

Thine Own Self: True Self-Concept Accessibility and Meaning in Life

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A number of philosophical and psychological theories suggest the true self is an important contributor to well-being. The present research examined whether the cognitive accessibility of the true self-concept would predict the experience of meaning in life. To ensure that any observed effects were due to the true self-concept rather than to the self-concept more generally, the authors used actual self-concept accessibility as a control variable in all studies. True and actual self-concepts were defined as including those traits that are enacted around close others vs. most others (Studies 1 through 3) or as traits that refer to “who you really are” vs. “who you are during most of your activities” (Studies 4 and 5), respectively. Studies 1, 2, and 4 showed that individual differences in true self-concept accessibility, but not differences in actual self-concept accessibility, predicted meaning in life. Studies 3 and 5 showed that priming traits related to the true self-concept enhanced perceptions of meaning in life. Implications for the study of the true self-concept and authenticity are discussed.

Keywords: true self, meaning in life, cognitive accessibility, self-concept

There is but one cause of human failure. And that is man’s lack of faith in his true self.

—William James

The notion that there is such a thing as a true self is common and familiar in Western society (W. T. Anderson, 2004; Schneider, 1999, 2004). Folk wisdom admonishes us to “just be yourself.” And sources as diverse as Shakespeare (“To thine own self be true”) and Janis Joplin (“Don’t compromise yourself. You are all you’ve got”) advise us to behave in accord with the impulses of a true self. People often speak of a need to “find themselves” or of the process of discovering who they “really are.” Similarly, discovering one’s true self is a prevalent theme in books, movies, and music. Inherent in the idea of a true self is that people see themselves as having both an outer layer and an inner core that is not necessarily reflected in that outer layer (see Johnson, Robinson, & Mitchell, 2004).

The idea of a true self has a long-standing history in philosophical thought as well. Among the ancient Greeks, to “know thyself” (inscribed on the temple of Apollo) was considered a central imperative (Norton, 1976; Pojman, 2006). Aristotle’s (350 BCE/1998) conception of “eudaimonia” refers to a life that is lived in truth with one’s “daimon” (essentially one’s spirit). This highest form of human excellence is experienced through the enactment of one’s “truest and best nature” (Johnston, 1997). Similarly, Norton (1976) described eudaimonia as “meaningful living conditioned upon self-truth” (p. xi). Existential philosophers, such as Sartre,

Kierkegaard, Heidegger, and Buber, also stressed the importance of the authentic self in living a fulfilling life (Macquarrie, 1972). As Kierkegaard (1849/1983) once succinctly wrote, “to will to be that self which one truly is, is indeed the opposite of despair” (p. 3).

In the present studies, we examine the connection between the true self and an opposite of despair, the experience of meaning in life. Drawing on diverse psychological theories as well as evidence from the social cognitive literature, we propose that the true self-concept (or a person’s avowed true self) serves as an important source of meaning in life. Thus, the more cognitively accessible this self-concept is to the individual, the more the individual should benefit from the perspective it fosters. Whereas eudaimonic, humanistic, existential and psychodynamic perspectives on the role of the true self in psychological functioning provide a basis for hypotheses, social cognitive research and theory informed the methods we used to assess and manipulate the cognitive accessibility of the true self-concept. Before describing the studies, we provide a brief overview of theoretical conceptions of the true self and its role in human functioning.

The True Self in the Psychological Sciences

A variety of personality theorists have considered the role of an inner core or true self in psychological functioning. Freud (e.g., 1949, 1961) took a somewhat ambivalent stance regarding the importance of the true self to psychological health. Although the goal of psychoanalysis was to bring unconscious conflicts into awareness, for Freud, the hidden truth of human nature was a potentially threatening box of amoral sexual drive. Thus, for Freud, if we were fully aware of the inner core of human nature, then we might, like Oedipus, rip out our eyes. Yet, in various ways the notion that there is value in awareness of the true self has been explicitly included in many theoretical approaches to personality (Horney, 1942, 1950; Jung, 1953; Laing, 1960; Miller, 1979; Rogers, 1951; Winnicott, 1960). Though differing in many ways, these theories converge on a central theme; that is, discovering (or

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rediscovering) and expressing the true self is crucial to psychological health. Represented in these theories is the notion that “losing touch” with one’s true self (e.g., because of parental or societal demands) is a source of considerable human misery. Thus, it seems reasonable to expect that the true self should be related to well-being. Empirical work provides support for these intuitively appealing ideas.

Recent work based on self-determination theory conducted by Kernis and Goldman (2004, 2006; see also Goldman & Kernis, 2002) has systematically examined the expression of the true self through the construct of authenticity. Kernis and Goldman define authenticity as the unimpeded functioning of one’s true self in daily life and have found that self-reported authenticity is positively related to such important outcomes as self-actualization, self-concept clarity, and self-esteem, and negatively related to psychological distress. Similarly, other studies of authentic expression have shown that self-reported levels of authentic behavior are positively related to subjective well-being, self-esteem, positive affect, and hope (Bettencourt & Sheldon, 2001; Harter, Marold, Whitesell, & Cobbs, 1996; Neff & Suizzo, 2006; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997).

A separate line of work conducted by Schimel, Arndt, Pyszczynski, and Greenberg (2001; Schimel, Arndt, Banko, & Cook, 2004; see also Arndt & Schimel, 2003; Arndt, Schimel, Greenberg, & Pyszczynski, 2002) has demonstrated that validation of one’s true self (or in their terminology, one’s “intrinsic self”) leads to less defensiveness in a variety of domains. For example, having participants visualize somebody who accepts them noncontingently (i.e., “for who they really are”) leads to less downward social comparison, distancing from a negative other, self-handicapping, and conformity.

The True Self as a Source of Meaning in Life

A number of perspectives converge to suggest that one’s sense of who one is at the core may be a potent source of meaning. As existential philosophers have long maintained, coming to a deeper realization of who one is beneath the veneer of social trappings is what imbues life with a sense of authentic purpose. For example, Frankl (1959) argued that one of the fundamental purposes of his logotherapy is to help people in this search. Similarly, scholars of eudaimonic well-being consider meaning in life to be a central component of human flourishing and argue that meaning in life can be separated from hedonic functioning by its association with authentic self-expression (Keyes & Haidt, 2003; McGregor & Little, 1998; Waterman, 1984). Thus, from this perspective, expression of the self provides an important basis for experiencing meaning in life (Ryan & Deci, 2001; Ryff & Singer, 2008; Waterman, 1993, Waterman, Schwartz, & Conti, 2008).

These messages from philosophers and psychologists alike, as noted at the outset, are also widely represented in Western culture, suggesting the internalization of the notion that acting in accord with the inner self is a key to fulfillment. This internalization may have been, in part, driven by important historical changes that have shaped modern society. Scholars have long commented on how the erosion of culturally embraced, structured sources of meaning has left the individual with the primary responsibility of fashioning a meaningful life (e.g., Becker, 1971; Frankl, 1959; Fromm, 1941/1969). Baumeister (1991) has more recently made similar argu-

ments. Whereas past societies provided their members with widely agreed upon value bases, such as religion or tradition, that offered clear direction for how one should live a valuable life, in modern society, people are confronted with more responsibility to decide for themselves the answers to the fundamental questions of what is right and wrong, what is good and bad, and what is worthwhile or not. In Frankl’s words, people are increasingly faced with an “existential vacuum.”

These perspectives note that with the lack of a common value base to appeal to, human beings began to look to their individuality for answers. Choices and actions are thus judged in terms of how they make the self feel, and those acts that make the inner self feel good are deemed valuable. As Baumeister (1991) has stated,

the self exports a considerable amount of value, for personal relationships and work and other activities depend on the self for their justification. Thus, the self provides legitimacy and justification to other things without itself needing a higher source of value. (p. 107)

Empirical work offers further insights.

For example, Bellah, Madsen, Sullivan, Swidler, and Tipton (1985) reported that when asked to justify their life decisions, many Americans could not do so without reference to the self, leading these researchers to conclude that “each self constitutes its own moral universe” (p. 76). McGregor and Little (1998) found that the extent to which personal projects reflected core aspects of the self (e.g., one’s traits, competencies, goals, and values) predicted the experience of meaning in life. Similarly, Debats, Drost, and Hansen (1995) had participants describe a time in their life when they felt that their life was meaningful as well as a time in their life when they felt life seemed meaningless. Content analysis of the narratives revealed the narratives often expressed that meaning was experienced when the participants felt a sense of contact with the self, such as “Life has more meaning to me in those moments that I am close to my feelings and I don’t cling to expectations and duties anymore” (p. 368). Finally, the extent to which people believe their behavior is authentic positively relates to judgments of meaning (Kernis & Goldman, 2006).

Thus, there appears to be something unique about the relationship between core elements of the self and the experience of meaning. Meaning is not obtained simply from performing well, but from feeling that one is in touch with and enacting goals that are expressions of who one believes he or she really is (see also Waterman, 1993). According to these theoretical accounts and empirical evidence, the true self should then be connected to a number of other sources of meaning such as close relationships, goals, and authentic behaviors. This is not to say that relationships and goals are not meaningful in and of themselves, but rather that the true self provides each person with a unique “life philosophy” that can be used to make decisions about what relationships, behaviors, and goals are valuable as well as the relative importance of these to each other, thus imbuing these other life activities and pursuits with meaning and value.

The Accessibility of the True Self-Concept

We propose that the true self serves as a wellspring for meaning by exporting feelings of legitimacy, importance, and value to other aspects of life (relationships, behavior, goals, work, etc.). As such, we might expect that the true self itself is an important source of

meaning in life. Previous studies suggest that the relative cognitive accessibility of a meaning source relates to the extent to which people judge life as meaningful (King, Hicks, Krull, & Del Gaiso, 2006). Thus, if the true self is indeed an important source of meaning, then the extent to which it is cognitively accessible should relate to perceptions of meaning in life. On the basis of this idea, we hypothesized that both individual differences in accessibility and manipulated accessibility (e.g., via priming techniques) of the true self would influence perceptions of life's meaning.

It is worth noting that the theories upon which our hypotheses rest regard the true self as a potentially unconscious, core aspect of the person from whom spontaneous behaviors and motivations arise. This core self might be difficult, if not impossible, to operationalize directly. So instead, we focused on the true self-concept, or the person's avowed "true self" and its components. The *true self-concept* may be defined as a cognitive schema representing those aspects of the self that are considered, by the person, to be most emblematic of his or her true nature. Of course, the individual's assessment of the contents of the true self may not coincide with a person's "real" true self. Although this is clearly a more circumscribed concept than the true self as treated in classic personality theories, this definition allows us to measure and manipulate true self-concept accessibility using contemporary reaction time and priming methods.

Thus, the present investigation differs from past theory and research in that we focused on the role of the cognitive accessibility of the true self-concept rather than the discovery, expression, or validation of the true self. More specifically, we suggest that when those characteristics that comprise the true self-concept are readily accessible, life is experienced as more meaningful.

