B</i>
Age	-.03 (.02)	-.00 (.02)
Gender (Male)	-.23* (.11)	-.26* (.12)
Race/Ethnicity (White)	-.02 (.11)	-.35** (.12)
Education	-.19 [†] (.10)	-.27* (.11)
Self-Esteem	-.00 (.01)	.01 (.01)
Need for Social Approval	.02 (.03)	.07* (.03)
Authenticity	.03** (.01)	.04** (.01)
Constant	4.86	3.18
<i>R</i> ²	.08**	.11***

[†]*p*<.10 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

5.4.3 Authenticity and negative mood states (Hypothesis 4), and Authenticity as a moderator of the discrepancy/affect association (Hypothesis 5)

This data set allowed another opportunity to test the main effect hypothesis (4) described in Study 1 that higher levels of authenticity would predict lower levels of negative affect. Table 16 displays trends about the associations between authenticity, dysphoric mood, and anxious mood. Support for the hypothesis about dysphoric mood

was not found. Although the effect of authenticity in predicting depression was in the direction hypothesized, it was small and did not achieve statistical significance. Support for the hypothesis about anxious mood was found but was only marginally significant: higher authenticity predicted lower anxious mood. This effect was of minimal size and strength, however ($\beta = -.13$, $p < .10$). Adding authenticity in the second step of the hierarchical regression analysis predicting dysphoric mood (Column 2) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00$, $p > .10$). Adding authenticity in the second step of the hierarchical regression analysis predicting anxious mood (Column 2) resulted in a marginally significant increment in R^2 ($\Delta R^2 = .01$, $p < .10$).

To assess the moderator hypothesis proposed in Study 1 (Hypothesis 5), regression analyses were used to test the hypothesis regarding the role of authenticity as a moderator of the discrepancy/affect association. Authenticity was expected to moderate the effects of self-discrepancies on chronic affective outcomes such that individuals with higher authenticity would have smaller self-discrepancies, but the amount of self-discrepancy required to predict chronic dysphoric and anxious affect was lower than that required for individuals who were lower in authenticity. A set of regression models predicting affect, which included an authenticity-by-discrepancy interaction term, was conducted. The models were conducted using centered versions of the authenticity, discrepancy, self-esteem, and need for social approval variables for ease

of interpretation. The models are reported in Columns 3 and 4 of Table 16 for dysphoric mood and for anxious mood.

The analyses in Table 16 reveal that in addition to nonsignificant effects of authenticity in predicting dysphoric mood, (Column 2), ideal discrepancy scores (Column 3) and the authenticity/ideal discrepancy interaction term (Column 4) did not significantly predict dysphoric mood. Adding ideal discrepancy scores in the third step of the hierarchical regression analysis predicting dysphoric mood resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00$, $p > .10$), as did the inclusion of the interaction term ($\Delta R^2 = .00$, $p > .10$).

Likewise, although authenticity was a marginally significant predictor of anxious mood (Column 2), ought discrepancy scores (Column 3) and the authenticity/ought discrepancy interaction term (Column 4) did not significantly predict anxious mood scores. Adding ought discrepancies in the third step of the hierarchical regression analysis predicting anxious mood resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .007$, $p > .10$), as did the inclusion of the interaction term ($\Delta R^2 = .00$, $p > .10$).

Table 16: Regression Models for Control Variables and Authenticity Predicting Pre-Priming Dysphoric and Anxious Mood (N=281)

Variable	Dysphoric Mood				Anxious Mood			
	1	2	3	4	1	2	3	4
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	.06 (.07)	.06 (.07)	.06 (.07)	.07 (.07)	-.01 (.09)	-.01 (.09)	-.03 (.09)	-.03 (.09)
Gender (Male)	.26 (.43)	.26 (.43)	.26 (.43)	.34 (.44)	.54 (.51)	.55 (.51)	.51 (.51)	.43 (.52)
Race/Ethnicity (White)	.24 (.42)	.23 (.43)	.23 (.43)	.25 (.43)	.81 (.51)	.80 (.51)	.80 (.51)	.77 (.51)
Education	.08 (.34)	.08 (.39)	.08 (.39)	.06 (.39)	-.04 (.46)	-.04 (.46)	-.03 (.46)	-.05 (.46)
Self-Esteem	-.34*** (.05)	-.34*** (.05)	-.34*** (.06)	-.34*** (.06)	-.20** (.06)	-.17** (.06)	-.15* (.06)	-.15* (.07)
Need for Social Approval	.04 (.09)	.01 (.11)	.01 (.11)	.01 (.11)	.24* (.11)	.12 (.13)	.13 (.13)	.15 (.13)
120 Authenticity	---	-.02 (.04)	-.02 (.05)	-.02 (.05)	---	-.09† (.05)	-.09 (.05)	-.09 (.05)
A/I Discrepancy (Dysphoria)	---	---	-.04 (.21)	-.02 (.21)	---	---	.97** (.30)	.28 (.22)
A/O Discrepancy (Anxiety)	---	---	---	-.03 (.03)	---	---	.31 (.22)	.03 (.03)
Authenticity/Discrepancy Interaction Term	---	---	---	---	---	---	---	---
Constant	16.24	17.57	5.89	5.75	10.86	15.95	8.86	8.95
<i>R</i> ²	.19***	.19***	.19***	.19***	.10***	.107***	.114***	.12**

