The Dynamic Interplay Between Perceived True Self-Knowledge and Decision Satisfaction

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The present research used multiple methods to examine the hypothesis that perceived true self-knowledge and decision satisfaction are inextricably linked together by a widely held "true-self-as-guide" lay theory of decision making. Consistent with this proposition, Study 1 found that participants rated using the true self as a guide as more important for achieving personal satisfaction than a variety of other potential decision-making strategies. After establishing the prevalence of this lay theory, the remaining studies then focused on examining the proposed consequent relationship between perceived true self-knowledge and decision satisfaction. Consistent with hypotheses, 2 cross-sectional correlational studies (Studies 2 and 3) found a positive relationship between perceived true self-knowledge and decision satisfaction for different types of major decisions. Study 4 used daily diary methods to demonstrate that fluctuations in perceived true self-knowledge reliably covary with fluctuations in decision satisfaction. Finally, 2 studies directly examined the causal direction of this relationship through experimental manipulation and revealed that the relationship is truly bidirectional. More specifically, Study 5 showed that manipulating perceived knowledge of the true self (but not other self-concepts) directly affects decision satisfaction. Study 6 showed that this effect also works in reverse by manipulating feelings of decision satisfaction, which directly affected perceived knowledge of the true self (but not other self-concepts). Taken together, these studies suggest that people believe the true self should be used as a guide when making major life decisions and that this belief has observable consequences for the self and decision making.

Keywords: perceived self-knowledge, true self, decision satisfaction, lay theories

Just trust yourself. Then you will know how to live.—Johann Wolfgang von Goethe

A variety of philosophical and psychological perspectives converge in their suggestion that knowing *who* you really are makes it easier to know *how* to live. Specifically, a number of theorists suggest that living in accord with one's true self leads to a fulfilling and satisfying existence (e.g., Horney, 1950; Kierkegaard, 1849/1983; Miller, 1979; Rogers, 1959; Winnicott, 1960); a proposition that implies true self-knowledge may be a necessary prerequisite for making satisfying decisions. After all, returning to the Goethe quote above, how can you trust yourself, if you do not first know yourself? We believe that this basic premise reaches far beyond the realms of philosophical and psychological theory. Indeed, we propose that most people hold a similar lay theory that suggests the true self should be used as an internal compass to guide major life decisions (e.g., who to marry, what career to pursue, where to live). Furthermore, we propose that this lay "true-self-as-guide" theory has consequences for both the experience of decision satisfaction and the perception of true self-knowledge itself.

Specifically, we hypothesize that perceived true self-knowledge and decision satisfaction should serve as information about each other, forming a *bidirectional* relationship. That is, when people feel like they know who they are, they should feel confident about using the true self as a guide (and thus, feel satisfied with their decisions). At the same time, when people feel satisfied with their decisions, they should use those feelings as an indicator that they know who they really are (i.e., a satisfying decision suggests that one has read her or his internal compass accurately). Through a series of correlational, daily diary, and experimental studies, we investigated the prevalence of the "true-self-as-guide" lay theory, as well as the proposed consequent bidirectional relationship.

The Self and Decision Making

The Self as an Internal Compass

People navigate their daily existence by making choices between a seemingly infinite number of possibilities (e.g., children are told that they can grow up to be anything they want to be, we choose our mate from a seemingly endless number of potential partners). Although this freedom may sound appealing, a number of psychological perspectives suggest that being confronted with too much choice can foster feelings of anxiety and fear (e.g., Fromm, 1969; May, 1950; Schwarz, 2004). In order to mitigate these feelings, people are likely to look to the self for guidance (Baumeister, 1991; Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985). That is, in the absence of clear societal or cultural guidance, choices become personal and idiosyncratic. To illustrate, although

the process of selecting the "perfect" career among a seemingly endless number of viable alternatives has the potential to feel overwhelming, the ease of the choice, and ultimate satisfaction with the decision, should be facilitated to the extent that the choice is closely aligned with one's self-concept.

The idea that the self guides decision making is consistent with a number of classic theories that highlight the consequences of making choices that are (in)consistent with the self-concept (e.g., cognitive dissonance, Festinger, 1957; self-discrepancy, Higgins, 1987; self-verification theory, Swann, Stein-Seroussi, & Giesler, 1992). The notion that the self-concept guides decision making is also clearly grounded in perspectives that highlight the role of possible selves in imagining the future (Erikson, 2007; Markus, 2006; Wurf & Markus, 1991) and in self-regulation (Hoyle & Sherrill, 2006; Oyserman, Bybee, & Terry, 2006; Oyserman, Bybee, Terry, & Hart-Johnson, 2004).

Of particular relevance to the current discussion, self-to-prototype matching (Niedenthal, Cantor, & Kihlstrom, 1985) directly suggests that people use the self as a guide to decision making. According to this perspective, when people are faced with decisions, they compare their self-concept with that of the prototypical person who would behave in a certain way. If the self-concept matches the prototype, then people are more likely to behave in a similar fashion. Evidence for self-to-prototype matching has been found for a variety of decisions including housing (Niedenthal et al., 1985), college enrollment (Lane & Gibbons, 2007), graduate school attendance (Burke & Reitzes, 1981), career choice (Cheryan & Plaut, 2010; Moss & Frieze, 1993), and preferences for school subjects (Hannover & Kessels, 2004; Kessels, 2005).

Not only are people motivated to find consistency between their self-concept and their choices, they also feel better when they achieve this consistency. For example, research on the self-concordance model (Sheldon, 2002; Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001) suggests that when people pursue goals that are concordant with the self, they are more likely to attain those goals and experience greater well-being. Similarly, McGregor and Little (1998) found that the extent to which people believe their personal projects reflect their core self-aspects predicts enhanced experience of meaning in life. Of importance to the current research, the positive consequences of self-concordant goal pursuit are likely to further reinforce the propensity to use the self-concept as a guide.