Overview of Studies

In the present studies, we examine whether the true self-concept does indeed serve as a valuable source of meaning in life. In five studies, participants identified traits that they believed described their true selves. Reaction times to these descriptors in "me-not me" judgment paradigms were used to examine individual differences in accessibility of the true self-concept in Studies 1, 2, and 4, and priming of these traits was used to manipulate the accessibility of the true self-concept in Studies 3 and 5. For all studies, we predicted that heightened accessibility of the true self-concept (whether naturally occurring or manipulated) would relate to enhanced meaning in life.

Testing these predictions required the selection of an appropriate control condition—some way to ensure that observed effects were due to the unique link between the true self-concept (and not simply the self in general) and meaning in life. In the present studies, we used the "actual self" to provide such a comparison. This approach follows that used by Bargh, McKenna, and Fitzsimmons' (2002) examination of the accessibility of the true self-concept (defined as those characteristics that you possess and would like to express socially, but are not always able to, for whatever reason . . . those traits you are able to express around those people you are closest to) and the actual self-concept (defined as those characteristics that you possess and are often able to express to others in social settings).¹

In Bargh et al.'s (2002) study, participants interacted with a partner, either over the Internet or face-to-face, and then completed

Markus's (1977) "me/not me" task for words that were previously judged as descriptive of the true or actual self-concept. The latency for responding served as an indicator of the relative accessibility of self-concepts, such that faster reaction times indicate greater accessibility (Bargh & Chartrand, 2000). Bargh and colleagues (2002) showed that the accessibility of the true self-concept differed on the basis of whether participants interacted with a partner face-to-face or over the Internet (Study 1). Participants in the Internet interaction condition responded faster to words that described the true self compared with their counterparts who interacted face-to-face. The authors interpreted these findings as evidence that people felt more comfortable being who they really are over the Internet and that such interactions activate the true self-concept.

Overview and Predictions for Study 1

In Study 1, participants selected traits that described their true and actual selves and then completed timed me/not me judgments for those traits and control words. We predicted that quicker reaction times to true self-concept traits (or true self-concept accessibility) would relate to higher meaning in life after controlling for actual self-concept accessibility. Additionally, we examined whether the relationship between true self-concept accessibility and meaning in life would remain significant even after controlling for other important sources of meaning in life, including positive affect (King et al., 2006) and basic psychological need satisfaction (Ryan & Deci, 2000).

It is also important to consider the possibility that the true self-concept is psychologically important simply because it is composed solely of those aspects we like the best about ourselves or even of unrealistically positive self-views. Recall that the classic notion of eudaimonia refers to living one's true nature, but also one's best nature (Ryff & Singer, 2008). The true self, then, might reflect especially positive aspects of self, or one's ideal self (Higgins, 1987). Furthermore, considering whether meaning in life is related to the accessibility of one's true self-concept implicates the debate on the role of positive illusions in healthy human functioning (Taylor, Brown, Colvin, Block, & Funder, 2007). Does the true self reflect oneself "warts and all?" To address this issue, we also explored the contents of participants' true and actual self-concepts. No specific hypotheses were made regarding whether the true self is more positively imbued than the actual self and whether this explains the potential benefits of true self-concept accessibility for meaning in life.

¹ The *actual self* refers to how one behaves around most other people because Rogers (1951) believed that most people only feel comfortable expressing their true selves around close others and keep them hidden during most of their daily activities. Thus, the term "actual self" might best be thought of as a public self. However, to maintain continuity with previous research adopting this approach (e.g., Bargh et al., 2002), we use the term *actual self*.

Study 1

Method

Participants

Fifty-nine participants (30 women, 29 men) enrolled in an introductory psychology course at the University of Missouri participated for partial fulfillment of a course requirement. Ages ranged from 18 to 22 ($M = 19.11$, $SD = 1.12$). Represented ethnicities included 82% European American, 9% African American, 4% Hispanic American, and 5% Asian American.

Materials and Procedure

True/actual self-concept trait lists. Participants came into the lab in groups of 1–4. Each participant was greeted individually and escorted to a private cubicle that contained a desk and a computer. Participants completed a true and actual self-concept measure adapted from Bargh et al. (2002). The measure consisted of a list of 60 trait words taken from N. H. Anderson's (1968) normative likeability ratings. The list contained equal numbers of normed positive, neutral, and negative words. Participants were instructed to circle 10 words that they felt were indicative of their "true self" and underline 10 that were indicative of their "actual self." Following Bargh et al., the true self was defined as "those characteristics that you possess and would like to express socially, but are not always able to, for whatever reason. Think of only those traits you are able to express around those people you are closest to," and the actual self was defined as "those characteristics that you possess and are often able to express to others in social settings." Participants were additionally instructed to choose different descriptors for each self (i.e., the same trait could not be chosen as both a true and actual self descriptor).

Meaning in life. Participants also completed a battery of questionnaires, including a variety of questionnaires unrelated to the purpose of the study to help alleviate suspicion about the study's hypothesis. To assess meaning in life, participants completed the five-item Presence of Meaning subscale of the Meaning in Life Questionnaire (MLQ; Steger & Frazier, 2005). The MLQ consists of the Presence of Meaning and Search for Meaning subscales. Each subscale has shown convergent and discriminant validity as well as high test–retest reliability (Steger, Frazier, Oishi, & Kaler, 2006; Steger & Kashdan, 2007). Because the present studies are exclusively interested in the experience of meaning, only the Presence subscale was administered. Sample items from the MLQ Presence subscale include "I understand my life's meaning," "I have a good sense of what makes my life meaningful," and "My life has no clear purpose," (reversed scored) ($M = 4.52$, $SD = 1.19$; $\alpha = .84$). All items were rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Psychological need satisfaction. Participants also completed the 21-item Basic Psychological Needs Scale (Gagné, 2003). The Basic Psychological Needs Scale assesses the extent to which participants' needs for competence, relatedness, and autonomy are currently satisfied. Satisfaction of these psychological needs has been shown to be positively associated with well-being (Ryan & Deci, 2000) and theorized to contribute to the experience of meaning in life (Ryan & Deci, 2001). Examples of items assessing competence include "Most days I feel a sense of accomplishment

from what I do," and "I have been able to learn interesting new skills recently" ($M = 5.05$, $SD = 0.78$, $\alpha = .79$). Examples of items assessing relatedness include "I get along with people I come into contact with" and "People in my life care about me" ($M = 5.66$, $SD = 0.72$, $\alpha = .83$). Examples of items assessing autonomy include "I feel like I am free to decide for myself how to live my life" and "I feel like I can pretty much be myself in my daily situations" ($M = 5.08$, $SD = 0.74$, $\alpha = .67$). A composite need satisfaction score was then created by averaging the three subscales ($M = 5.27$, $SD = 0.60$, $\alpha = .70$). Items were rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Mood. At the end of the packet of questionnaires, participants rated six positive (e.g., *happy, joy, pleased*) and six negative (e.g., *bored, depressed, anxious*) mood adjectives to provide a measure of positive affect (PA) and negative affect (NA) ($M = 3.93$, $SD = 1.39$, $\alpha = .82$, for PA; $M = 2.88$, $SD = 1.15$, $\alpha = .80$, for NA; Diener & Emmons, 1984). For this study, participants were instructed to rate how much they were experiencing the particular emotion "right now." Mood items were also rated on a scale ranging from 1 (*not at all*) to 7 (*extremely much*).

Me/not me task. Finally, to test the accessibility of the true and actual self-concepts, participants completed the Markus's (1977) me/not me task. Stimuli were presented on a computer screen using DirectRT precision timing software (Version 2004.1.037) and MediaLab (Version 2004) software. In this task, participants were asked to respond as quickly as possible to a series of personality traits that were presented on the screen one at a time in succession. Specifically, participants were asked to decide whether the presented word was self-descriptive by pressing a key labeled either "Me" (Z) or "Not Me" ("slash"). The shortened latency of response times in this type of task has been argued to be indicative of greater self-concept accessibility (Bargh et al., 2002). All of the 60 trait words from the true/actual self trait lists were presented in random order. Each word appeared on the computer screen until the participant responded. After each response, there was a 1-s delay before the next trial. There were eight practice trials using words from the N. H. Anderson (1968) list that were not on the true/actual self measure, followed by the 60 experimental trials.

Results

Preliminary Analyses

Three participants were dropped from all analyses due to their suspicion regarding the nature of the experiment. Consistent with typical procedures in the literature, all reaction times were log transformed to reduce skew, and response times more than 2.5 standard deviations away from the mean were dropped. We created composite scores for the true and actual self-concept items by averaging the response times for all items rated as indicative of the particular self-concept ($M = 1131.66$, $SD = 253.68$ for true self; $M = 1110.24$, $SD = 253.46$ for actual self).² We also created a composite control score by averaging the response times for all traits from the 40 control words to which participants responded "Me" ($M = 1466.77$ ms, $SD = 280.92$). A repeated measures

² As expected, the overwhelming majority of responses to true and actual self traits were classified as "me" (in all studies, greater than 95%). As such, all response times were included in the composites.

analysis of variance (ANOVA) revealed significant differences in response time to the self-descriptors, $F(2, 54) = 73.03, p < .001$. Pairwise comparisons revealed that participants were significantly faster to respond to both the true and actual self-concept words compared with the control “Me” words ($ps < .001$).

To control for a participant’s general speed of responding (an irrelevant individual-difference variable), we created two new variables to represent self-concept accessibility by regressing the true self-concept composite and the actual self-concept composite onto the control composite (Robinson, 2007). The standardized residuals from these analyses served as the predictors in the primary analyses. These residual scores represent the variance that is specific to the accessibility of the self-concept of interest. For example, participants with a negative true self-concept residual score categorized their true self-concept words faster than they categorized the control traits, suggesting that their true self-concept is highly accessible. To make the results more intuitively understandable, we reversed the residual scores so that higher scores indicate greater self-concept accessibility. From this point, these variables are simply referred to as *true self-concept accessibility* and *actual self-concept accessibility*.³

To control for the overall social desirability of the traits, we created actual and true self-concept desirability scores by averaging the likeability ratings (N. H. Anderson, 1968) for each self-concept ($M = 3.54, SD = 0.53$ for true self; $M = 3.97, SD = 0.47$ for actual self). Notably, a t test revealed that the true self-concept traits were significantly less socially desirable than the actual self-concept traits, $t(55) = -4.14, p < .001$.

Primary Analyses

Correlations. Table 1 shows the zero-order correlations for the variables of interest. As predicted, true self-concept accessibility was positively related to meaning in life. In addition, true self-concept accessibility and actual self-concept accessibility were positively related to their respective social desirability ratings. True self-concept accessibility and actual self-concept accessibility were unrelated, suggesting that these represent independent constructs.