†*p*<.10 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

5.4.4 Hypothesis 6A: Authenticity as Moderator of the Influence of Self-Discrepancies

To test the possibility that authenticity moderated the influence of self-discrepancies on negative affect and to test the effectiveness of the experimental manipulation, a 2×3 repeated measures ANOVA was conducted, with time (pre- vs. post-test) as a within-subjects variable and priming condition (control vs. ideal vs. ought) as a between-subjects variable. A significant main effect of time showed that dysphoric mood significantly decreased between the pre- and post-test, $F(1, 280) = 29.50$, $p < .000$. There was no significant main effect of priming condition, $F(4, 554) = 1.27$, $p > .10$, nor a significant time by priming condition interaction $F(2, 278) = 0.50$, $p > .10$. These results suggest that dysphoric mood scores were likely to decrease regardless of the manipulation.

Similarly, a 2×3 repeated measures ANOVA was conducted to predict change in anxious mood, with time (pre- vs. post-test) as the within-subjects variable and priming condition (control vs. ideal vs. ought) as a between-subjects variable. A significant main effect of time showed that anxious mood significantly decreased between the pre- and post-test, $F(1, 280) = 25.99$, $p < .000$. There was no significant main effect of priming condition, $F(4, 554) = 1.51$, $p > .10$, nor was there a significant time by priming condition interaction $F(2, 278) = 0.25$, $p > .10$. These results suggest that anxious mood scores were likely to decrease after a delay, regardless of the manipulation.

To explore the possibility that the experimental manipulation influenced levels of positive affect, a similar 2 × 3 repeated measures ANOVA was conducted for elation, with time (pre- vs. post-test) as the within-subjects variable and priming condition (control vs. ideal vs. ought) as a between-subjects variable. There was a significant main effect of time, with elation significantly decreasing between the pre- and post-test, $F(1, 280) = 17.56, p < .000$. There was no significant main effect of priming condition, $F(4, 554) = 1.45, p > .10$ or significant time by priming condition interaction $F(2, 278) = .97, p > .10$. These results suggest that elation scores were likely to decrease after a delay, regardless of the manipulation. Likewise, a 2 × 3 repeated measures ANOVA was conducted for quiescence, with time (pre- vs. post-test) as the within-subjects variable and priming condition (control vs. ideal vs. ought) as a between-subjects variable. Neither the main effect of time $F(1, 280) = 2.14, p > .10$, of condition, $F(4, 554) = .41, p > .10$, nor the time by priming condition interaction were significant, $F(2, 278) = .36, p > .10$. These results suggest that quiescence scores did not change significantly after a delay, regardless of manipulation.

As an alternative examination of the impact of the priming manipulation, the study tested the effect of condition using measures of positive and negative affect assessed through text responses. Scores on the LIWC positive affect, dysphoric mood, and anxious mood measures scales were calculated for the eight questions (combined) for each participant. Scores reflect the percentages of words that reflect the designated

affect. One-way ANOVA models were conducted for four variables based on the text responses: total positive affect, total sadness- (depression) related content and total anxiety-related content, and total negative affect (anger, anxiety, and sadness). There was no overall effect of priming condition for scores on the positive affect measure ($F(2, 278) = 2.10, p > .10$). There was a significant overall effect of priming condition on overall negative emotion content ($F(2, 278) = 3.34, p < .05$). Post-hoc comparison tests indicated a significant difference between the mean negative emotion scores of the control and ought priming groups, with participants in the ought group ($M = 12.06$) writing in ways that denoted higher levels of negative emotion-related content than those in the control group ($M = 7.88$), $t(278) = 4.18, p < .05$. There was not a significant overall effect of condition for scores on sadness-related content, ($F(2, 278) = .09, p > .10$), or anxiety-related content ($F(2, 278) = .76, p > .10$). Post-hoc comparison follow-up tests did not indicate significant differences between any of the conditions for positive emotion, sadness, or anxiety related content. The observed effects for the ought condition were generally consistent with study hypotheses in that the ought group had higher negative emotion than the control, but not specifically consistent given the significant difference pertained to negative emotion and not anxiety-related content specifically.. It was expected that the ought priming condition would have been associated with more anxious related content, not just an increase in overall negative emotion content.