Given the link between the self-concept and decision making, it is important to consider how perceived self-knowledge influences this process. Again, in order for a compass to be functional, one must first be able to read it. This idea is supported by empirical studies in the career choice literature that suggest a link between identity development (Erikson, 1956, 1980) and various elements of career choice. For example, identity development has been linked to career decidedness (Cohen, Chartrand, & Jowdy, 1995; Munley, 1975; Weyhing, Bartleet, & Howard, 1984), career commitment (Blustein, Devenis, & Kidney, 1989), and career satisfaction (Valliant & Valliant, 1981). Furthermore, career interventions often encourage participants to achieve a clear understanding of who they are in order to facilitate their decision making (Lent & Fouad, 2011). This work suggests that developing a clear understanding of one's self promotes the ability to make satisfying

decisions, whereas a lack of self-knowledge may facilitate discontent with one's major life choices.

In a related vein, the activation of existing self-knowledge (which is likely to increase the feeling that one knows his- or herself) has been shown to reduce the experience of conflict when making hypothetical career decisions (Nakao et al., 2010; Nakao, Takezawa, Shiraishi, & Miyatani, 2009). Specifically, participants who wrote about the self (vs. another person) were quicker to make choices among pairs of potential careers (e.g., "Would you rather be a painter or a lawyer?") and also experienced a decrease in neural activity associated with conflict. Consistent with the "true-self-as-guide" idea, these studies revealed that self-knowledge activation reduced the experience of conflict by biasing the participant toward one of the possible options.

Similarly, self-concept clarity (Campbell, 1990) positively predicts the use of self-to-prototype matching (Setterlund & Niedenthal, 1993). Though self-concept clarity is not the same as perceived self-knowledge, per se (i.e., it measures both self-consistency and perceived self-knowledge, DeMarree & Morrison, 2011), this finding indirectly suggests that the feeling that you know who you are may be an important facilitator of decision-making processes.

In the current article, we build on research examining the link between the self and decision making by specifically investigating whether individual differences in *perceived* self-knowledge influence decision satisfaction. We predict that feelings of self-knowledge should increase confidence in one's ability to make optimal decisions, thus bolstering satisfaction with those decisions. Conversely, when perceived self-knowledge is low, we predict people should question their ability to make optimal decisions and feel less satisfied with their choices.

Next, we turn to the possibility that this effect is bidirectional and that feelings of decision satisfaction may directly influence the extent to which individuals feel that they know their selves.

Decision Satisfaction as Information About Self-Knowledge

Research suggests that people rely on a number of potential sources of self-knowledge, such as social comparison (Festinger, 1954), self-perception (Bem, 1972), appraisals from others (Cooley, 1902; Mead & Morris, 1934), introspection (Sedikides & Skowronski, 2009), and self-observation (Kenny & DePaulo, 1993; Schoeneman, 1981; Shrauger & Schoeneman, 1979). Of particular relevance to the current article, the decisions we make may become sources of self-knowledge. For example, career identity is considered a core component of overall identity (Erikson, 1968; Kroger, Martinussen, & Marcia, 2010; Skorikov & Vondracek, 1998). Baumeister (1987) similarly suggests that the major decisions we make in life (e.g., deciding on a career or who to marry) are self-defining. In fact, Baumeister argues that these decisions are so integral to one's self-definition that the struggle to make satisfying choices can lead to an "identity crisis."

Although we know that decisions can influence the content of the self-concept, the factors that contribute to subjective feelings of self-knowledge are less clear. For example, what type of information do people use to determine whether they know their true selves? This is an important question considering that people often question whether they have an accurate sense of who they really

are (Baumeister, 1987; Schlegel, Vess, & Arndt, 2012; Waterman, 1984). We suggest that decision satisfaction should serve as a signal that one successfully followed one's inner guide and, thus, must know one's self. Consider the example of a career choice. When a person feels dissatisfied with her or his career, those negative feelings may trigger questions about whether she or he is really is the "kind of person" who should be in that profession. In turn, these thoughts may call into question whether she or he really knows her- or himself at all (e.g., "If I'm not who I thought I was, then who am I?"). By comparison, when a person feels satisfied with her or his career choice, feelings of self-knowledge should increase (e.g., "I love what I do, I was right, this *IS* who I am"). In this way, feelings of satisfaction should serve as an indicator of how well an individual knows her- or himself.

In sum, we propose a bidirectional relationship between perceived true self-knowledge and decision satisfaction. In the current article, we aimed to investigate this relationship through a series of studies that combine correlational, daily diary, and experimental methods.

Overview of the Current Studies

We conducted six studies to test these ideas. We specifically focused on perceived knowledge of one's "true self" because this specific aspect of the self has been empirically linked to the experiences of meaning, fulfillment, and well-being (e.g., Kernis & Goldman, 2006; Lakey, Kernis, Heppner, & Lance, 2008; Schlegel, Hicks, Arndt, & King, 2009; Schlegel, Hicks, King, & Arndt, 2011; Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997), suggesting a natural association between perceived true self-knowledge and decision satisfaction.

True Versus Actual Selves

In order to determine whether our predicted effects are uniquely associated with perceived true self knowledge, or would be observed for any type of perceived self-knowledge, we also assessed the relationship between decision satisfaction and another aspect of the self-concept, perceived *actual* self-knowledge (Bargh, McKenna, & Fitzsimons, 2002; Schlegel et al., 2009, 2011). Next, we briefly describe these similar, yet unique aspects of the self.

According to theorists, the true self represents who a person really is *inside*, whereas the actual self represents how a person *outwardly* behaves (e.g., Bargh et al., 2002; Higgins, 1987; Laing, 1969; Winnicott, 1960). Children as young as 5 make similar distinctions between internal aspects of the self (such as thoughts and feelings) and external aspects of the self (such as behavior; Bennett, Michell, & Murray, 2009; Burton & Mitchell, 2003). Later in development, the distinction between inner and outer aspects of the self becomes immensely important to self-definition processes (Harter, 2002), with inner aspects of the self consistently judged as more indicative of who the person *really* is (Johnson, Robinson, & Mitchell, 2004).