Multiple regression. We used a simultaneous regression to test the effect of true self-concept accessibility on meaning in life. We entered actual self-concept accessibility, PA, NA, psychological need satisfaction, and the social desirability of the self-concepts as covariates. These effects produced a significant change in R^2 ($\Delta R^2 = .28, p < .05$), with need satisfaction ($\beta = .37, p < .01$) and true self-concept accessibility ($\beta = .29, p < .05$) associated with enhanced meaning in life. Actual self-concept accessibility was unrelated to meaning in life ($p > .10$).⁴

Discussion

These findings support the idea that true self-concept accessibility is associated with enhanced meaning in life. Specifically, faster responses to true self descriptors were associated with higher meaning in life. Notably, this was true even after controlling for other known sources of meaning (PA and psychological need satisfaction), the social desirability of both self-concepts, and actual self-concept accessibility.

Although the results of Study 1 are encouraging, the study was potentially limited by the fact that participants did not have the

opportunity to choose their own true and actual self descriptors. Thus, it is possible that some of the traits chosen were not necessarily exemplary descriptors of participants’ beliefs about their true or actual selves. The central aim of Study 2, therefore, was to replicate the previous findings using participants’ self-generated descriptors.

Overview and Predictions for Study 2

In Study 2, participants first completed the need satisfaction measure and listed traits that described their true and actual selves. Approximately 1.5 months later, participants were brought into the laboratory where they completed measures of mood, meaning in life, and a me/not me task similar to the task used in Study 1. In Study 2, however, the words used in the me/not me task were tailored for participants using their self-generated true and actual self descriptors as response targets. It was predicted that, replicating Study 1, true self-concept accessibility would be associated with enhanced meaning in life even after controlling for mood and need satisfaction. Additionally, we assessed the valence of the contents of people’s true selves to again examine potential positivity biases in the true self-concept. On the basis of the findings of Study 1, we predicted that the true self-concept accessibility would remain a significant predictor of meaning in life after controlling for actual self-concept accessibility, likeability of the true self-concept, and other sources of meaning in life (PA, NA, and need satisfaction).

Study 2

Method

Participants

Sixty-eight participants (49 women, 19 men) enrolled in a personality psychology course at the University of Missouri participated for extra credit. Ages ranged from 18 to 25 ($M = 20.08, SD = 1.54$). Represented ethnicities included 87% European American, 7% African American, 5% Hispanic American, and 1% Asian American.

³ To ensure that any subsequent results were not due to this residualization procedure, we examined the correlations between the raw mean reaction times and meaning in life. The correlations indicated that reaction times for true self-concept words were significantly related to meaning in life ($r = .35, p < .05$), whereas reaction times for actual self-concept words were not ($r = .21, p > .10$).

⁴ Additional analyses tested for gender effects. Gender was neither a significant predictor of meaning in life nor did it interact with true self-concept accessibility or actual self-concept accessibility to predict meaning in life ($ps > .78$). Gender was also tested as a possible moderator in all subsequent studies. The only significant interaction was found in Study 2, showing a significant Gender \times True Self-Concept Accessibility interaction predicting meaning in life ($p < .05$). This analysis revealed that the relationship between true self-concept accessibility and meaning in life was significant for both men and women ($p < .05$) but was stronger for men. However, these results should be interpreted with caution considering no gender effects were found in other studies and there were only 14 men in Study 2.

Table 1
Correlations Among Measures in Study 1

Variable	1	2	3	4	5	6	7	8
1. Positive affect	—	-.55**	.13	.07	.09	-.12	.39**	.25
2. Negative affect		—	-.05	-.21	.02	.01	-.18	-.18
3. TS desirability			—	-.21	.35**	-.04	.06	.17
4. AS desirability				—	-.09	.28*	.34**	.02
5. TS accessibility					—	.04	.18	.34**
6. AS accessibility						—	.21	.13
7. Total need sat.							—	.39**
8. Meaning in life								—

Note. $N = 56$. TS = True Self; AS = Actual Self; sat. = Satisfaction.

* $p < .05$. ** $p < .01$.

Materials and Procedure

True/actual self descriptions. At the beginning of the semester, participants completed a large packet of questionnaires. For one of the measures, participants listed 10 traits that described their true selves and 10 traits that described their actual selves. These two aspects of the self were defined in the same way as in Study 1. Participants were additionally instructed to list different descriptors for each self.

Psychological need satisfaction. Participants also completed the Basic Psychological Needs Scale (Gagné, 2003) to assess autonomy ($M = 4.76$, $SD = 0.76$, $\alpha = .75$), competence ($M = 5.01$, $SD = 0.97$, $\alpha = .84$), and relatedness ($M = 5.69$, $SD = 0.88$, $\alpha = .81$) need satisfaction. All items were rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A composite need satisfaction score was created by averaging the three subscales ($M = 5.15$, $SD = 0.72$, $\alpha = .76$).

Meaning in life and mood measures. Approximately 1.5 months after completing the questionnaire packet, participants attended a laboratory session. Upon arrival, participants completed a variety of questionnaires that were used in Study 1, including the Presence subscale of the MLQ ($M = 5.23$, $SD = 1.19$, $\alpha = .83$) and a measure of state PA ($M = 5.11$, $SD = 0.93$, $\alpha = .84$) and state NA ($M = 2.99$, $SD = 1.05$, $\alpha = .79$). All items were rated on a scale ranging from 1 (*not at all*) to 7 (*extremely much*).

Me/not me task. After completing the questionnaires, participants completed a me/not me task similar to the task administered in Study 1. The present task, however, was tailored for the participants by incorporating their true and actual self-concept descriptors. In addition to these self-generated traits, 40 control words, selected from N. H. Anderson's (1968) normative likeability ratings, were embedded in the task. Like Study 1, the trait words were presented in random order, and each word appeared on the computer screen until the participant responded. After each response, there was a 1-s delay before the next trial. Eight practice trials were followed by the 60 experimental trials. Although the instructions asked participants to list different words for each self, some participants listed some overlapping words. For consistency across participants, these overlapping words were not included in the task.

Finally, two independent raters rated the desirability of the true and actual self-concept descriptors using N. H. Anderson's (1968) likeability ratings as a guideline. Interrater agreement was adequate ($r = .78$).

Results

Preliminary Analyses

We created desirability ratings by averaging the raters' scores for each self-concept ($M = 4.05$, $SD = 0.73$ for true self; $M = 4.10$, $SD = 0.60$ for actual self). In contrast to Study 1, no differences in likeability emerged between the true and actual self-concept traits ($p > .10$).

We created composite reaction times using the same procedures as reported in Study 1. Results of a repeated measures ANOVA revealed the response times were significantly different from each other, $F(2, 66) = 21.47$, $p < .01$. Pairwise comparisons revealed that participants were significantly faster to respond to both actual self-concept words ($M = 954.42$ ms, $SD = 245.79$) and true self-concept words ($M = 988.85$ ms, $SD = 386.71$) compared with the control ("me") words ($M = 1090.41$ ms, $SD = 258.59$; $ps < .01$). True and actual self-concept reaction times did not differ from each other ($p > .10$).⁵

Also following the procedures from Study 1, we created standardized residual scores by regressing the true self-concept composite and the actual self-concept composite on the control "me" composite scores. These residual scores were then reversed before serving as the predictors in the primary analyses (true self-concept accessibility and actual self-concept accessibility).

Primary Analyses

Correlations. Table 2 presents the zero-order correlations for the variables in this study. As in Study 1, true self-concept accessibility shared a significant relationship with meaning in life. Additionally, true self-concept accessibility was negatively associated with NA and positively associated with true self-concept desirability ratings. Actual self-concept accessibility was positively associated with actual self-concept desirability and negatively associated with true self-concept desirability. Again, true self-concept accessibility and actual self-concept accessibility were not related.

⁵ We again examined the correlations between these mean reaction times and meaning in life. The correlations indicated that reaction times for true self-concept words were significantly related to meaning in life ($r = .48$, $p < .05$), whereas reaction times for actual self-concept words were not ($r = .18$, $p > .10$).

Table 2
Correlations Among Measures in Study 2

Variable	1	2	3	4	5	6	7	8
1. Positive affect	—	-.41**	.13	.22	.10	-.02	.60**	.31**
2. Negative affect		—	-.22	-.20	-.30**	-.05	-.42**	-.29*
3. TS desirability			—	-.01	.38**	-.26*	.23	.36*
4. AS desirability				—	.06	.32**	.37**	.23
5. TS accessibility					—	-.09	.15	.34**
6. AS accessibility						—	.16	-.09
7. Total need sat.							—	.44**
8. Meaning in life								—

Note. $N = 68$. TS = True Self; AS = Actual Self; sat. = Satisfaction.

* $p < .05$. ** $p < .01$.

Multiple regression. To examine the contribution of true self-concept accessibility to meaning in life, we computed a simultaneous regression. Actual self-concept accessibility, PA, NA, psychological need satisfaction, and true self and actual self-concept likeability ratings served as control variables. These effects contributed to a significant change in R^2 ($\Delta R^2 = .35, p < .01$), with true self-concept accessibility ($\beta = .24, p < .05$) and psychological need satisfaction ($\beta = .32, p < .05$) predicting enhanced meaning in life. These findings replicate those of Study 1, further suggesting that accessible knowledge of one's true self-concept is associated with the perception that one's life is meaningful.

Discussion

The present results converge with the Study 1 findings to further suggest that the accessibility of the true self-concept is associated with a greater sense that life is meaningful. Of course, a critical limitation of Studies 1 and 2 is that the correlational nature of the designs precludes an assessment of whether true self-concept accessibility leads to meaning in life or simply covaries with judgments of meaning. Indeed, the alternative causal direction is, perhaps, equally compelling (i.e., that individuals high in meaning in life experience a greater awareness of the true self-concept). More definitive evidence is needed to understand the potential causal role of true self-concept accessibility in meaning in life. To the extent that the true self-concept serves as an important source of meaning, activation of this concept (even in the absence of awareness) should positively influence judgments of meaning in life. We addressed this issue in Study 3 by using suboptimal priming as an implicit means of manipulating the accessibility of the true self-concept.

Research has often examined how self-related primes elicit schema-consistent behavior such as extraversion and aggression (Bargh, Chen, & Burrows, 1996; Carver, Ganellen, Froming, & Chambers, 1983; Fazio, Effrein, & Falender, 1981). Additionally, an extensive literature has examined how priming certain types of self-standard discrepancies (e.g., actual-ideal; Higgins, 1987, 1989) can engender specific classes of affect. Unlike this previous work, the primes in the present study share only a theoretical connection with the hypothesized outcome. Thus, the present study presents a unique opportunity to observe the effects of nonconscious self-concept activation on the otherwise unrelated domain of meaning in life.

Finally, it could be argued that Studies 1 and 2 did not adequately control for the issue of whether the true self-concept was an idealized view of the self. In those studies, we compared likeability ratings for the two selves derived from N. H. Anderson (1968) and undergraduate coders. In Study 1, the true self-concept was less desirable than the actual self-concept, whereas in Study 2, there was no difference in likeability. However, it might be more appropriate to consider what the person thinks about his or her own true and actual selves rather than what others think. In other words, despite what is suggested by objective ratings, it is possible the true self-concept is judged, subjectively, as more positive. In Study 3, we addressed this issue by asking participants how much they liked their own true and actual selves.