These initial findings suggest that the experimental manipulation was not fully effective. However, as a further evaluation of Hypothesis 6A (that individuals high in authenticity would report more distress as a result of an activated discrepancy), a series of regressions tested whether authenticity predicted magnitude of discrepancy for each ideal and ought discrepancies. The results, reported in Table 17, suggest that authenticity was not a powerful predictor of the extent to which individuals reported self-discrepancies. The tests predicting ideal discrepancies were run first with just control variables, second with authenticity, and in a third step with a measure of promotion orientation. Adding authenticity in the second step of the hierarchical regression analysis (Column 1) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .00$, $p > .10$). Adding promotion orientation in the third step of the hierarchical regression analysis (Column 2) also resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .01$, $p > .10$). The tests predicting ought discrepancies were conducted first with just control variables, second with authenticity, and in a third step with a measure of promotion orientation. Adding authenticity in the second step of the hierarchical regression analysis (Column 1 below) resulted in a nonsignificant increment in R^2 ($\Delta R^2 = .01$, $p > .10$). Adding promotion orientation in the third step of the hierarchical regression analysis (Column 2) resulted in a significant increment in R^2 ($\Delta R^2 = .05$, $p < .001$).

Table 17: Regression Models for Control Variables, Authenticity, and Regulatory Orientation Predicting Discrepancy Size (N=281)

Variable	Ideal Discrepancies		Ought Discrepancies	
	1	2	1	2
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	.05*	.05*	.05*	.05*
	(.02)	(.02)	(.02)	(.02)
Gender (Male)	.09	.05	.14	.06
	(.12)	(.12)	(.14)	(.14)
Race/Ethnicity (White)	-.09	-.09	.01	-.09
	(.12)	(.12)	(.14)	(.14)
Education	-.02	-.04	-.02	-.09
	(.11)	(.11)	(.13)	(.12)
Self-Esteem	-.05**	-.05**	-.04*	-.04*
	(.02)	(.01)	(.02)	(.02)
Need for Social Approval	.01	.02	-.03	-.01
	(.03)	(.03)	(.04)	(.04)
Authenticity	-.01	-.01	-.02	-.01
	(.01)	(.01)	(.01)	(.01)
Relevant Importance Score (Ideal/Ought)	---	-.09	---	-.27***
		(.07)		(.07)
Constant	4.51	4.94	4.97	5.84
<i>R</i> ²	.10***	.11***	.07**	.12***

[†]*p*<.1 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

A series of hierarchical regression analyses tested whether authenticity predicts change in mood post-manipulation, taking pre-priming mood into account. These results are reported in Column 2 of Table 18 for each post-manipulation mood variable. To test the possibility of a significant interaction between authenticity and priming condition, the next step included whether or not the individual was in the priming condition relevant to that mood (for dysphoric mood, membership in the ideal priming

condition/for anxious mood, membership in the ought priming condition) (Column 3). The final step tested whether authenticity and membership in the relevant priming condition interacted to predict post-priming mood (Column 4). Centered versions of authenticity and pre-priming mood (as well as self-esteem and need for social approval) were used in these models to allow for ease of statistical interpretation.

Table 18 reveals that, not surprisingly, pre-priming affect was a powerful predictor of post-priming affect. However, neither authenticity, priming condition, nor the authenticity/condition interaction term significantly predicted post-priming mood. The analyses were conducted in five steps. The regression analyses were conducted first with only control variables. There was a significant increment in R^2 with the inclusion of pre-priming mood predicting post-priming dysphoric mood, ($\Delta R^2 = .51, p < .001$), but no subsequent significant increments with the inclusion of authenticity scores, priming condition, or the authenticity/priming interaction term. Similar results were observed for predicting post-priming anxious mood. There was a significant increment in R^2 with the inclusion of pre-priming mood, ($\Delta R^2 = .64, p < .001$), but no subsequent significant increments with the inclusion of authenticity scores, priming condition, or the authenticity/priming interaction term.

Table 18: Regression Models for Control Variables and Authenticity Predicting Post-Priming Dysphoric and Anxious Mood (N=281)

Variable	Dysphoric Mood				Anxious Mood			
	1	2	3	4	1	2	3	4
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	.07 (.04)	.06 (.04)	.06 (.04)	.07 (.04)	.13* (.05)	.13* (.05)	.14** (.05)	.15** (.05)
Gender (Male)	.53* (.25)	.53* (.25)	.53* (.25)	.55* (.25)	.35 (.31)	.35 (.31)	.36 (.31)	.37 (.31)
Race/Ethnicity (White)	.14 (.25)	.13 (.25)	.13 (.25)	.12 (.25)	.48 (.30)	.48 (.30)	.47 (.30)	.46 (.30)
Education	-.25 (.23)	-.25 (.23)	-.25 (.23)	-.27 (.23)	-.49† (.28)	-.49† (.28)	-.52† (.28)	-.57* (.28)
Self-Esteem	-.05 (.03)	-.03 (.03)	-.04 (.03)	-.03 (.03)	-.04 (.04)	-.03 (.04)	-.03 (.04)	-.03 (.04)
Need for Social Approval	.00 (.05)	-.04 (.16)	-.04 (.06)	-.04 (.06)	-.01 (.07)	-.03 (.08)	-.03 (.08)	-.03 (.08)
Matched Pre-Priming Affect	.72*** (.04)	.72*** (.04)	.72*** (.04)	.72*** (.04)	.73*** (.04)	.73*** (.04)	.72*** (.04)	.72*** (.04)
Authenticity	---	-.04 (.03)	-.04 (.03)	-.06† (.03)	---	.02† (.03)	-.09 (.05)	.01 (.04)
Matched Priming Condition (Ideal/Dys, Ought/Anx)	---	---	-.02 (.26)	-.03 (.26)	---	---	.40 (.32)	.38 (.32)
Authenticity/Condition Interaction Term	---	---	---	.05 (.04)	---	---	---	-.08 (.05)
Constant	5.58	5.63	5.64	5.75	5.72	5.75	5.53	5.47
<i>R</i> ²	.67***	.68***	.68***	.68***	.64***	.64***	.64***	.64***