Though lay people may not always use the terms *actual self* and *true self* to describe these self-concepts, they do believe that these two aspects of the self (inner vs. outer) differ in meaningful ways (e.g., Andersen, 1984; Andersen & Ross, 1984; Johnson et al., 2004). For example, the outer self is perceived as more controlla-

ble (i.e., people can decide whether or not to behave in ways that are consistent with their inner self), whereas the inner self feels like it "bubbles up" from within and is relatively outside of the person's control (e.g., Andersen, 1984, 1987; Andersen & Ross, 1984). These self-concepts also differ in likability. Specifically, people report liking their true self more than their actual self, despite that the self-reported content of their actual self tends to be judged as more socially desirable than the self-reported content of their true self (Schlegel et al., 2009). These data suggest that the true and actual self-concept represent unique entities in people's minds (even if they do not use the specific terminology used in this article).

Although the true self and the actual self may be distinguishable from each other, it is important to note that they also often share important characteristics. Indeed, the more characteristics they share, the better it is for individual's psychological well-being (e.g., Kernis & Goldman, 2006). Nonetheless, the idea that people possess an "inner" self that is not always revealed in social situations seems to resonate with most people (e.g., Andersen, Lazowski, & Donisi, 1986; Goffman, 1959; Sheldon et al., 1997; Snyder, 1974). Indeed, empirical research shows that, on average, people's self-reported true and actual self traits are only about 40% overlapping (Schlegel et al., 2009).

Methodological Approach

As an indirect means of assessing perceived self-knowledge of both true and actual self-concepts, we relied on the metacognitive experience of ease (Schwarz, 1998; Schwarz & Clore, 1996) participants felt when describing their self-concepts. People use the experience of ease (or difficulty) as a cue for how much they know about a particular topic (Alter & Oppenheimer, 2009; Schwarz, 2004). Thus, we reasoned that the experience of ease during a self-description task would be an effective means of measuring and manipulating the degree to which one feels as if he or she knows his or her self (Schlegel et al., 2011).

Before examining the proposed bidirectional relationship itself, we first sought to examine the prevalence of the true-self-as-guide lay theory of decision making (Study 1). We then conducted five additional studies in which we examined the bidirectional relationship that we believe results from the prevalence of this theory. In the first two studies, we assessed individual differences in the experience of ease in thinking about one's true and actual self as a predictor of decision satisfaction for recent important decisions (Study 2) and hypothetical career choices (Study 3). Study 4 was a daily diary study that we used to assess whether day-to-day fluctuations in perceived self-knowledge correlated with daily levels of satisfaction with a major decision.

It is important to note that we present decision satisfaction as the outcome, rather than the predictor, in these first four studies. However, this should not be taken as evidence that we think this direction of this relationship is more important than the other. In Study 1, the data were collected in this manner because it more closely matches the lay theory that we believe people explicitly hold (i.e., that self-knowledge should guide decision making). The idea that decision satisfaction serves as information about self-knowledge is theoretically interesting, but less intuitive. In Studies 2–4, decision satisfaction is presented as the outcome to make it easier to control for perceived actual self-knowledge, by including

it as either a control condition or a covariate. However, these studies are ultimately correlational in design and are thus entirely consistent with the proposed *bidirectional* relationship. Because we think both of these directions are equally important theoretically, we directly tested both causal directions of the proposed relationship by manipulating both perceived self-knowledge (Study 5) and decision satisfaction (Study 6) to observe the effect of each manipulation on the other variable.

Across all studies, we assessed multiple types of self-concepts and controlled for potentially related predictors (i.e., self-esteem, mood). On the basis of our proposed bidirectional relationship, we predicted that perceived true self-knowledge and decision satisfaction would be consistently correlated with each other and, importantly, that manipulating either variable would result in a corresponding change in the other variable.

Study 1

The goal of Study 1 was to examine the extent to which people explicitly hold the proposed true-self-as-guide lay theory of decision making. To meet this aim, we asked a sample of adults to report how important they thought a number of potential decision-making strategies were for the experience of personal satisfaction. Embedded within these strategies were items that assessed the use of the true self as a guide to decision making.

Method

Participants. Sixty individuals (31 female, 27 male, two not reporting) recruited from Amazon's Mechanical Turk platform participated in the study and were compensated with a payment of $.50. Amazon Mechanical Turk is an online system in which requestors can pay workers to complete various tasks in exchange for small payments. Data collected from Amazon Mechanical Turk have been demonstrated to be equally (or more) representative and reliable as college student samples (Buhrmester, Kwang, & Gosling, 2011). Participants were from the United States, diverse in age ($M = 36.56$, $SD = 13.37$, range $= 18–68$), and predominantly White (79.7%) and non-Hispanic (93.3%).

Materials and procedure. Participants completed the study through an online survey after accepting the job posting on Amazon Mechanical Turk. Participants completed the measures described below as well as several unrelated measures outside the scope of the current article.

Before completing the lay theory items, participants were prompted to

> Please take a few moments to think about occasions when you had to make an important decision. These could be decisions about your career, close relationships, making a large purchase, moving to a new city, or any other significant decision you have made. Take some time to consider the different factors that can influence how satisfied you are with decisions like these.

Participants were then presented with 36 potential decision-making strategies (presented in random order) and rated how important they thought each was for making satisfying decisions on a 7-point scale (1 = *strongly disagree*; 4 = *neither agree nor disagree*; 7 = *strongly agree*). These items were then grouped into the following seven composites based on a priori categories (descriptive statistics presented in Table 1): true-self-as-guide (five

items, $\alpha = .84$, e.g., "use their true self as a guide" and "following who they really are"), information from others (nine items, $\alpha = .87$, e.g., "do what's popular" and "follow their friend's advice"), rational processing (six items, $\alpha = .81$, e.g., "use a 'pros and cons' list" and "take their time and weigh their options"), intuition (three items, $\alpha = .67$, e.g., "follow their gut" and "rely on intuition"), religious (three items, $\alpha = .93$, e.g., "use their religious beliefs as a guide" and "follow the advice of a religious leader [e.g., pastor, rabbi, priest]"), supernatural sources (three items, $\alpha = .81$, e.g., "let fate decide" and "look for a sign from the universe") and considering effects on others (two items, $\alpha = .73$, i.e., "consider how the decision will affect other people [e.g., family, friends]") and "consider the collective good of their family"). We also included five single-item measures that assessed other self-concepts that may be relevant to decision making: ideal self ("consider who they ideally want to be"), past self ("use what they have done in the past as a guide"), future self ("consider who they want to become in the future"), actual self ("use their everyday behavior as a guide"), and ought self ("follow who they think they ought to be as a guide"). A complete list of the items included in the composites can be obtained from the authors.