Overview and Predictions for Study 3

In Study 3, participants first completed a short questionnaire packet in which they listed traits that represented their true and actual selves. They then rated their attitudes toward each self-concept. Approximately 1 month later, participants completed a second laboratory session in which they were suboptimally primed (e.g., Friedman, McCarthy, Förster, & Denzler, 2005; see also Bargh & Chartrand, 2000, for a review) with either their true self-concept traits or their actual self-concept traits. After the priming task, participants completed a measure of meaning in life. Consistent with the idea that the activation of the true self-concept enhances meaning in life, we predicted that those individuals who were primed with their true self-concept descriptors would report higher levels of meaning in life at Time 2 compared with those primed with their actual self-concept descriptors, controlling for self-rated liking for each self-concept. As an indicator of the robust nature of this effect, we predicted these differences would remain significant even after controlling for Time 1 meaning in life ratings.

It is perhaps worthwhile to note the subtle underpinnings of this prediction. Participants selected the traits representative of the true and actual self-concepts 1 month prior to the priming manipulation. As such, the influence of priming rests on the presumed stability of the traits associated with the true self-concept at least for a few weeks.

Study 3

Method

Participants

Eighty participants (63 women, 17 men) enrolled in an introductory psychology course at the University of Missouri participated for partial fulfillment of a course requirement. Ages ranged from 18 to 24 ($M = 18.34$, $SD = 1.23$). Represented ethnicities included 81% European American, 8% African American, 4% Hispanic American, 4% Asian American, and 3% "other."

Materials and Procedure

True/actual self-descriptions and meaning in life measures. Participants were first brought into the laboratory to complete a large packet of questionnaires. Embedded in the questionnaire packet was an "identity task." For this task, participants were asked to write down 10 traits that described their true selves and 10 traits that described their actual selves. The true and actual selves were defined the same as they were in the previous studies. As in Studies 1 and 2, participants were instructed to select different traits for each self-concept. After listing the traits for each self-concept, participants rated one item assessing how much they liked the particular self aspect: "How much do you like your true/actual self?" ($M = 5.81$, $SD = 1.10$ for the true self; $M = 5.29$, $SD = 1.34$ for the actual self). These items were rated on a scale ranging from 1 (*not at all*) to 7 (*very much*). Results of a t test revealed that participants liked the true self-concept significantly more than the actual self-concept, $t(79) = 3.55$, $p < .01$.

During this time, participants also completed the Presence subscale of the MLQ as a measure of baseline meaning in life ($M = 5.01$, $SD = 1.11$, $\alpha = .85$). Participants also rated four items adapted from the Purpose in Life test (PIL; Crumbaugh & Maholick, 1964; $M = 5.28$, $SD = 1.01$, $\alpha = .83$). The four items included, "In life, I have very clear goals and aims"; "My personal existence is very purposeful and meaningful"; "I have clear goals and a satisfying purpose in life"; and "I regard my ability to find a meaning, purpose, or mission in life to be very great." These items have been identified as tapping meaning in life, specifically, and not simply positive affect (McGregor & Little, 1998), and have been used extensively in recent research on meaning in life (Hicks & King, 2007, 2008; King et al., 2006). As expected, these scales were highly correlated ($r = .79$). A composite meaning in life variable was subsequently created by averaging the two scales ($M = 5.14$, $SD = 1.00$).

Priming task. Approximately 1 month later, participants returned to the laboratory. They were told they would be completing a variety of tasks for separate research projects. Participants were first instructed that they would complete a lexical decision task. For this task, participants were asked to categorize various stimuli as either words (by pressing the Z key) or nonwords (by pressing the "slash" key). They were additionally instructed that there would be a random string of letters before each stimulus was presented and that "we [were] interested in how the presentation of the random stimuli influences subsequent lexical decisions." Participants were told to respond as quickly as possible. Each trial began with a "+" presented in the middle of the screen for 1,000 ms. Participants were instructed that they should stare at the "+" to help them respond as quickly as possible. After the "+," a string

of "&"s was displayed for 400 ms. Then, after the string of "&"s were presented, either the true or actual self-concept traits were presented for 40 ms. The amount of time each word was presented was meant to limit the extent of processing each word (see Bargh & Chartrand, 2000). In addition, previous research using an identical priming method has shown that most people are unaware that they were exposed to additional words (e.g., Friedman, McCarthy, Bartholow, & Hicks, 2007; Friedman et al., 2005). Half the participants were primed with their true self-concept traits. The other half were primed with their actual self-concept traits. Immediately after the primes were presented, a string of "X"s was presented for 400 ms to serve as a backward mask. After the mask, participants were presented with another letter string that served as the stimuli for their lexical decision (e.g., *irony* or *nogzp*). Participants in both conditions responded to the same stimuli during the lexical decision task. There were a total of 110 trials. Again, each trial included a (brief) presentation of the primed stimulus followed by a target word for the lexical decision.

Meaning in life and mood measures. After the lexical decision task, participants were instructed to complete a survey. Participants then completed the Presence subscale of the MLQ ($M = 4.99$, $SD = 1.10$, $\alpha = .84$) and the four items adapted from the PIL test ($M = 5.28$, $SD = 1.11$, $\alpha = .80$). Again, the high correlation between measures ($r = .81$) justified the creation of a composite meaning in life variable ($M = 5.13$, $SD = 1.05$). Participants also completed a measure of state PA ($M = 4.56$, $SD = 1.12$, $\alpha = .89$) and state NA ($M = 3.29$, $SD = .96$, $\alpha = .95$). All items were rated on a scale ranging from 1 (*not at all*) to 7 (*extremely much*).

After the task, participants were asked whether they noticed any words (other than the lexical decision stimuli) displayed during the lexical decision task. None of the participants were able to correctly identify the stimuli or express any suspicion regarding the purpose of the study. Thus, like other studies using similar procedures for suboptimal priming (e.g., Arndt, Greenberg, Pyszczynski, & Solomon, 1997), there appears to be little indication that participants could consciously identify the primed words.

Results

Preliminary Analyses

Table 3 shows the zero-order correlations for the variables of interest in Study 5. PA was negatively related to NA and positively

Table 3
Correlations Among Measures in Study 3

Variable	1	2	3	4	5	6
1. Positive affect	—	-.40**	.21	.43**	.33**	.45**
2. Negative affect		—	-.13	-.10	-.01	-.08
3. Self-rated true self-liking			—	.43**	.32**	.24*
4. Self-rated actual self-liking				—	.43**	.38**
5. T1 meaning in life					—	.75**
6. T2 meaning in life						—

Note. $N = 80$. T1 = Time 1; T2 = Time 2.
* $p < .05$. ** $p < .01$.

related to liking the true self-concept, liking the actual self-concept, and both meaning in life measures. Liking the true self-concept was positively related to liking the actual self-concept and both meaning in life measures. Liking the actual self-concept was also positively related to both meaning in life measures. As expected, meaning in life at Time 1 was positively related to meaning in life at Time 2.

Primary Analyses

Before adjusting for important covariates, we examined the differences in Time 2 meaning in life between the two conditions. A *t* test, $t(78) = 4.16, p < .01$, revealed that those in the true self-concept condition ($M = 5.59, SD = 0.80$) reported higher meaning than those in the actual self-concept condition ($M = 4.72, SD = 1.07$).

We then performed an analysis of covariance (ANCOVA) to test whether the groups significantly differed on Time 2 meaning in life after controlling for Time 1 meaning and other important covariates (PA, NA, true and actual self-concept liking ratings). Results revealed that, as expected, Time 1 meaning in life, $F(1, 73) = 56.33, p < .001$, and PA, $F(1, 73) = 5.37, p < .05$, significantly predicted Time 2 meaning in life. Moreover, as predicted, results also revealed that the group primed with their true self-concepts ($M = 5.59, SD = 0.80$) was significantly higher in Time 2 meaning in life ratings than the group primed with their actual self-concepts ($M = 4.71, SD = 1.07$), $F(1, 73) = 4.46, p < .05$.⁶

Discussion

These results support the prediction that true self-concept accessibility leads to enhanced meaning in life. Participants who were suboptimally primed with words associated with their true self-concept reported higher levels of meaning in life compared with counterparts who were primed with words associated with their actual self-concept. This was evident even after controlling for affect and how much participants liked both their true and actual self-concepts. Equally compellingly, these analyses controlled for baseline meaning in life ratings.

Studies 1 through 3 provide converging evidence that true self-concept accessibility is a powerful cue to meaning in life. However, these three studies are limited in a number of ways. Following previous research (Bargh et al., 2002) and theory (Rogers, 1951), we instructed participants to think of those traits that they are able to express around those people to whom they are closest. As such, activating these traits may have also activated associated concepts such as close relationships. Relationships are widely recognized as an important source of meaning in people's lives (Baumeister & Leary, 1995; Ebersole, 1998; Mikulincer, Florian, & Hirschberger, 2003). Thus, indirectly reminding people of such close relationships might have influenced meaning in life judgments. Additionally, it is possible that some individuals' true self-concepts contain traits that are not usually expressed even around people who know them well. We addressed these issues in Studies 4 and 5 by providing participants with a description of the true and actual selves that did not reference social relationships.

Additionally, in Studies 1 through 3, we constrained participants to pick different words for their true and actual selves. However, there can be overlap in people's true and actual self-concepts, and the amount of this overlap may be conceptually important (Sheldon & Gunz, 2008). Furthermore, constraining participants in this way may have led participants to choose words that they believed were not truly indicative of the true or actual self-concept but were endorsed simply because they were all that were left to be selected or nominated. In Studies 4 and 5, participants were permitted to choose the same words for both selves, and in Study 4, we examined the potential relationship between the amount of overlap and meaning in life.

Finally, two variables that one might suspect as potential alternative explanations for the relationship between true self-concept accessibility and meaning in life were considered in Studies 4 and 5, namely, state self-esteem and self-reported authenticity. If the true self-concept is a particularly likeable aspect of the self, then it may be that self-esteem is related to its accessibility. Considering that it is not yet clear whether true self-concept accessibility is a stable individual difference, naturally occurring fluctuations of true self-concept accessibility, as well as manipulated true self-concept accessibility, could covary with current levels of self-esteem. Thus, we included a measure of state self-esteem in Studies 4 and 5. Authenticity is the feeling of acting in accord with the true self across many different situations. Thus, authenticity might be thought of as a correlate of both true self-concept accessibility and meaning in life. However, if there is something unique about the true self itself that fosters perceptions of meaning, then the relationship between true self-concept accessibility and meaning in life should remain significant after controlling for these potentially related constructs.

Overview and Predictions for Study 4

In Study 4, participants selected traits describing their true and actual selves as in Study 1. However, rather than choosing traits for both selves at one time, participants completed the measure twice, once when choosing true self words and once when choosing actual self words; they were not instructed to choose different words. In addition, as noted above, instructions did not refer to social relationships. Following a timed me/not me task, participants completed measures of state self-esteem, authenticity, mood, basic need satisfaction, and meaning in life. We predicted that, replicating the results from Studies 1 and 2, true self-concept accessibility would be related to meaning in life after controlling for actual self-concept accessibility and other important sources of meaning in life such as affect, basic need satisfaction, state self-esteem, and authenticity. Additionally, in this study, we controlled for the amount of overlap between the true and actual selves as well as for self-rated liking for both selves.