†*p*<.10 **p*<.05 ***p*<.01 ****p*<.001

Note: Models report unstandardized regression coefficients. Standard errors are in parentheses.

5.4.5 Hypothesis 6B: Authenticity Content

Hypothesis 5C proposed that individuals higher in authenticity would invoke ideas of authenticity (i.e., speaking about feeling false or fake) more than individuals who were low in authenticity. The extent to which authenticity-related themes were noted was assessed through content analysis of participants' writing samples and through the self-guides that participants generated on the computerized Selves Questionnaire. The content of the writing samples (responses to four questions) alluded to authenticity only occasionally, and equivalent numbers of participants generated authenticity-related responses across the conditions. In some cases this was connected to the priming term used (e.g., honest). Respondents did not largely respond to the priming questions in ways that invoked ideas of authenticity, integrity, or honesty. Specifically, 44% of the sample provided at least one text response that was considered as including authenticity-related content. Higher levels of authenticity did not significantly predict greater odds of authenticity-related content, nor did priming condition or the priming condition \times authenticity interaction term.

To explore further whether higher authenticity individuals were more likely to hold authenticity-related terms as self-relevant, the analysis tested the likelihood of naming an authenticity-related self-guide as the first (most accessible) ideal or ought self-guide. There was significant variability in the extent to which participants listed an honesty- or authenticity-related term as their first ideal or ought self-guide. Although

only approximately 7% and 10% of the sample listed an authenticity-related ideal or ought self-guide, respectively, as their first self-guide, a much larger percentage of the sample listed at least one term that was related to authenticity and/or honesty.

Specifically, 15% of the sample listed an authenticity-related ideal term, and 28% of the sample listed an authenticity-related ought term. In models including only the control variables and authenticity, higher authenticity tended to be associated with slightly lower odds of listing an honesty-related term as the first ideal (OR = .92, $p < .10$).

However, the tests for the odds of listing an authenticity-related first ought self-guide were similarly sized but were not marginally significant (OR = .93, $p = .105$). However authenticity did not significantly predict the odds of listing an honesty-related term in any position.

5.5 Discussion

This study examined the associations among authenticity, regulatory orientation, and affect, and evaluated whether authenticity moderated the affective consequences of self-discrepancies. This study provided an opportunity to explore the main effect associations among authenticity, depression, and anxiety that were observed in Study 1. The associations between authenticity and affect were obtained, but were small and marginal, and only present for anxious pre-priming mood. The results suggest that individuals who are higher in authenticity felt less anxious in the moment. It is unclear whether the pre-priming mood measure measured anything that reflected more chronic

mood. It may be that feeling tense or uneasy is more transient than feeling sad or blue, which may reflect a more chronic condition. Feeling more authentic may give one a reprieve from any in-the-moment feelings of anxiety (perhaps, even a sense of freedom) but may not carry that influence with feeling sad or blue.

Associations among authenticity and individual differences in regulatory focus were also tested. Higher authenticity was associated with higher levels of promotion (as hypothesized) but also of prevention (which was not expected). Individuals who scored higher on a measure of authenticity may have been more likely to identify as having a distinct self-regulatory style. In addition, regulatory focus was assessed via ratings of the importance of self-guides. These findings may suggest that high authenticity individuals rate self-guides as more important generally. Overall these results suggest that authenticity was connected to mood state and had a role in the process of self-regulation, but was not a moderator of the self-discrepancy/affect association. Given the large sample size of this study, even small differences can achieve statistical significance, and so these results should be interpreted with that awareness.

In terms of the moderation hypothesis, overall the findings were not consistent with predictions. The priming manipulation -- whether measured according to changes in dysphoric mood and anxious mood pre- and post-manipulation, or tested through the level of anxiety and sadness related content of the text responses -- did not appear to induce the predicted affective states. The exception was the higher level of general

negative emotion content of participants in the ought priming condition as compared to those in the control priming condition. Rather, there was an overall decrease in affect (positive and negative) from pre- to post- for all conditions. Regardless of condition, affect was less pronounced at the end of the experiment than it was at the beginning. In addition, although there was an inadvertent problem with the selection of priming stimuli for the control condition, that problem was assessed and handled. As a secondary analysis, the repeated measures ANOVA that evaluated the effect of the priming manipulation was also conducted with the individuals who received synonym terms in a separate condition. Even in this secondary analysis, the priming manipulation did not lead to statistically significant differences in post-priming affect.