Results and Brief Discussion

Means and standard deviations for all lay theory scales are presented in Table 1 in order from highest to lowest importance ratings. As can be seen in the table, the true-self-as-guide theory was rated as the most important strategy, and the mean for the True-Self-as-Guide subscale was significantly higher than all but two other sources: rational processing and future self as guide. This suggests that the true-self-as-guide lay theory of decision making is as pervasive as lay theories about the importance of rational decision-making process and considering who you want to become in the future.

In addition to its high rank relative to the other potential sources, an examination of the distribution for the true-self-as-guide composite revealed high overall levels of endorsement. Indeed, the mean (5.89) was well above the midpoint of the scale (4), and there was relatively low variability in the scores ($SD = .86$). Further-

Table 1

Descriptive Statistics and Correlations for Importance Ratings in Study 1

Decision-making strategy	M	SD	r
True self as guide	5.89$_a$	.87	
Future self as guide	5.88$_a$	1.04	.55**
Rational processing	5.80$_{a,b}$	.79	.28*
Ideal self as guide	5.48$_b$	1.28	.63**
Everyday self as guide	5.08$_c$	1.07	.03
Past self as guide	4.98$_c$	1.16	.10
Considering the effect on others	4.94$_c$	1.23	−.02
Intuition	4.85$_c$	1.08	.32*
Ought self as guide	4.65$_c$	1.58	.12
Information from others	3.56$_d$	1.10	−.28*
Religion	3.47$_d$	1.88	.10
Supernatural sources	2.92$_e$	1.58	−.25

Note. Means that do not share a subscript are significantly different from each other ($p < .05$). To save space, correlations are only reported between the True Self as Guide scale and other subscales. A full correlation table may be obtained from the authors.
* $p < .05$. ** $p < .01$.

more, the frequencies revealed that less than 4% of the participants had an individual mean that indicated disagreement (i.e., below the midpoint of the scale, which was labeled *neither agree nor disagree*), and less than 9% had a mean that was below 5 (i.e., the point on the scale that clearly indicates at least some agreement).

The pattern of results for Study 1 provides compelling evidence that people explicitly believe that following one's true self is an important strategy for making personally satisfying decisions. Given this evidence, it makes sense that perceived true self-knowledge and decision satisfaction may indeed serve as information about each other. In the next five studies, we examined this potential consequence of holding a true-self-as-guide lay theory of decision making.

Study 2

In Study 2, participants were randomly assigned to describe either their true or their actual self and then indicated how easy it was for them to complete the task. Participants then listed two recent major life decisions and indicated their satisfaction with those decisions. We predicted that subjective ease would predict decision satisfaction in the true self condition, but not in the actual self condition.

Method

Participants. One hundred sixty-one undergraduate students (109 female; mean age = 18.65, SD = .94) enrolled in an introductory psychology course at Texas A&M University participated in the study for partial fulfillment of a course requirement. Ethnicity items were inadvertently omitted from this study.

Materials and procedure. Participants completed the study on paper in a classroom with up to four other participants (desks were arranged to maximize privacy). Participants were informed that they would be participating in a study that explores the way that people describe and think about different aspects of the self and completed the measures described below, as well as several measures outside the scope of the current article.

Self-description task. Participants were randomly assigned to list the 10 "best words" that described either their true self or their actual self.[1] In the true self condition, participants read the following instructions:

> Specifically, we'd like you to think about the characteristics, roles or attributes that define who you really are—even if those characteristics are different than how you sometimes act in your daily life. For example, think about the following song lyric: "Can you see the real me?" Imagine this is a song about you—how would you describe the real you?

Participants in the actual self condition read the following instructions:

> Specifically, we'd like you to think about the characteristics, roles or attributes that define who you are in your everyday life—even if those characteristics are different from those that define who you believe you really are. For example, think about the following song lyric: "Do you know what I do?" Imagine this is a song about you—how would you describe the everyday you?[2]

After completing their lists, participants were then asked to indicate how easy it was to think of the 10 words on a 10-point

scale (1 = *extremely difficult*; 10 = *extremely easy*; M_{TS} = 5.94, SD_{TS} = 2.20; M_{AS} = 5.29, SD_{AS} = 1.94). This measure served as our indicator of perceived self-knowledge. Unexpectedly, the true self was rated as easier to describe than the actual self, $t(159)$ = −1.99, p = .05.

Decision satisfaction. Next, participants were asked to briefly describe two recent major life decisions that had "the potential for long-lasting or important consequences." After describing each decision, they indicated their agreement with six statements that assessed their satisfaction with that decision using an 11-point scale (1 = *completely disagree*; 11 = *completely agree*). Example items include, "I am completely confident I made the right decision," "I am completely satisfied with the decision," and "This decision is consistent with my core values and beliefs." Responses were averaged across both decisions to produce a composite decision satisfaction score (M = 8.08, SD = 1.55, α = .80).

Mood. Because people generally like their true self more than their actual self (Schlegel et al., 2009), writing about the true self may be expected to increase positive mood and/or decrease negative mood relative to writing about the actual self. Such unintended effects on mood would be expected to bias decision satisfaction ratings (e.g., Schwarz & Clore, 1983). Thus, participants rated five positive affect (PA) adjectives (e.g., *happy*, *pleased*; M = 4.32, SD = 1.32, α = .88) and six negative affect (NA) adjectives (e.g., *frustrated*, *unhappy*; M = 3.21, SD = 1.24, α = .73; Diener, Smith, & Fujita, 1995). Participants indicated how much they felt each emotion "right now" on a 7-point scale (1 = *not at all*; 7 = *extremely*). An independent samples t test revealed that the true and actual self conditions did not differ in PA, $t(159)$ = 0.46, p = .65, or NA, $t(159)$ = −0.19, p = .85. Nonetheless, we included mood as a covariate in the analyses.