⁶ The primes did not influence mood ratings ($ps > .18$).

Study 4

Method

Participants

One hundred forty participants (97 women, 43 men) enrolled in introductory psychology at the University of Missouri participated for partial fulfillment of a course requirement. Ages ranged from 18 to 33 ($M = 18.56$, $SD = 1.57$). Represented ethnicities included 83% European American, 9% African American, 3% Hispanic American, and 5% Asian American.

Materials and Procedure

True/actual self trait lists. Participants came into the lab in groups of 1–4. Each participant was greeted individually and escorted to a private cubicle that contained a desk and a computer. Participants completed a true and actual self-concept measure similar to that used in Study 1. The measure consisted of the same list of 60 trait words; participants were instructed to choose 10 words that described their “true self” on one page and 10 words that described their “actual self” on a separate page, with order counterbalanced across participants.

In contrast to previous studies, the definitions of true and actual self used in the present study avoided reference to close relationships. The true self was defined as traits that describe “who you believe you *really* are, even if you sometimes act in different ways.” The actual self was referred to as the “everyday self” in this measure and was defined as traits that describe “who you are during most of your daily activities, even if these traits don’t reflect who you really are.”

Unlike Study 1, participants in this study were not instructed to choose different words for the true and actual selves, allowing us to measure and control for the amount of overlap between the two selves. Most participants chose at least some of the same words for both selves, indicating a fair amount of overlap between the two selves ($M = 4.05$, $SD = 2.07$, within the 10 traits).

After choosing the traits for each self-concept, participants rated one item assessing how much they liked the particular self-concept: “How much do you like your true/everyday self,” $M = 5.84$, $SD = 1.14$ for the true self; $M = 5.38$, $SD = 1.27$ for the actual self). These items were rated on a scale ranging from 1 (*not at all*) to 7 (*very much*). Results of a *t* test revealed that participants liked the true self-concept significantly more than the actual self-concept, $t(139) = 3.81$, $p < .01$.

State self-esteem. Participants also completed the 20-item State Self-Esteem Scale, which has been argued to be sensitive to transient changes in self-esteem (Heatherton & Polivy, 1991). Using the state measure during the same session as the reaction time task and meaning in life measure allowed us to assess whether true self-concept accessibility also activated positive feelings about the self. Participants were asked to answer the items with respect to how they felt “at this moment.” Example items include “I feel confident about my abilities” and “I feel that others respect and admire me.” All items were rated on a scale ranging from 1 (*not at all*) to 7 (*extremely*). A composite state self-esteem score was created by averaging all 20 items ($M = 5.42$, $SD = 0.87$, $\alpha = .91$).

Authenticity. Participants completed Kernis and Goldman’s (2006) Authenticity Inventory (AI-3). Example items include “For better or for worse I am aware of who I truly am” and “I frequently pretend to enjoy something when in actuality I really don’t.” We created a composite authenticity score by averaging all 45 items ($M = 4.18$, $SD = 0.65$, $\alpha = .94$).

Meaning in life, basic need satisfaction, and mood. Participants also completed a variety of questionnaires that were used in the previous studies, including the Presence subscale of the MLQ ($M = 4.76$, $SD = 1.31$, $\alpha = .91$) and a measure of state PA ($M = 4.80$, $SD = 1.43$, $\alpha = .91$) and state NA ($M = 3.24$, $SD = 1.31$, $\alpha = .72$). Participants also completed the same Basic Psychological Needs Scale, administered in Study 1, to assess Autonomy ($M = 5.07$, $SD = 0.94$, $\alpha = .74$), Competence ($M = 5.26$, $SD = 0.97$, $\alpha = .71$), and Relatedness ($M = 5.93$, $SD = 0.96$, $\alpha = .86$) Need Satisfaction. We created a composite need satisfaction score by averaging the three subscales ($M = 5.42$, $SD = 0.87$, $\alpha = .91$). All items were rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Me/not me task. After completing all of the questionnaires, participants completed the same me/not me task administered in Study 1. Seventeen participants failed to follow the given directions and circled more (or fewer) than 10 words for either the true self measure, actual self measure, or both. These participants were excluded from all subsequent analyses. Following the me/not me task, all participants were probed for suspicion and thoroughly debriefed. None of the participants expressed suspicion related to the study hypotheses.

Results

Preliminary Analyses

We created composite scores for true and actual self-concept accessibility as in Studies 1 and 2. A repeated measures ANOVA revealed significant differences in response time to the self-descriptors, $F(2, 121) = 121.95$, $p < .001$. Pairwise comparisons revealed that participants were fastest to respond to true self-concept words ($M = 893.56$ ms, $SD = 168.36$), followed by actual self-concept words ($M = 915.67$ ms, $SD = 180.55$), and were slowest to respond to control words ($M = 1154.23$ ms, $SD = 225.49$, $ps < .05$). We then log transformed all reaction times and dropped responses more than 2.5 standard deviations away from the mean.⁷ Finally, we created the same standardized residual scores used in Studies 1 and 2.

Primary Analyses

Correlations. Table 4 shows the zero-order correlations for the variables of interest. True self-concept accessibility was related to true self-concept liking, overlap between true and actual selves, basic need satisfaction, state self-esteem, and meaning in life. True

⁷ As with Studies 1 and 2, we examined the correlations between these mean reaction times and meaning in life. These analyses indicated that reaction times for true self-concept words were significantly related to meaning in life ($r = .19$, $p < .05$), whereas reaction times for actual self-concept words were not ($r = .09$, $p > .10$).

Table 4
Correlations Among Measures in Study 4

Variable	1	2	3	4	5	6	7	8	9	10	11
1. PA	—	-.52**	.29**	.35**	.17	-.09	.30**	.55**	.51**	.37**	.44**
2. NA		—	-.35**	-.32**	-.08	.07	-.25**	-.62**	-.51**	-.43**	-.48**
3. TS liking			—	.35**	.19*	-.13	.31**	.35**	.38**	.39**	.29**
4. AS liking				—	-.03	-.07	.36**	.47**	.37**	.28**	.25**
5. TSCA					—	.70**	.27**	.20*	.19*	.05	.30**
6. ASCA						—	.31**	.19*	.20*	.03	.17
7. TS/AS overlap							—	.39**	.34**	.18*	.43**
8. Need sat.								—	.63**	.52**	.33**
9. SSE									—	.61**	.56**
10. Authenticity										—	.50**
11. Meaning											—

Note. $N = 124$. PA = Positive Affect; NA = Negative Affect; TS = True Self; AS = Actual Self; TSCA = True Self-Concept Accessibility; ASCA = Actual Self-Concept Accessibility; sat. = satisfaction; SSE = State Self-Estem.

* $p < .05$. ** $p < .01$.

self-concept accessibility was unrelated to the authenticity measure.

Multiple regression. To examine the contribution of true self-concept accessibility to meaning in life, we computed a simultaneous regression. We entered actual self-concept accessibility, PA, NA, true self-concept liking, actual self-concept liking, the overlap between true and actual self-concepts, authenticity, state self-esteem, and basic need satisfaction as covariates. These effects contributed to a significant change in R^2 ($\Delta R^2 = .56, p < .001$). The overlap variable ($\beta = .21, p < .01$) and authenticity ($\beta = .34, p < .01$) both predicted enhanced meaning in life ratings. While controlling for these substantial predictors of meaning in life, true self-concept accessibility remained independently and significantly related to meaning in life ($\beta = .19, p < .05$). Actual self-concept accessibility was again unrelated to meaning in life ($p > .10$). It is notable that among these predictors, true self-concept accessibility is the only significant predictor that does not share method variance with (self-reported) meaning in life.

Discussion

Study 4 resolves a number of the methodological issues associated with the first three studies. Namely, we used a definition for the true self that did not make any reference to close relationships, allowed overlapping true and actual self-concept traits, included a state measure of self-esteem and a self-report measure of authenticity, and assessed participants' liking of their own true and actual selves rather than using objective ratings. After making these methodological adjustments and controlling for the degree of overlap as well as authenticity, the effect of true self-concept accessibility on meaning in life remained significant. The results of Study 4 provide strong evidence that even when the true self is defined in terms that do not explicitly connect it to social relationships, the accessibility of this self-concept relates to the experience of meaning in life over and above other potential correlates of meaning in life.

In Study 5, we sought to address whether manipulating the accessibility of the true self-concept, when defined as in Study 4, would lead to enhanced meaning in life. In Study 5, we again used a state measure of self-esteem to assess whether priming the true

self-concept increased current self-esteem and to ensure that it was not self-esteem driving the relationship between true self-concept accessibility and meaning.

Because Studies 3 and 4 suggest that the true self-concept is subjectively more positive than the actual self-concept, in Study 5, we adopted a direct approach to determining whether a positivity bias in the true self-concept was driving its relationship with meaning in life. In this study, participants listed traits they both liked and disliked about themselves that described both their true and actual selves. We then primed participants with only one of the four types of words listed. Participants were randomly assigned to the cells of a 2 (type of self-concept, true vs. actual) \times 2 (valence, liked vs. disliked traits) design, allowing us to examine the independent effects of valence and type of self-concept as well as their interaction in predicting meaning in life.

Overview and Predictions for Study 5

Participants in Study 5 completed an online survey before participating in a lab session. The online survey included the adapted true and actual self-concept measure from Study 4 to provide priming stimuli. A baseline measure of meaning was also included in the online survey. In the lab session, after the priming procedure, participants completed a second meaning in life measure as well as measures of affect, authenticity, and state self-esteem. We predicted that participants primed with true self-concept words would report increased meaning in life, regardless of the valence of those words, whereas participants primed with the actual self-concept would only report increased meaning in life if those words were liked. More specifically, because we know from previous research that positive stimuli increase self-reported meaning in life (King et al., 2006), this design leads to an interaction prediction with a 3-versus-1 pattern. Participants in the positive-true, negative-true, and positive-actual conditions should all report higher meaning in life than those participants in the negative-actual condition. Furthermore, we predicted that this would be evident even after controlling for mood, authenticity, and state self-esteem.

Study 5

Method

Participants

One hundred fifty-five students (77 women, 78 men) enrolled in either an introductory psychology course or introductory personality course at the University of Missouri participated for partial fulfillment of a course requirement or for extra credit. Ages ranged from 18 to 27 ($M = 19.48$, $SD = 1.23$). Represented ethnicities included 87% European American, 6% African American, 2% Hispanic American, 3% Asian American, and 2% "other."

Materials and Procedure

True/actual self-descriptions and meaning in life measures. Participants first completed a number of measures online. Embedded within these measures was an "identity task." For this task, participants were asked to generate 10 traits that described their true and actual selves. Participants were further instructed that for each of these selves, 5 of the traits should be ones that they considered positive and 5 of the traits should be ones that they considered negative. This task was prefaced with the following statement:

People often have a variety of traits that they (or others) like about themselves as well as traits that they (or others) dislike. Next, we would like you to think about the traits that best describe you and are traits that might be seen as positive or negative.