The possible reasons why the priming manipulation did not achieve the hypothesized affect are many. First, other study variables or the study experience itself may have interfered with the influence on affect measures. Participants seemed generally emotionally numbed by the conclusion of the study. The duration of the study may have contributed to this effect. Second, the sample studied (recruited from two different sources: college students and a university community participant pool) may have less variability in terms of symptoms of dysphoric mood and anxious mood than others. Third, the average magnitude of self-discrepancy across the participants may not have been adequate to result in an increase in negative emotion. Self-discrepancy theory assumes that “the likelihood that a self-discrepancy will produce psychological

distress depends on its level of accessibility” (Higgins, 1989, p. 97). This suggests that discrepancies will not lead to psychological distress unless a threshold level of awareness is reached. Such a level may not have been reached for participants. Similarly, for discrepancies to activate affect they may need to be chronic indicators of regulatory failure (Klenk, Strauman, & Higgins, in press). The discrepancies primed in this study may not have met those criteria.

Based on review of the text responses themselves, participants appeared to approach the writing with a positive attitude; the text samples were largely quite positive and were generally devoid of negative self-judgment. In fact, many of the responses, particularly to the question about changes over time, displayed a sense of growth over time, which one might predict would buffer any anticipated negative mood. This observation was consistent with the higher levels of positive affect noted in the writing of ideal priming group participants. It appeared that writing about a desired ideal self was quite positive. Consistent with this, the highest levels of depressive content were noted among individuals in the control condition who wrote about guides that were not self-relevant, despite the fact that they were considered positively valenced. This effect may also have been driven by the innate bias of human beings for self-relevant information and tendency to rate self-relevant information more positively.

The act of contemplating a desired self (even if it was one from which an individual was discrepant) may itself have buffered the anticipated negative affect of

discrepancy. When self-guides were primed, relevant aspects of the actual self were likely to be activated as well. However, rather than accentuating a state of discrepancy, this study appeared to have put participants into a state of optimism. Along those lines, and as a final consideration, perhaps the experimental priming didn't so much activate discrepancies as it activated a promotion focus or a prevention focus. That is, the writing exercise may have activated a self-regulatory state which may have been protective against affective consequences.

The findings were not influenced by participants being aware of the study's purpose. Participant comments in response to the written debriefing were reviewed; a number of participants sensed that the study was about change in mood. The efficacy of the priming manipulation on post-priming mood was assessed excluding participants who described the hypothesis as change in mood: the priming was similarly ineffective. Among those with this hypothesis, most expected a downward shift in emotion; while others hypothesized it would cause a positive shift to think about self-attributes. That hypothesis seems reasonable as the self-guides participants wrote about were positively valenced.

This study also provided an opportunity to assess the hypothesis that individuals who reported higher levels of authenticity would also report authenticity-related self-guides to a greater extent and would include more authenticity-related content in their text responses. Authenticity scores were slightly negatively associated

with the likelihood of having an authenticity- related guide listed as a first ideal or ought term. This finding may have been due to the measurement of authenticity-related guides, which included the terms honest, honesty, and their synonyms. Dependable and reliable are synonyms of the word honest in the thesaurus, but those terms may have denoted something quite different to participants. For example, an individual who sought to be dependable may have submerged the true or honest self in order to be consistent for others.

Although the text responses as a group did not often speak explicitly to the idea of authenticity, they emphasized the importance of the need for social approval. Respondents often felt that a given self-guide was desirable because of its possible social benefits. These benefits included enhancing friendships, attracting romantic partners, and securing employment.

Overall, this study showed that authenticity has a distinct but modest association with mood separate from the association between self-discrepancies and mood. Experimental priming of discrepant ideal and ought self guides did not cause participants to experience acute negative mood.

6. General Discussion

This dissertation presents one possible model of the role of authenticity in the process of self-regulation. The research addressed questions about the influence of authenticity on the types of self-guides individuals hold, the magnitude of self-discrepancies, and on the associations between experiences of self-discrepancy and both chronic and acute dysphoric and anxious affect. Taken together, the current studies show evidence for an association between self-reports of individual differences in authentic behavior and both chronic and acute affect. Furthermore, these studies show that while authenticity is relevant to self-regulatory processes and may be associated with other trait-like individual difference variables (such as regulatory focus), it does not moderate the affective predictions of self-discrepancies, at least those primed within an experimental setting. Finally, these studies demonstrate that self-reports of individual differences in authentic behavior are associated with both fixed and malleable aspects of the self, including one's demographic characteristics. Authenticity is an aspect of self that seems both to be determined by and to reflect social structural position.

The theories of self-regulation reviewed in this dissertation reflected a comparator process which leads to motivational and affective consequences. Prior to this dissertation, the role of authenticity in that process had not been addressed. Authenticity was expected to be a critical moderator in that process with many potential implications. It was postulated that individuals who highly valued authenticity would

have fewer self-discrepancies, which may be an indicator that the self-guides of highly authentic individuals match the actual self fairly closely, or that individuals with high authenticity engage in self-regulation less frequently. Individuals with higher authenticity did indeed have fewer self-discrepancies but only before levels of self-esteem and need for social approval were taken into account. This suggests that individuals with high self-esteem (rather than those with high authenticity) may be more secure in themselves and less apt to engage in self-regulation, particularly regulation aimed at discrepancy reduction.