State self-esteem. Finally, to further rule out alternative explanations, we also included a measure of state self-esteem. Given the relationship between self-certainty and self-esteem (Baumgardner, 1990; Campbell, 1990), this allowed us to address the possibility that the predicted effects are driven by differences in self-esteem. Participants completed Heatherton and Polivy's (1991) State Self-Esteem Scale, which includes 20 items designed to measure the respondent's current level of self-esteem. Example items include, "I feel confident about my abilities" and "I am worried about whether I am regarded as a success or failure." Responses were made on a 5-point scale (1 = *not at all true*; 5 = *extremely true*). Responses to all 20 items were averaged to create a composite (M = 3.47, SD = .69, α = .83). An independent samples t test revealed that the true and actual self conditions did not differ in state self-esteem, $t(159)$ = −1.64, p = .10, but we

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[1] We also attempted to manipulate the ease of the task by having participants complete the self-description task with either their dominant or their nondominant hand (e.g., Briñol & Petty, 2003). However, analysis of the ease item revealed that this manipulation failed; subjective ease for dominant-hand participants (M = 5.60, SD = 2.11) was not significantly different from nondominant-hand participants (M = 5.63, SD = 2.09), $t(159)$ = −0.09, p = .93. Thus, we collapsed across this manipulation and only examined individual differences in self-reported ease in the true and actual self conditions.

[2] We expected that the term *actual self* may be confusing to some participants; thus, we referred to the actual self as the *everyday self* in the study materials. We retain use of the term actual self in the presentation of our results, however.

again included this as a covariate in the analyses to ensure that state self-esteem did not explain any of our results.

Results and Brief Discussion

Bivariate correlations for all study variables are presented, separately by condition, in Table 2.

A multiple regression was computed in order to test our main prediction that subjective ease of the self-description task would be associated with decision satisfaction in the true self condition, but not in the actual self condition. Ease scores were centered prior to the analyses (Aiken & West, 1991) and entered along with the effects-coded variable for condition (-1 = actual self; 1 = true self) and the interaction effect (the product of the condition variable and centered ease scores).[3] Semipartial r^2 values are reported following the coefficients for all predictors.

The main effects of ease ($b = .07$, $p = .27$; $r^2 = .007$) and condition ($b = -.08$, $p = .50$; $r^2 = .003$) were both nonsignificant. However, as predicted, the results revealed a significant interaction between ease and condition ($b = .15$, $p = .01$; $r^2 = .04$). As shown in Figure 1 and confirmed with simple slope analyses (conducted with a condition dummy variable recoded appropriately for each simple slope), subjective ease was positively related to decision satisfaction in the true self condition ($b = .22$, $p = .006$) and unrelated to decision satisfaction in the actual self condition ($b = -.09$, $p = .33$). In order to more fully explore the pattern of the interaction, a predicted means tests was conducted and revealed that the effect of self (true vs. actual) was not significant for people who experienced the task as easy ($b = .47$, $p = .18$), but was significant for people who experienced the task as difficult ($b = -.80$, $p = .02$). This suggests that people who reported low ease in the true self condition differed from all other participants. Thus, a lack of perceived *true* self-knowledge calls decision satisfaction into question, whereas a lack of perceived *actual* self-knowledge does not. The relatively high levels of decision satisfaction reported by all participants in the actual self condition (i.e., levels of decision satisfaction that are similar to true self participants who experienced the task as easy) suggests that people may assume that they are satisfied with their decisions unless they have reason to think otherwise. Such a pattern is consistent with a positive illusions perspective (Taylor & Brown, 1988; Taylor, Brown, Colvin, Block, & Funder, 2007).

Next, we ran a second regression that included the same primary predictors plus PA ($b = .27$, $p = .01$, $r^2 = .04$), NA ($b = -.02$,
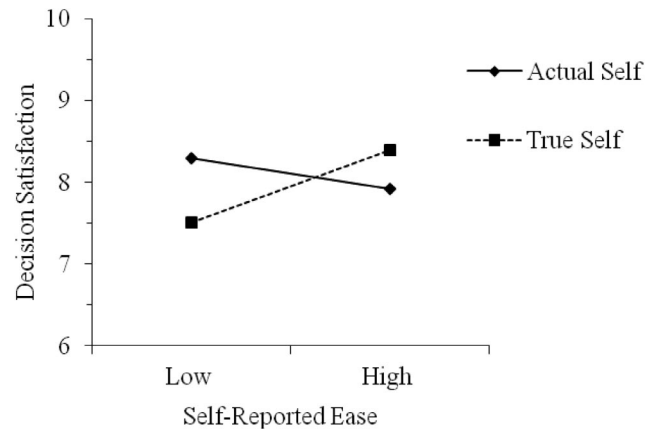

Figure 1. Decision datisfaction as a function of self-concept and ease of self-description conditions, Study 2.

$p = .90$, $r^2 = .0001$), and state self-esteem ($b = .38$, $p = .06$, $r^2 = .02$) as covariates to ensure that controlling for these potentially related factors would not alter the results. These analyses revealed that the interaction remained significant after including these covariates ($b = .15$, $p = .009$, $r^2 = .04$).

Study 2 provides initial evidence that perceived true self-knowledge and decision satisfaction are linked together. Specifically, participants who experienced less perceived true self-knowledge (operationalized as ease of self-description) reported less decision satisfaction than their counterparts who experienced more perceived true self-knowledge. By comparison, perceived knowledge of the actual self was unrelated to decision satisfaction.

The decision satisfaction measure used in Study 2 was idiographic and thus necessitated the use of decisions participants made prior to the study. Although this suggests that perceived true self-knowledge is important to the current evaluation of important *past* decisions, it does not allow us to examine the relationship between perceived self-knowledge and decision satisfaction at the time the decision is made. Study 3 allowed us to do this by asking participants to complete a hypothetical decision-making task in the lab.