The true and actual self were defined the same as they were in Study 4, and participants were again allowed to list overlapping traits. Participants listed traits for each combination of valence and self-type (positive/true, negative/true, positive/actual, negative/actual) on separate screens. After each trait, participants rated one item assessing how much they liked that particular trait—"How much do you like this part of your self?"—on a scale ranging from 1 (*not at all*) to 7 (*very much*). These ratings were then averaged over the five traits listed for each combination of positive/negative and true/actual ($M = 6.30$, $SD = 0.64$ for positive/true; $M = 2.44$, $SD = 0.83$ for negative/true; $M = 5.97$, $SD = 0.83$ for positive/actual; $M = 2.41$, $SD = 0.96$ for negative/actual). A repeated measures ANOVA revealed a significant interaction between valence and self-concept type in mean liking ratings, $F(1, 148) = 6.751$, $p < .01$. Post hoc comparisons revealed that participants reported the highest liking for the positive true self-concept ($ps < .01$). Additionally, participants reported liking the positive actual self-concept more than both the negative self-concepts ($ps < .01$). Liking ratings did not differ between the negative-true and negative-actual self-concepts ($p > .10$). Finally, participants also completed meaning in life items from the PIL as a Time 1 measure of meaning in life ($M = 5.07$, $SD = 1.32$, $\alpha = .86$).

Priming task. Participants completed a laboratory session that occurred approximately 2 weeks following the online survey. Participants were told they would be completing a variety of tasks for separate research projects. For the priming task, participants were told that they would be completing a "periphery decision task." Participants were told that the researchers were interested in how different types of random stimuli would affect their performance on the task. The instructions for the task stated that a "+"

would appear in the middle of the computer screen and that this would be followed by a stimulus that would be presented on either the right or left side of the screen. Participants were told that their task would be to indicate on which side of the screen the stimulus appeared by pressing a red circle, located on the "semicolon" key if the stimulus appeared on the right, or a green circle, located on the "a" key, if the stimulus appeared on the left. They were instructed to focus only on the "+" throughout the duration of task.

The stimuli for the task were random strings of letters and numbers. The primes were presented immediately before the random stimuli in the parafoveal region of vision, to the right or left of the fixation point, outside the focus of conscious visual attention. Stimuli presented in this region are not believed to reach conscious awareness (see Bargh & Chartrand, 2000). Each word was displayed for 35 ms and immediately masked by a string of Xs. There were 50 trials, each of which lasted 2 s and timed out if no response was made within 2 s (all responses were made within 2 s). This type of priming technique has been used in previous meaning in life research (Hicks & King, 2008; King et al., 2006). Participants were randomly assigned to one of the four conditions and were primed with the words they had listed for that part of the self-concept.

Meaning in life, state self-esteem, authenticity, and mood measures. After the priming task, participants were instructed to complete a survey. Participants first completed the Time 2 meaning measure, that is, the four meaning in life items adapted from the PIL test ($M = 5.28$, $SD = 1.11$, $\alpha = .80$). Participants also completed a measure of state PA ($M = 4.29$, $SD = 1.04$, $\alpha = .89$) and state NA ($M = 3.05$, $SD = 1.13$, $\alpha = .71$). Finally, participants completed the same state self-esteem measure ($M = 3.74$, $SD = 0.74$, $\alpha = .90$) and the same authenticity measure ($M = 4.80$, $SD = 0.71$, $\alpha = .91$) used in Study 4. All items were rated on a scale ranging from 1 (*not at all*) to 7 (*extremely much*).

After completing all of the measures, participants were probed for general suspicion and asked to indicate the types of stimuli that were flashed during the priming task. One participant expressed suspicion regarding the purpose of the study, and 3 participants reported seeing some of the primed words. These 4 participants were excluded from all subsequent analyses.

Results

Preliminary Analyses

Data screening revealed 2 outliers who were more than three standard deviations away from the mean on the Time 2 measure of meaning; these participants were also excluded from all subsequent analyses. Descriptive statistics for the postmeasure of meaning across the four conditions were as follows: positive true ($M = 5.21$, $SD = 1.05$), negative true ($M = 5.16$, $SD = 1.05$), positive actual ($M = 5.49$, $SD = 1.17$), and negative actual ($M = 4.86$, $SD = 0.98$).

Table 5 shows the zero-order correlations for the variables of interest in Study 5. The correlations are similar to the results from the previous studies. PA and NA are both related to both meaning in life measures, as is state self-esteem. Of particular interest, this study reveals that it is only the liking ratings for positive aspects of both the true and actual self-concept that seem to contribute to state self-esteem, mood, and meaning in life. Liking ratings of

Table 5
Correlations Among Measures in Study 5

Variable	1	2	3	4	5	6	7	8	9	10
1. Positive affect	—	-.55**	.18*	.09	.18*	.06	.39**	.38**	.30**	.37**
2. Negative affect		—	-.15	-.02	-.16*	-.04	-.40**	-.43**	-.21*	-.29**
3. Positive TSC liking			—	.09	.48**	.07	.22**	.37**	.33**	.43**
4. Negative TSC liking				—	.14	.64**	.00	-.04	.02	-.06
5. Positive ASC liking					—	.09	.25**	.28**	.24**	.48**
6. Negative ASC liking						—	.09	.04	.12	.12
7. State Self-Esteem							—	.61**	.33**	.44**
8. Authenticity								—	.48**	.52**
9. T1 meaning in life									—	.72**
10. T2 meaning in life										—

Note. $N = 152$. Positive TSC liking = self-reported liking of one's positive true self-concept; Negative TSC liking = self-reported liking of one's negative true self-concept; Positive ASC liking = self-reported liking of one's positive actual self-concept; Negative ASC liking = self-reported liking of one's negative actual self-concept; T1 = Time 1; T2 = Time 2.

* $p < .05$. ** $p < .01$.

negative aspects of both the true and actual self-concept were unrelated to meaning, affect, or state self-esteem.

We performed an ANOVA to examine whether the priming manipulations influenced state self-esteem. The analyses revealed that neither of the main effects (self-concept type, valence) nor the interaction influenced state self-esteem (all $ps > .40$).⁸

Primary Analyses

To assess how the primes may have changed participants' perceptions of meaning in life, we performed an ANCOVA to compare the groups, using Time 2 meaning in life as the dependent variable. We entered Time 1 meaning, PA, NA, state self-esteem, authenticity, and all four self-concept liking ratings (positive/true, negative/true, positive/actual, negative/actual) as covariates. Results revealed that Time 1 meaning was related to Time 2 meaning, $F(1, 139) = 61.06, p < .05$, as were three of the liking variables: positive true liking, $F(1, 139) = 12.43, p < .05$; negative true liking, $F(1, 139) = 9.50, p < .05$; and negative actual liking, $F(1, 139) = 3.94, p < .05$.

We next examined the main effects for type of self-concept (true vs. actual) and valence of self-concept (liked vs. disliked) and the interaction. As predicted, results revealed a significant interaction between type of self-concept and valence of self-concept, $F(1, 139) = 1.63, p < .05$. Neither of the main effects were significant ($ps > .18$). The estimated marginal means were as follows: positive true ($M = 5.16$), negative true ($M = 5.23$), positive actual ($M = 5.29$), and negative actual ($M = 4.91$). Following the recommendations of Rosenthal, Rosnow, and Rubin (2000), we performed planned contrast analyses of the estimated marginal means to compare the negative actual self-concept condition with the other three conditions, thereby testing the specifically hypothesized pattern. Results revealed that participants in this condition reported significantly lower meaning in life ($M = 4.91$) than participants in the other three groups ($M = 5.21$), $F(1, 139) = 5.07, p < .05$.⁹

We conducted an additional contrast to confirm that the negative true self-concept condition did in fact show higher meaning in life than the negative actual self-concept condition. This contrast revealed the predicted effect, $F(1, 139) = 4.63, p < .05$. We

conducted two additional contrasts to confirm that valence of the self-concept influenced meaning judgments in the actual self-concept conditions but not in the true self-concept conditions. The analyses revealed the expected effects. Participants in the positive-actual condition reported higher meaning than those in the negative-actual condition, $F(1, 139) = 5.09, p < .05$, whereas participants in the positive true condition reported similar levels of meaning as those in the negative true condition ($p > .40$).

Discussion

The results of Study 5 provide strong support for the hypothesis that true self-concept accessibility leads to an enhanced sense that one's life is meaningful. Participants who were suboptimally primed with traits associated with the true self-concept reported higher levels of meaning in life, regardless of the valence of those traits. In contrast, participants who were primed with traits associated with their actual self-concepts reported higher meaning in life only if those traits were liked. Thus, even negative words that describe the true self-concept appear to serve as a source of meaning.

Additionally, results revealed that priming the true self-concept did not lead to an increase in state self-esteem. The primary

⁸ An ANOVA revealed that the primes also did not influence self-reported authenticity ratings. Neither of the main effects (self type, valence of self) nor the interaction were significant ($ps > .34$).

⁹ One weakness of the present study is that, without a neutral control condition, it may not be clear whether, for example, negative true self-concept primes actually increased meaning in life or whether negative actual self-concept primes decreased meaning, or both. Fortunately, the inclusion of a premanipulation measure of meaning allowed us to address this issue. Change scores were calculated for the two meaning measures. The change scores indicated that whereas meaning in life increased for participants primed with their true self (negative true mean = .28, positive mean = .10), it decreased for participants in the negative actual self-prime condition ($M = -.13$). Participants in the positive actual self condition reported essentially no change in meaning in life ($M = .01$). It is important to note, however, that these change scores should be interpreted with caution due to differences between conditions on the premeasure of meaning in life.

analyses also controlled for this variable to further ensure that any short-lived boosts in self-esteem did not drive the effect of true self-concept priming.

Although the lack of a main effect for type of self-concept in this study may seem troubling, the observed interaction is perhaps equally compelling and informative. First, previous research (King et al., 2006) suggests that positive stimuli increase self-reported meaning in life, which would explain the effect of valence observed in the actual self-concept conditions. That negative stimuli can overcome this powerful effect of valence if they are associated with the true self-concept is notable. Second, results from our previous studies suggest that positive components of one's actual self-concept are beneficial to the experience of meaning. The social desirability and self-reported liking of actual self-concept traits has been related to a number of positive outcomes, including basic need satisfaction, positive affect, state self-esteem, authenticity, and, importantly, meaning in life itself. Thus, it appears that it is not the case that the actual self-concept is completely unimportant to the experience of meaning, but rather that the extent to which we like this self-concept is what matters. This may be what distinguishes these two selves. That is, the true self-concept may be important simply because it represents who we believe we really are, regardless of how much we like it.