Second, it was postulated that authenticity would be a moderating variable that would help to explain associations between self-discrepancies and acute and chronic psychological symptoms. These relationships were observed and the mental health implications of authenticity were found to support the claim that choices about authenticity have costs and benefits. The potential positive and negative consequences of authenticity may not only come in the form of effects on well-being. Choices about authenticity can also have other social and personal consequences since behaving authentically in certain situations may have social costs. The positive effects of authenticity for mental health do not appear to be routed through discrepancies but instead are direct. That is, support was not found for the claim that authenticity leads to lower levels of self-discrepancies, which in turn may lead to enhanced psychological well-being. As a final point, self-discrepancies, although somewhat constant over time,

do not have the level of ubiquitousness of traits, and authenticity may have a different influence on state and trait variables.

6.1 Implications of Authenticity for Standards and Goals

The results of this dissertation suggest that authenticity does not play a significant role in influencing the types of standards and goals individuals hold, nor the likelihood that they will be able to effectively self-regulate to achieve those standards. Instead, this research suggests that self-reports of individual differences in authentic behavior have their own unique association to self-regulation. Although self-esteem and need for social approval were included in this study as control variables, and not as predictors of hypothesized interest, it appears that those variables may be associated with self-regulation in a way that authenticity is not.

In addition, review of the text responses to the priming questions revealed information about the associations among standards participants held. Responses that denoted authenticity, in a number of cases, linked authenticity to independence and confidence. The authenticity/independence link suggested that being independent fostered authenticity. The confidence link suggested that having faith in one self facilitates the ability to be authentic. As one participant stated: "It is important to be confident because otherwise you may lose yourself in society and be dragged along by the wishes and dreams of others because you'll lose your voice to say what you really want." The social benefits of attributes were commonly mentioned in responses. When

asked about the benefits of a certain self-guide, respondents often commented on the benefits of enacting that attribute socially -- for making friends, gaining romantic partners, and making one a better candidate for a job. It appears that both how individuals think of themselves (self-esteem) and the extent to which they seek to please others (need for social approval) contribute to the types of standards individuals hold, and their reasons for pursuing those standards.

6.2 Implications of Authenticity for Affect: Clinical Implications

Based on evidence from previous studies (Erickson & Wharton, 1997; Kernis & Goldman, 2005; Sheldon et al., 1997), we would expect inauthenticity to be correlated with depression. Those studies showed that feelings of inauthenticity, both globally and in specific domains, are associated with feelings of depression. The current studies replicate this finding and also demonstrate that authenticity has associations with chronic and acute affect and that it is discriminately associated with each. That is, self-reports of authentic behavior may be associated on a chronic level with depression but more transiently associated with an increased sense of in-the-moment anxiety. Choices about authenticity seem most risky in situations in which there is a tension between authentic behavior and socially approved behavior. A sense of this tension, particularly for someone who scores low on a measure of authentic behavior, may be associated with momentary distress when making behavioral choices. Authenticity's association with depression may be more complex: According to RFT, when someone is depressed,

promotion goals fail to prompt him/her to action. Subsequently, if someone is unable to engage in promotion regulation, prevention may become the individual's dominant mode. Thus, when people are depressed, they may feel disinclined from behaving authentically. The depression/authenticity association may work in both directions.

The clinical relevance of this research has a long history. Failing to be who one feels he/she should be (i.e., the ought self) has historically been considered a cause of psychological symptomatology, an idea traced to Horney (1950, as cited in Harter, 2005). In addition, early research on incongruent selves (Bruner, 1957) predicts that feelings of inadequacy and self-rejection result from an actual self/ideal self discrepancy, foreshadowing the affective predictions made by Higgins (1987) that were addressed in this research.

Although these studies relied on different participants and methodologies, the control variables of need for social approval, and to a greater degree self-esteem, emerged as powerful predictors of authenticity. Both self-esteem and need for social approval may play important roles in understanding the associations among authenticity, self-regulation, and affect.

The observations related to self-esteem suggest that it may have unique value for understanding both the ways individuals think about themselves and the ways that they relate to others. Sociometer theory suggests that self-esteem is not something that individuals maintain for its own intrinsic value but rather that it is a proxy or indicator

of how well individuals are being accepted and valued by others (which they are motivated to do) (see Leary, 1999; Leary, 2005). This suggestion may provide insights into the strong link observed between authenticity and self-esteem. Individuals may be shaped in their expression and own self-conception of an authentic self by the feedback that they receive from others. The authentic self, proposed here as a dispositional individual difference variable, may be subject to these changes.

In addition, the strong role of self-esteem in the statistical analyses, combined with the text responses, which often spoke of the desire to garner the approval of others, together suggest it may be one's sense of freedom and confidence in oneself that fuels authentic behavior. That is, the less individuals intend to garner the approval of others, the greater their ease in making choices that reflect their true desires and values.