Study 3

In Study 3, we measured true and actual self ease as a within-subjects factor rather than a between-subject factor to allow us to better compare the influence of perceived true versus actual self-knowledge on decision satisfaction. After participants completed both of the self-description tasks used in Study 2, they completed a hypothetical decision-making task associated with future career preferences (a major life decision salient for most college students). Upon completion of the decision task, participants indi-

Table 2

Bivariate Correlations by Condition Among Variables in Study 2

Variable	1	2	3	4	5
1. Decision satisfaction	—	.31*	.53**	−.28*	.44**
2. Self ease	−.11	—	.34*	−.01	.12
3. Positive affect	.06	.27*	—	−.50**	.41**
4. Negative affect	−.15	−.05	−.46**	—	−.57**
5. State self-esteem	.06	.15	.22*	−.52	—

Note. Values above the diagonal represent the true self condition; values below the diagonal represent the actual self condition.
* $p < .05$.   ** $p < .01$.

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[3] Across all studies, we screened the data for both univariate and multivariate outliers by looking for any participants who were more than three standard deviations away from the mean on either the dependent variable or the continuous predictors that are of interest (i.e., not covariates) and by looking for any participants with standardized residuals greater than 3 in the primary analysis. Outliers meeting both criteria were removed from the data ($n = 1$ in Study 5; $n = 1$ in Study 6).

cated their level of satisfaction with their hypothetical choices. This allowed us to more closely approximate the influence of perceived self-knowledge during the decision-making process. We predicted that perceived true self-knowledge would be associated with decision satisfaction, whereas perceived actual self-knowledge would not be associated with decision satisfaction.

The decision-making task used in this study allowed us to examine the potential relationship between perceived self-knowledge and the experience of conflict while making decisions. Recently, Nakao and colleagues (2010) demonstrated that the activation of self-knowledge reduces conflict (operationalized as faster decision making) in this type of career choice task. This allowed us to examine whether individual differences in perceived true or actual self-knowledge would similarly predict faster responses to the choices. Although we believe decision *satisfaction* is uniquely associated with perceived true self-knowledge, the experience of decision conflict may be influenced by perceived knowledge of either self-concept (i.e., both inner feelings and outward behavior seem relevant to a hypothetical career choice). Because Nakao et al.'s study did not distinguish between the true and actual self, their self-knowledge task likely elicited both types of self information. Thus, their findings are consistent with the possibility that either or both self-concepts could influence reaction times. As such, we did not have any specific predictions about whether actual or true self-knowledge would reduce conflict during this task.

Method

Participants. One hundred twenty undergraduate students (50 female; mean age = 19.42, $SD = 1.50$) enrolled in an introductory psychology course at Texas A&M University participated in the study for partial fulfillment of a course requirement. Participants were predominantly White (77.5%) and non-Hispanic (97.0%).

Materials and procedure. Upon arrival, participants were escorted to a private computer and were informed that they would be participating in a study that explores the way that people describe and think about different aspects of the self. Participants then completed the measures described below, as well as several measures outside the scope of the current article.

Self-description task. Each participant listed 10 words that they believed best described their true self and 10 words that they believed best described their actual self. The order of presentation was counterbalanced, and each self was defined using the instructions from Study 2. After completing each list, participants indicated how easy the task was on an 11-point scale (1 = *not easy at all*; 11 = *extremely easy*; $M_{TS} = 6.48$, $SD_{TS} = 2.73$; $M_{AS} = 6.27$, $SD_{AS} = 2.43$). A dependent samples t test conducted on the whole sample revealed that the two selves did not differ in ease, $t(119) = 0.77$, $p = .44$.

In order to test for any order of presentation effects, we also created a dummy variable that represented which self-concept participants described first (0 = true self first, 1 = actual self first). We then conducted dependent samples t tests on the ease ratings separately for participants who described their true self first and participants who described their actual self first. This revealed that participants rated the second self they described as easier than the first self they described. Specifically, participants who described the true self first reported that it was easier to describe their actual

selves, $t(56) = 3.87$, $p < .001$, whereas participants who described their actual self first reported it was easier to describe their true self, $t(62) = -4.30$, $p < .001$. It is perhaps unsurprising that participants would consistently find the second task they completed easier than the first because the tasks were nearly identical (e.g., because a practice effect). Nevertheless, we included the counterbalancing dummy variable in the regression analyses as an additional covariate to ensure that any observed effects were not due to order of presentation effects.

Career choice task. Next, participants completed a career choice task adapted from Nakao and colleagues (2010). The career choice task consisted of 60 timed trials in which the participant quickly indicated which of two potential careers they preferred. Each trial consisted of a random pair of careers from a list of 54 possible career choices (e.g., accountant, social worker, engineer, politician). Response times were recorded ($M = 1964.57$ ms, $SD = 470.84$ ms). Following the task, participants completed two items that assessed their satisfaction with the decisions they made during the task on an 11-point scale (1 = *completely disagree/unsatisfied*; 11 = *completely agree/satisfied*): "I am completely confident I made 'good choices' during the career choice task" and "How satisfied do you think you would be with your choices later?" Responses to the two items were averaged to create a decision satisfaction score ($M = 8.41$, $SD = 1.64$, $r = .68$).

Mood and self-esteem. Participants indicated their agreement with three statements assessing PA ($M = 4.47$, $SD = 1.28$, $\alpha = .66$) and three statements assessing NA ($M = 2.72$, $SD = 1.52$, $\alpha = .78$) on a 7-point scale (1 = *not at all*; 7 = *extremely*). Participants also completed the 10-item Rosenberg (1965) Self-Esteem Scale with additional wording that focused participants on how they were feeling at that particular moment in time (e.g., "Right now, I feel that I am a person of worth, at least on an equal basis with others"; "Right now, I feel that I have a number of good qualities"). They indicated their agreement with each item on a 7-point scale (1 = *disagree strongly*; 7 = *agree strongly*; $M = 5.45$, $SD = 1.07$, $\alpha = .90$).

Results and Brief Discussion

Bivariate correlations for all study variables are presented in Table 3.