Alternatively, one might expect that the effects of positive words and true self-concept words would be additive. In other words, if both positive stimuli and aspects of the true self contribute to meaning, then perhaps participants in the positive-true self condition should have reported the highest meaning in life of the four groups. It is not entirely clear why such a pattern was not observed. One possibility is that the descriptors participants provided for the positive actual self-concept are particularly likely to overlap with the true self-concept. It makes at least some intuitive sense that those aspects of one's behavior (e.g., the actual self-concept) that are likeable would also be integrated into one's definition of who one really is (e.g., the true self-concept). Thus, at least some of the participants in the positive-actual self condition may have inadvertently been primed with their true selves as well. Importantly, this overlap may go beyond the 10 most definitive words participants listed on our measure, making this type of overlap difficult to assess with the type of open-ended measure used in the present study.

General Discussion

The notion that the true self is psychologically important is not new. Indeed the idea appears in commonly held lay theories as well as in a number of philosophical and psychological traditions. We argued that one important role of the true self is that it serves as a hub of meaning and that the accessibility of one's true self-concept should influence the experience of meaning in life judgments. That is, because the extension of the true self-concept to experiences imbues those experiences with feelings of meaningfulness, the simple activation of the true self-concept itself should be sufficient to elicit a corresponding increase in meaning in life, even in the absence of the phenomenological experience or actual expression of one's true self-concept. The results of five studies support this supposition. Both individual differences in true self-concept accessibility and manipulated true self-concept accessibility related to increased perceptions of meaning in life, even

after controlling for a variety of other important predictors of meaning.

Studies 1, 2, and 4 assessed the correlates of true self-concept accessibility. The results of these three studies showed that individual differences in true self-concept accessibility were positively associated with meaning in life. Furthermore, this relationship was significant at both the bivariate level as well as in regression analyses, which controlled for the accessibility of other aspects of the self (e.g., the actual self-concept). Of course, making causal interpretations in light of the correlational design of these three studies is problematic.

Studies 3 and 5 examined the same issue experimentally. The results of these two studies suggest that when the true self-concept is made more accessible by priming people with traits they associate with this self-concept, life is seen as more meaningful. These findings suggest that it is the simple accessibility of these privileged traits that influences meaning in life. Furthermore, Study 5 demonstrated the robustness of this relationship in that priming participants with true self-concept traits led to an increase in meaning in life, regardless of the valence of these true self-concept traits.

The True Self: Warts and All

A positive illusions perspective might suggest that the true self-concept is a self-schema that is composed of unrealistically positive views of the self and that it is these inflated self-views that are psychologically beneficial (e.g., Taylor et al., 2007). Results of these studies refute this possibility. Although the true self-concept is liked more than the actual self-concept, it is not necessarily more positive than the actual self-concept (Studies 1 and 2). Furthermore, priming individuals with aspects of the true self-concept led to increased meaning in life even when those self-aspects were disliked (Study 5). Moreover, the effect of accessibility was significant after controlling for objective ratings of how likeable the true self-concept was (Studies 1 and 2) as well as after controlling for how well participant's liked their own true self-concept (Studies 3 and 4) or the individual traits comprising that self-concept (Study 5).

The lack of effects for state self-esteem would also seem to speak against the notion that the true self-concept is an overly positive version of the self-concept. If it is the case that people are overly fond of their true selves, then it would be reasonable to expect that the accessibility of this part of the self-concept would lead to a boost in self-esteem. The results of Study 4 demonstrated that individual differences in true self-concept accessibility were unrelated to state self-esteem, and Study 5 demonstrated that increasing true self-concept accessibility did not lead to increased state self-esteem. Even if people tend to like the true self-concept more than the actual self-concept, this feeling of liking does not fully explain the effects of true self-concept accessibility on meaning in life.

That the true self-concept would include at least some negative aspects makes intuitive sense. If the true self-concept includes those characteristics we are not willing to share with everyone we meet, then the true self-concept may, in part, serve a role as a secret that includes those negative parts of the self we work to hide from most others (Goffman, 1959). It is noteworthy that the accessibility of these potentially negative aspects of the self can be

beneficial to the experience of meaning. This pattern is in accord with Kernis and Goldman's (2006) contention that true authenticity comes, in part, from awareness and acceptance of both one's positive and negative attributes.

It is worth noting that the present investigation may be thought of as firmly entrenched in modern times (Gergen, 1973). As noted earlier, emphasis on searching for one's true self seems to be more poignant in modern times (e.g., Baumeister 1991; Becker, 1971; Bellah et al., 1985; Frankl, 1959; Fromm, 1941/1969) and is perhaps spurred by the need to find a value base in light of the erosion of more widespread systems of meaning. When society supplied its members with answers to what made a good life, there was less need to find one's self. Thus, it is not entirely clear whether the true self-concept has always been, or will always be, a source of meaning in life. However, it is easy to imagine that even when society supplies the answer, one's identity and role in that society (whether chosen or assigned) provides each person a place in that system and, as such, provides a sense of meaning (Becker, 1971).

In this vein, it is worth considering whether "being in touch with" one's true self-concept would translate cross-culturally as a source of meaning in life. In answering this question, it is important to first consider potential differences in how the true self is defined in different cultures. Whereas people in Western cultures tend to focus on which of one's multiple self-concepts is "true" (i.e., Bellah et al., 1985; Gergen, 1991), other cultures seem to have more flexible definitions of the true self. For example, Kanagawa, Cross, and Markus (2001) suggest that some cultures may allow for inconsistency to be part of the true self. Supportive of this, Kashimi et al. (2004) found survey evidence that in Japan the true self is seen as variable across situations. Thus, it seems likely that the true self-concept varies across cultures in its content and temporal stability. Nonetheless, we expect that cross-cultural differences would be less evident in the importance of the cognitive accessibility of the true self-concept. Research has shown that the concept of authenticity is important across cultures (e.g., Neff & Suizzo, 2006) and that individuals from more collectivist cultures value trait stability within social contexts (English & Chen, 2007). Clearly, examining these complex issues is a promising direction for future research.

True and Actual Selves

Although we were interested in the relationship between the true self-concept and meaning in life, we also assessed actual self-concept accessibility as an important control variable in all five studies. A comparison of the results for these two selves provides insights into the nature of each. Whereas accessibility of the true self-concept was consistently related to the experience of meaning, accessibility of the actual self-concept was only related to meaning in life when exclusively positive traits of that self-concept were primed. This pattern might make one wonder whether the actual self-concept is important to the experience of meaning at all?

Though the accessibility of the actual self-concept as a whole was consistently unrelated to the experience of meaning, the social desirability of actual self-concept traits was related to basic need satisfaction (Studies 1 and 2), and self-reported liking of one's actual self-concept was related to state self-esteem (Study 4) and meaning in life (Studies 3, 4, and 5). Additionally, priming par-

ticipants with traits they liked about their actual self-concept increased meaning in life (Study 5). For the self that we chronically enact, which is at least partially constrained by social context, the important issue appears to be whether we like it or not.

The results of Study 4 also suggest that the actual self-concept is important in another way. As might be expected, based on perspectives such as self-discrepancy theory (Higgins, 1987, 1989), the extent to which the actual self-concept matched the true self-concept uniquely predicted meaning in life. Participants who had a relatively high degree of overlap (or lack of discrepancy) between the two self-concepts also reported higher positive affect, liking of both self-concepts, and self-reported authenticity. Future research should also examine the importance of matching one's true self-concept to situations. As would be suggested by person-environment-correspondence counseling (Lofquist & Dawis, 1991), the fit between one's true self-concept and situations may have implications for both well-being and performance. Similarly, individual differences in the fit between the true self-concept and social relationships, work, or academic life may relate to performance and satisfaction in these domains as well as to well-being, more generally.

Furthermore, having similar true and actual self-concepts predicted having a more accessible true self-concept, providing at least some insight into how someone comes to have a highly accessible true self-concept. It may be that those who express their true self-concept in their daily activities increase the accessibility of that self-concept. This possibility is further supported by the findings of Bargh et al. (2002), which showed that participants who presumably felt more comfortable expressing their true self in an interaction with a partner evidenced increased accessibility of the true self-concept compared with those who were less comfortable with such true self-expression in their interaction.

It is worth noting that these two selves may also be distinguished by their stability. Unfortunately, we only assessed in the present studies the contents of the true and actual self-concepts once, precluding us from testing the temporal stability of each. However, we suspect that the true self-concept may be more temporally stable. The actual self-concept, by definition, seems most prone to change on the basis of situation, circumstance, and social role, but that part of the person that represents who you believe you really are might be much more stable. Future research might examine whether it is more difficult to change the contents of the true self-concept when such changes are desired. More nuanced treatment of the content of the true and actual selves would also allow researchers to address the question of how it is that traits end up in the true versus actual self-concept.

With regard to both selves, it is notable that the sheer number of traits that participants could generate was constrained. Though this constraint was necessary for practical purposes considering the methodologies used, the quantity and complexity of traits associated with the true and actual selves may be of interest in future research. Indeed, the complexity of these two selves may have important implications for meaning in life (Linville, 1985, 1987).

Limitations

Conceptually, true self-concept accessibility resonates with previous notions such as the awareness aspect of authenticity (Kernis & Goldman, 2006) or basic need satisfaction in self-determination theory (Ryan & Deci, 2000). The present studies provide some data pertaining to whether these various conceptualizations in fact

tap the same underlying construct. Results suggest that true self-concept accessibility differs from these constructs in that each maintained independent relationships to meaning in life. Of course, these variables also differ methodologically. Whereas previous research on authenticity and need satisfaction has relied on self-report measures, we used reaction time measures and manipulated cognitive accessibility to assess true self-concept accessibility in the present studies. It is important to note, however, that we only used self-report measures of meaning. As such, the present studies are limited in the sense that they can only speak to conscious attitudes and may be prone to social desirability biases. As such, extending these findings to other types of meaning measures and to behavior promises to be an exciting avenue for future research.

Importantly, we examined in the present studies the true self-concept in a relatively isolated point in life (i.e., among college students) in only one situational context (i.e., in a psychology lab). It would be interesting to examine both developmental trajectories and situational variations in true self-concept accessibility. Considering that college is an important time of identity development for many people, it is possible that less variability would exist in an older sample. It is also possible that true and actual selves become more integrated later in life.

Finally, it is worth noting that true and actual selves may be thought to contain characteristics beyond traits. For the sake of simplicity, participants in these studies were instructed to think of traits when describing their true and actual selves. In practice, however, it seems likely that these selves involve other characteristics such as attitudes, goals, and roles.

Conclusions

The role of the true self in the “good life” has been recognized since ancient times and is reflected in a wide range of approaches to psychological health. The present studies shed empirical light on this powerful meme, demonstrating that the cognitive accessibility of traits that are thought to be characteristic of the true self relate to and enhance the experience of meaning in life, even in the absence of the phenomenological experience or expression of one’s true self-concept. This relationship was evidenced both through individual differences in true self-concept accessibility and in manipulated accessibility via priming words related to an individual’s true self-concept. In this way, the present studies may provide an important piece to a basic understanding of what enables people to extract meaning from their lives.