The self-esteem/authenticity link may be working in another way to diminish the ability of those with low self-esteem to engage in emotion regulation. Individuals with low self-esteem feel less deserving of feeling good than do those with high self-esteem, and this sense of being undeserving decreases the motivation of those with low self-esteem (only) to try to feel better (Wood, Heimpel, Manwell, & Whittington, 2009). These self-views may contribute to authentic or inauthentic behavior.

Understanding authenticity suggests a few targets for clinical intervention. The first is self-esteem and the second is the need for social approval. Clinicians should consider assessing individuals' self-views as well as their need to please others.

Targeting these two variables in therapy may lead to an enhanced ability to be authentic. For other clients, behaving too 'authentically' may lead to distress and may not truly be authentic. For example, a client who says whatever he likes at a board meeting may think that doing so is a good strategy (to be myself), yet if this person also values being successful at work, a synthesis of these desires may be learning the ability to balance authentic self-expression with meeting workplace norms.

The idea of values has been threaded throughout this research. If authenticity is an individual difference variable that is displayed in attitudes and behaviors that feel genuine and represent values and beliefs, then authenticity may be more likely if people are in touch with their values and beliefs. A number of specific therapeutic approaches have been designed to do this and/or lead to this outcome. Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) helps individuals to identify their values and live in ways that reflect those values. Mindfulness meditation (see for example, Hanh, 1996) may also provide a way for individuals to get in touch with values. In addition, instruments and questionnaires exist that guide people in thinking about their values. The benefits of values-based living may include a greater sense of control over one's behavioral choices and an enhanced sense of authenticity. It has been suggested that storytelling can function as a means of identity construction (Mason-Schrock, 1996). Therapy may operate similarly by aiding an individual in identifying his/her values and creating a cohesive self-narrative.

The study of authenticity also has implications for understanding what prompts individuals to seek self-change. Studies addressing both state and trait forms of authenticity are especially warranted in this domain. A reduced sense of authenticity may be one of a number of factors that lead to the impetus to change (Kiecolt, 1994) (and highlights the need for future research to decipher whether authenticity is more relevant to depression or anxiety). A reduced state of authenticity or a decrease in one's sense of self-consistency may be observed, regardless of trait differences in authenticity. Gecas (1991) suggested that the drive towards consistency is motivated by authenticity, and that authenticity "implies a degree of stability and consistency (see Antonovsky, 1979)" (p.178). The drive for consistency may in fact be bounded by the desire for authenticity. This may be true only if self-perceptions of dissonance are really important to the individual, an additional area for clinical examination. In those cases, we might expect dissonance to be the impetus for self-change (as Kiecolt, 1994 proposes). A reduced sense of authenticity may drive the impetus to change by causing a sense of cognitive dissonance (Festinger, 1957). As a final note, there is likely a distinction between the processes of pursuing reduction of acute and more chronic discrepancies.

6.3 Expanding our Understanding of Authenticity

This research reflects the broader aims of psychological research through its examination of how an individual difference, the degree to which we think we are our true selves, contributes to understanding the observed affective consequences of self-

discrepancies. In this process, the research contributes to the field by strengthening scientific understandings of both authenticity and self-regulation. I believe that the linkages between the literatures described in this dissertation serve to deepen social-scientific understandings of how individuals elect self-guides, make self-presentational choices and negotiate aspirations and obligations. In addition, this research has addressed how individuals reflect and retain integrity in that process.

Although attention to authenticity has waxed and waned historically, a renewed interest in the construct has emerged in the last decade. The importance of this construct has been compellingly demonstrated by the empirical work addressing it, demonstrating its role in various outcomes from self-esteem to depression. The research in this dissertation asked whether individual differences in authenticity moderate the frequency and affective consequences of self-discrepancies. Although this hypothesis was not supported, the research program has laid the groundwork for understanding the potential of authenticity within the process of self-regulation.

This research was not without limitations. Limitations to Study 1 include the cross-sectional design of the study and, to some extent, reliance on self-report data. The cross-sectional design limits the ability to unravel whether the authenticity/affect linkage is merely a reflection of the state of the individuals with higher depression and anxiety. That is, perhaps individuals with greater levels of depression and anxiety are making cognitive distortions that influence the ways in which they evaluate their behavior, and

the extent to which it is being influenced by their need to keep the peace or to present a false front to gain something. Limitations to Study 2 include the potential bias of participants to report mood positively and a social desirability bias. In addition, the computer design of this study may have reduced the extent to which individuals noticed their self-guides as discrepant. That is, in an interview setting, respondents may have had greater awareness that they were not achieving a desired self-guide. In addition, whereas the hypotheses and discussion were presented in terms of a model in which authenticity was an “independent variable” (i.e., influencing other variables), neither Study 1 nor Study 2 were designed in such a way as to render a causal interpretation of findings as the only possible interpretation. Nonetheless, from a developmental perspective such an interpretation is both plausible and potentially useful. Further tests of authenticity may also be warranted- longitudinal data collection has special promise for understanding authenticity broadly and within the context of self-regulation.