To test our main predictions, two sets of regression analyses were conducted. The first regression analysis examined satisfaction with one's decisions during the career choice task as a func-

Table 3
Bivariate Correlations Among Variables in Study 3

Variable	1	2	3	4	5	6	7
1. Career choice satisfaction	—						
2. Career choice latency	.08	—					
3. True self ease	.25**	−.03	—				
4. Actual self ease	.12	−.20*	.34**	—			
5. Positive affect	.20*	.01	.03	−.06	—		
6. Negative affect	−.07	−.11	−.11	−.04	−.35**	—	
7. Self-esteem	.20*	.12	.22*	.11	.46**	−.61**	—

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

tion of true and actual self ease ratings (semipartial r^2 reported following beta coefficients). Consistent with our predictions, the results revealed that true self ease ($\beta = .23$, $p = .02$, $r^2 = .05$), but not actual self ease ($\beta = .04$, $p = .68$, $r^2 = .001$) predicted decision satisfaction.

We then ran the same regression with PA ($\beta = .18$, $p = .09$, $r^2 = .02$), NA ($\beta = .09$, $p = .41$, $r^2 = .005$, $r^2 = .005$), self-esteem ($\beta = .12$, $p = .34$, $r^2 = .007$), and the order of presentation dummy variable included as covariates ($b = -.28$, $p = .16$, $r^2 = .02$). The results were essentially unchanged by including these covariates: True self ease ($\beta = .28$, $p = .01$, $r^2 = .05$) remained the only significant predictor of decision satisfaction (actual self ease: $\beta = .005$, $p = .96$, $r^2 = .001$).

The second set of regression analyses examined average response times during the decision-making task as a function of the same predictors. The results revealed that actual self ease had a significant effect, facilitating faster response times ($\beta = -.22$, $p = .03$, $r^2 = .04$). By comparison, true self ease was unrelated to response time ($\beta = .05$, $p = .63$; $r^2 = .002$). We then ran the same regression with PA ($\beta = -.07$, $p = .49$, $r^2 = .004$), NA ($\beta = -.04$, $p = .72$, $r^2 = .001$), self-esteem ($\beta = .13$, $p = .28$, $r^2 = .001$), and the order of presentation dummy variable included as covariates ($\beta = -.27$, $p = .01$, $r^2 = .06$). Actual self ease remained a significant predictor of response times ($\beta = -.29$, $p = .004$, $r^2 = .07$), whereas true self ease did not predict response times ($\beta = .15$, $p = .19$, $r^2 = .01$).

Overall, Study 3 conceptually replicated the findings of Study 2 by showing that self-reports of decision satisfaction were significantly related to perceived true self-knowledge. Interestingly, perceived actual self-knowledge (but not perceived true self-knowledge) predicted faster responding during the decision task, suggesting that participants who felt that they knew how they behave experienced less conflict when choosing between potential careers (see discussion for more on this unexpected finding).

Studies 2 and 3 provide converging evidence for the role of perceived true self-knowledge in decision satisfaction. However, these studies were limited to cross-sectional evaluations of past decisions or hypothetical decisions made in the lab. In Study 4, we sought to examine whether naturally occurring fluctuations in perceived true self-knowledge and decision satisfaction reliably covary over time.

Study 4

In Study 4, we used daily diary methods to assess the relationship between day-to-day fluctuations in decision satisfaction and perceived true self-knowledge. Specifically, participants completed five daily surveys that asked them to indicate their satisfaction with three predetermined decisions each day as well as their perceived (true and actual) self-knowledge that day. We also included several other potential predictors of daily decision satisfaction (daily PA and NA, daily self-esteem) to assess the robustness of the relationship between perceived self-knowledge and decision satisfaction.

Method

Participants. One hundred thirty-five undergraduate students recruited from the Texas A&M University psychology subject pool participated in the study for partial completion of course requirements. One hundred twenty-two of the participants completed demographic measures (90.4% of total; 75 females; mean age = 19.21, $SD = 1.10$). Participants were predominantly White (65.2%) and non-Hispanic (70.4%).

Materials and procedure. Participants completed a brief online survey each day for 5 consecutive days (Monday–Friday). Participants were instructed to complete the survey at approximately the same time each day. Response rates across the four waves were satisfactory, with 90% of participants completing at least three daily surveys and 69% of participants completing four or five of the daily surveys. Participants were included in all analyses regardless of how many surveys they completed. Additionally, there was very little missing data (i.e., three missing from 528 observations for true self-knowledge, one missing from 528 for actual self-knowledge, zero missing from all other variables in the analyses), thus we used listwise deletion where appropriate.

After the first daily survey, participants were instructed on subsequent daily surveys that

> The items you complete today will be similar to the items you complete on other days during this study. Although the items ask the same questions, you do not have to answer consistently from day to day. We want you to answer the questions based on how you feel right now.

The questions on each daily survey were identical and consisted of the following measures in addition to several additional measures outside the scope of the current article.

Self-knowledge. Each day, participants responded to a single item that assessed perceived true self-knowledge ("It is easy for me to think of who I really am"; $M = 8.57$, $SD = 2.44$) and an item that assessed perceived actual self-knowledge ("It is easy for me to think of who I am in my everyday life"; $M = 8.68$, $SD = 2.36$) on an 11-point scale (1 = *strongly disagree*; 11 = *strongly agree*). Participants were provided with a definition similar to those used in Studies 2 and 3 before responding to the questions each day. A dependent samples t test revealed that the ease ratings for the two selves were not significantly different from each other, $t(134) = -1.54$, $p = .13$.

Self-esteem and mood. As a measure of self-esteem, participants responded to two self-esteem items, "I felt that I had many positive qualities today" and "I am quite satisfied with who I am today" on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*; Heppner et al., 2008). These two items were highly correlated ($r = .86$, $p < .001$) and were averaged together to produce a composite self-esteem score ($M = 5.41$, $SD = 1.43$).

Participants also completed the same measures of PA ($M = 4.64$, $SD = 1.57$, $\alpha = .94$) and NA ($M = 3.02$, $SD = 1.24$, $\alpha = .78$) used in Study 2.