References

- Anderson, N. H. (1968). Likeableness ratings of 555 personality trait words. *Journal of Personality and Social Psychology, 9*, 272–279.
- Anderson, W. T., (2004). *All connected now: Life in the first global civilization*. Boulder, CO: Perseus.
- Aristotle (1998). *Nicomachean ethics* (J. L. Ackrill, J. O. Urmson, & D. Ross, Trans.). New York: Oxford University Press. (Original work published 350 BCE)
- Arndt, J., Greenberg, J., Pyszczynski, T., & Solomon, S. (1997). Subliminal exposure to death-related stimuli increases defense of the cultural worldview. *Psychological Science, 8*, 379–385.
- Arndt, J., & Schimel, J. (2003). Will the true self-esteem please stand up? Toward an optimal understanding of the nature, functions, and sources of self-esteem. *Psychological Inquiry, 14*, 27–31.
- Arndt, J., Schimel, J., Greenberg, J., & Pyszczynski, T. (2002). The intrinsic self and defensiveness: Evidence that activating the intrinsic self reduces self-handicapping and conformity. *Personality and Social Psychology Bulletin, 28*, 671–683.
- Bargh, J. A., & Chartrand, T. L. (2000). A practical guide to priming and automaticity research. In H. Reiss & C. Judd (Eds.), *Handbook of research methods in social psychology* (pp. 253–285). New York: Cambridge University Press.
- Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology, 71*, 230–244.
- Bargh, J. A., McKenna, K. Y., & Fitzsimmons, G. M. (2002). Can you see the real me? Activation and expression of the “true self” on the Internet. *Journal of Social Issues, 58*, 34–58.
- Baumeister, R. F. (1991). *Meanings of life*. New York: Guilford Press.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.
- Becker, E. (1971). *The birth and death of meaning*. New York: Free Press.
- Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life*. Berkeley: University of California Press.
- Bettencourt, B. A., & Sheldon, K. (2001). Social roles as mechanisms for psychological need satisfaction within social groups. *Journal of Personality and Social Psychology, 81*, 1131–1143.
- Carver, C. S., Ganellen, R. J., Froming, W. J., & Chambers, W. (1983). Modeling: An analysis in terms of category accessibility. *Journal of Experimental Social Psychology, 19*, 403–421.
- Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl’s concept of noogenic neurosis. *Journal of Clinical Psychology, 20*, 200–207.
- Debats, D. L., Drost, J., & Hansen, P. (1995). Experiences of meaning in life: A combined qualitative and quantitative approach. *British Journal of Psychology, 86*, 359–375.
- Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology, 47*, 1105–1117.
- Ebersole, P. (1998). Types and death of written life meanings. In P. T. P. Wong & S. P. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 179–191). Mahwah, NJ: Erlbaum.
- English, T., & Chen, S. (2007). Culture and self-concept stability: Consistency across and within contexts among Asian Americans and European Americans. *Journal of Personality and Social Psychology, 93*, 478–490.
- Fazio, R. H., Effrein, E. A., & Falender, V. J. (1981). Self-perceptions following social interaction. *Journal of Personality and Social Psychology, 41*, 232–242.
- Frankl, V. E. (1959). *Man’s search for meaning*. Boston: Beacon Press.
- Freud, S. (1949). *An outline of psychoanalysis*. Oxford, England: Norton.
- Freud, S. (1961). *The ego and the id*. New York: Norton.
- Friedman, R. S., McCarthy, D. M., Bartholow, B. D., & Hicks, J. A. (2007). Interactive effects of alcohol outcome expectancies and suboptimal alcohol cues on non-consumptive behavior. *Clinical and Experimental Psychopharmacology, 15*, 102–114.
- Friedman, R. S., McCarthy, D. M., Förster, J., & Denzler, M. (2005). Automatic effects of alcohol cues on sexual attraction. *Addiction, 100*, 672–681.
- Fromm, E. (1969). *Escape from freedom*. New York: Avon Books. (Original work published 1941)
- Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*, 199–223.

- Gergen, K. J. (1973). Social psychology as history. *Journal of Personality and Social Psychology*, 26, 309–320.
- Gergen, K. J. (1991). *The saturated self*. New York: Basic Books.
- Goffman, E. (1959). *The presentation of self in everyday life*. Oxford, England: Doubleday.
- Goldman, B. M., & Kernis, M. H. (2002). The role of authenticity in healthy psychological functioning and subjective well-being. *Annals of the American Psychotherapy Association*, 5/6, 18–20.
- Harter, S., Marold, D. B., Whitesell, N. R., & Cobbs, G. (1996). A model of the effects of parent and peer support on adolescent false self behavior. *Child Development*, 67, 360–374.
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, 60, 895–910.
- Hicks, J. A., & King, L. A. (2007). Meaning in life and seeing the big picture: Positive affect and global focus. *Cognition & Emotion*, 21, 1577–1584.
- Hicks, J. A., & King, L. A. (2008). Religiosity and positive mood as information about meaning in life. *Journal of Research in Personality*, 42, 43–57.
- Higgins, E. T. (1987). Self-discrepancy theory. *Psychological Review*, 94, 1120–1134.
- Higgins, E. T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 93–136). San Diego, CA: Academic Press.
- Horney, K. (1942). *Self-analysis*. Oxford, England: Norton.
- Horney, K. (1950). *Neurosis and human growth: The struggle toward self-realization*. Oxford, England: Norton.
- Johnson, J. T., Robinson, M. D., & Mitchell, E. B. (2004). Inferences about the authentic self: When do actions say more than mental states? *Journal of Personality and Social Psychology*, 87, 615–630.
- Johnston, I. (1997). Lecture on Aristotle's *Nicomachean Ethics* [Electronic version]. Retrieved March 27, 1982, from <http://records.viu.ca/~johnstoi/introser/aristot.htm>
- Jung, C. G. (1953). *Two essays in analytical psychology* (R. F. Hull, Trans.). New York: Pantheon.
- Kanagawa, C., Cross, S. E., & Markus, H. R. (2001). "Who am I?": The cultural psychology of the conceptual self. *Personality and Social Psychology Bulletin*, 27, 90–103.
- Kashima, Y., Kashima, E., Farsides, T., Kim, U., Strack, F., Werth, L., & Yuki, M. (2004). Culture and context-sensitive self: The amount and meaning of context-sensitivity of phenomenal self differ across cultures. *Self and Identity*, 3, 125–141.
- Kernis, M. H., & Goldman, B. M. (2004). Authenticity, social motivation and well-being. In J. P. Forgas, K. D., Williams, & S. Laham (Eds.), *Social motivation: Conscious and unconscious processes* (pp. 210–227). New York: Cambridge University Press.
- Kernis, M. H., & Goldman, B. M. (2006). A multi-component conceptualization of authenticity: Theory and research. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 283–357). New York: Academic Press.
- Keyes, C. L. M., & Haidt, J. (2003). *Flourishing: Positive psychology and the life well-lived*. Washington, DC: American Psychological Association.
- Kierkegaard, S. (1983). *The sickness unto death* (H. F. Hong & E. H. Hong, Trans.). Princeton, NJ: Princeton University Press. (Original work published in 1849)
- King, L. A., Hicks, J. A., Krull, J., & Del Gaiso, A. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90, 179–196.
- Laing, R. D. (1960). *The divided self*. New York: Pantheon.
- Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all your eggs in one cognitive basket. *Social Cognition*, 31, 95–120.
- Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology*, 52, 663–676.
- Lofquist, L. H., & Dawis, R. V. (1991). *Essentials of person-environment-correspondence counseling*. Minneapolis: University of Minnesota Press.
- Macquarrie, J. (1972). *Existentialism*. London: Penguin Books.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63–78.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology*, 74, 494–512.
- Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the science of love. *Personality and Social Psychology Review*, 7, 20–40.
- Miller, A. (1979). *The drama of the gifted child: The search for the true self*. New York: Basic Books.
- Neff, K. D., & Suizzo, M. (2006). Culture, power, authenticity, and psychological well-being within romantic relationships: A comparison of European Americans and Mexican Americans. *Cognitive Development*, 21, 441–457.
- Norton, D. L. (1976). *Personal destinies: A philosophy of ethical individualism*. Princeton, NJ: Princeton University Press.
- Pojman, L. (2006). *Who are we? Theories of human nature*. New York: Oxford University Press.
- Robinson, M. D. (2007). Lives lived in milliseconds: Using cognitive methods in personality research. In R. W. Robins, R. C. Fraley, & R. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp. 345–359). New York: Guilford Press.
- Rogers, C. (1951). *Client-centered therapy*. Boston: Houghton Mifflin.
- Rosenthal, R., Rosnow, R. L., & Rubin, D. B. (2000). *Contrasts and effect sizes in behavioral research*. New York: Cambridge University Press.
- Ryan, R. M., & Deci, E. L. (2000). Self determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual review of psychology* (Vol. 52, pp. 141–166). Palo Alto, CA: Annual Reviews.
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13–39.
- Schimmel, J., Arndt, J., Banko, K. M., & Cook, A. (2004). Not all self-affirmations were created equal: The cognitive and social benefits of affirming the intrinsic (vs. extrinsic) self. *Social Cognition*, 22, 75–99.
- Schimmel, J., Arndt, J., Pyszczynski, T., & Greenberg, J. (2001). Being accepted for who we are: Evidenced that social validation of the intrinsic self reduces general defensiveness. *Journal of Personality and Social Psychology*, 80, 35–52.
- Schneider, K. J. (1999). *The paradoxical self: Toward an understanding of our contradictory nature*. Amherst, NY: Humanity Books.
- Schneider, K. J. (2004). *Rediscovery of awe: Splendory, mystery, and the fluid center of life*. St. Paul, MN: Paragon House.
- Sheldon, K. M., & Gunz, A. (2008). *What are we being true to when we are being true to ourselves? Examining five conceptions of psychological authenticity*. Manuscript submitted for publication.
- Sheldon, K. M., Ryan, R. M., Rawsthorne, L., & Ildardi, B. (1997). Trait self and true self: Cross-role variation in the Big-Five traits and its relations with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology*, 73, 1380–1393.
- Steger, M. F., & Frazier, P. (2005). Meaning in life: One link in the chain from religion to well-being. *Journal of Counseling Psychology*, 52, 574–582.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in

- Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53, 80–93.
- Steger, M. F., & Kashdan, T. B. (2007). Stability and specificity of meaning in life and life satisfaction over one year: Implications for outcome assessment. *Journal of Happiness Studies*, 8, 161–179.
- Taylor, S. E., Brown, J. D., Colvin, C. R., Block, J., & Funder, D. C. (2007). Issue 6: Do positive illusions lead to healthy behavior? In J. A. Nier (Ed.), *Taking sides: Clashing views in social psychology* (2nd ed., pp. 116–137). New York: McGraw-Hill.
- Waterman, A. S. (1984). *The psychology of individualism*. New York: Praeger Publishers.
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64, 678–691.
- Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies*, 9, 41–79.
- Winnicott, D. W. (Ed.). (1960). *The maturational process and the facilitating environment: Studies in the theory of emotional development*. New York: International UP.

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