These findings, however, raise several interesting areas for future research. Specifically, the findings raise the question of when authenticity is at stake in responding to self-discrepancies. That is, can one be behaviorally inauthentic and motivationally authentic? It might be expected that this would depend on the individual’s value hierarchy: that individuals will prioritize reducing whichever discrepancy is more distressing – be it behavior or motivation. On a different topic, and returning to regulatory focus, are there modes of reducing dissonance that are distinctly

prevention modes or promotion modes? Do authenticity styles and regulatory styles work together interactively in the process of self-regulation? How is authenticity associated with personality, as measured by the NEO Personality Inventory?

Overall these results suggest that authenticity is an important aspect of the self that may be associated with mood and self-concept and that has potential costs and benefits. I have shown that authenticity is associated with success using a promotion worldview, focusing on “making good things happen.” In addition to showing that authenticity is associated with less negative mood, I have shown that authenticity also has potential costs. That is, higher levels of self-discrepancy are more distressing for those with higher levels of authenticity. This suggests that authenticity has relevance for understanding self-concept, mood, and emotion.

Self-regulation is undoubtedly a rich and complex process. It is ongoing and moment-to-moment. Self-regulation is associated with how we negotiate life and what we are capable of achieving. Authenticity has a role in the process. Authenticity is an aspect of the self that is ongoing and has moment-to-moment relevance. It is an individual difference variable that, like regulatory orientation, reflects how we have been socialized, and the strategies we prefer. By determining that authenticity does not moderate the affective consequences of experimentally primed self-discrepancies we can begin to understand authenticity’s distinct and unique influence on self-regulation and emotion.

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Wood, A. M., Linley, P. A., Maltby, J., Baliousis, M., & Joseph, S. (2008). The authentic personality: A theoretical and empirical conceptualization and the development of the authenticity scale. *Journal of Counseling Psychology, 55*, 385-399.

Biography

Alexis T. Franzese was born in Smithtown, New York on September 28th, 1979. Alexis received her Bachelor's Degree from Union College in Schenectady New York in 2001, where she completed her Honors thesis in Sociology (her major) and graduated *cum laude* with minors in Psychology and History. Alexis began her studies at Duke in the fall of 2001 in the department of Sociology and in fall of 2004 began simultaneous enrollment in the Clinical Psychology program. Since beginning at Duke she has completed her M.A. (Sociology, 2003), Ph.D. (Sociology, 2007), and M.A. (Psychology, 2008).

Alexis' publications:

- Franzese, A.T. (2009). Authenticity: Disciplinary perspectives and dynamic experiences. In P. Vannini, & J.P. Williams (Eds.), *Authenticity in culture, self and society* (pp. 87-101). London: Ashgate.
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- Franzese, Alexis T. 2008. Addiction. In *International Encyclopedia of the Social Sciences*, 2nd edition, (Vol.1, pp. 20-22). Detroit: Macmillan Reference USA.
- Franzese, Alexis T. 2008. Self-Presentation. In *International Encyclopedia of the Social Sciences*, 2nd edition, (Vol. 7, pp.423-424). Detroit: Macmillan Reference USA.
- Dupre, M.E., Franzese, A.T., & Parrado, E.A. 2006. The effect of religious involvement on the black/white mortality crossover in late life. *Demography*, 43, 141-164.

Over the course of her graduate education, Alexis was awarded the following academic honors:

Summer Research Fellowship, Graduate School (2005, 2008, 2010)

Graduate Student Mentoring Award, Duke University (2009)

Kenan Institute for the Study of Ethics Fellowship, Duke University (2008-2009)

Women in Science and Engineering, Outstanding Woman Leader Award

Nominee, Duke University (2008)

Spencer Discipline Based Scholarship in Education Program (DBSE) (2007-2008)

Child Policy Summer Research Assistantship, Center for Child and Family Policy, Duke University (2007)

Graduate Teaching Scholar Award, Department of Sociology (2006)

Center for Child and Family Policy Fellowship, Duke University (2005-2006)

Kenan Institute for the Study of Ethics Fellowship, Duke University (2005-2006)

Scholarship Development Award, Midwest Sociological Society (2005)

Aleane Webb Dissertation Research Fellowship, Graduate School (2005)

Awardee, NIDA Transdisciplinary Prevention Research Center (2004-2005)

Preparing Future Faculty Program Fellow (2003-2004)

Mini-grant Fellowship, Center for Teaching, Learning, and Writing, Duke University (2003-2004)

Conference Travel Awards, Departments of Sociology, Psychology, Women's Studies, and from the Graduate School, Duke University (2002-2005)

Leadership in an Aging Society Internship Program, Duke University (2002)

Honorable Mention, National Science Foundation Graduate Research Fellowship Competition (2002)

Graduate Award Fellowship, Department of Sociology (2001-2002)

Alexis currently resides in Durham with her husband, Thomas, their son Brennan, daughter Hannah, cat (Cleo) and dog (Joelle).