Decision satisfaction. To assess decision satisfaction, we asked participants to rate their current level of satisfaction with the same three decisions every day. We chose decisions that (a) were highly relevant to the sample, (b) were likely to have continued impact on one's daily life, and (c) might be expected to have feelings of satisfaction that fluctuate day-to-day. We used the idiographic data from Study 2 to help us identify three frequently reported decisions that fit these criteria: the decision to come to Texas A&M University; the choice of one's current major; and the decision to join (or abstain from joining) a sorority, fraternity, or

the Corps of Cadets (a group with a significant presence on the campus).

After thinking about each decision, participants responded to three of the six items used in Study 2 that assessed their satisfaction: "I am completely confident I made the right decision," "I am confident I will not regret this decision in the future," and "I am completely satisfied with the decision I made." Responses were made on an 11-point scale (1 = *strongly disagree*; 11 = *strongly agree*). Responses across all three decisions were averaged to create a composite decision satisfaction score ($M = 8.93$, $SD = 1.95$, $\alpha = .88$).

Results and Brief Discussion

In order to examine the within-person bivariate correlations, we computed the correlation coefficients for each participant using the within-person deviation scores (i.e., daily report-person mean; Snijders & Bosker, 1999). The averages of these within-person correlations are presented in Table 4.

Multilevel modeling, using hierarchical linera modeling (Version 6.02; Raudenbush & Bryk, 2002), was used to examine the effects of daily levels of perceived true and actual self-knowledge on decision satisfaction after controlling for the influence of daily self-esteem and daily mood. Multilevel modeling was used because it can appropriately accommodate for the lack of independence in the observations introduced by repeated observations within each person. The multilevel analyses included two levels. Level 1 represented the days nested within individuals, and Level 2 represented mean differences between individuals. In order to examine the purely within-person relationships among the variables and to control for the potential bias introduced by between-person differences in mean levels on the predictors of interest (Bryk & Raudenbush, 1992; Fleeson, 2007), all predictors were group-mean centered. No Level 2 predictors were included. Following the recommendations of Rosenthal, Rosnow, and Rubin (2000), we used the obtained t and df to calculate the effect size correlation r (see Oishi, Lun, & Sherman, 2007).

First, an unconditional model was estimated to calculate the intraclass correlation coefficient (e.g., Snijders & Bosker, 1999). This model revealed that 74% of the variance in decision satisfaction was at Level 2 (between individuals) and 26% was at Level 1 (within individuals, across days). This suggested that there was sufficient day-to-day fluctuation in decision satisfaction to fit a model trying to predict those fluctuations.

Thus, a model was estimated using restricted maximum likelihood estimation that included the true self and actual self ease variables as predictors of daily decision satisfaction. The results revealed a significant, positive relationship between daily true self

Table 4
Average Within-Person Correlations in Study 4

Variable	1	2	3	4	5	6
1. True self ease	—					
2. Actual self ease	.58	—				
3. Self-esteem	.23	.28	—			
4. Positive affect	.26	.24	.49	—		
5. Negative affect	−.18	−.21	−.38	−.43	—	
6. Decision satisfaction	.20	.21	.24	.27	−.23	—

ease and daily decision satisfaction ($b = .14$, $SE = .05$, $p = .01$, $r = .22$). By comparison, daily actual self ease was unrelated to daily decision satisfaction ($b = .05$, $SE = .05$, $p = .24$, $r = .10$). This suggests that day-to-day fluctuations in perceived true self-knowledge and decision satisfaction reliably covary within person.

We then estimated an additional model that also included the covariates PA ($b = .25$, $SE = .08$, $p = .001$, $r = .18$), NA ($b = -.08$, $SE = .08$, $p = .32$, $r = .05$), and self-esteem ($b = .03$, $SE = .06$, $p = .65$, $r = .02$). The relationship between true self ease and daily decision satisfaction was somewhat reduced, but remained marginally significant ($b = .07$, $SE = .04$, $p = .08$, $r = .15$), whereas the relationship between actual self and daily decision satisfaction remained nonsignificant ($b = .01$, $SE = .04$, $p = .74$, $r = .03$).

Finally, we also estimated two cross-lagged models that examined whether true self ease on a given day would predict decision satisfaction on the following day after controlling for the previous day's decision satisfaction. We also estimated the analogous model for decision satisfaction predicting true self ease. These models revealed that there were no carryover effects for either true self ease ($b = .03$, $SE = .04$, $p = .51$, $r = .06$) or decision satisfaction ($b = -.04$, $SE = .09$, $p = .69$, $r = .04$) on the following day. We believe this lack of a lagged effect is similar to the lack of carryover effects of mood on various constructs in diary studies (e.g., Bolger, DeLongis, Kessler, & Schilling, 1989; David, Green, Martin, & Suls, 1997; Gunthert, Cohen, & Armeli, 1999). Just as an individual's mood is argued to serve as information for a variety of judgments they may make at that time, we believe that feelings of true self-knowledge and decision satisfaction each serve as information for judgments about the other.

Study 4 suggests that feelings of true self-knowledge reliably covary with fluctuations in daily decision satisfaction; on days when participants felt greater true self-knowledge than their personal average, they also felt more satisfied with their college-relevant decisions. Notably, this relationship was significant even after controlling for a number of other potentially related variables that would be expected to similarly predict fluctuations in decision satisfaction (i.e., daily self-esteem, daily mood). It is worth noting that decision satisfaction judgments varied from day-to-day for the exact same decisions. To the best of our knowledge, this is the first study to suggest that significant within-person variance exists for ongoing evaluations of the same major life decisions.

Taken together, the findings from the first three studies provide compelling evidence for the relationship between decision satisfaction and feelings of true self-knowledge. However, the correlational nature of the studies precludes making any causal inferences about the direction of the relationship. The final two studies were designed to experimentally test our hypothesis that the casual relationship between true self-knowledge and decision satisfaction is bidirectional.

Study 5

In Study 5, we manipulated perceived self-knowledge by adapting a methodological paradigm used by Schwarz et al. (1991). In this paradigm, participants in the easy conditions are asked to list few (five) self-descriptors, whereas participants in the difficult conditions are asked to list many (18) self-descriptors. Because

listing five descriptors should be relatively easy, we expected participants in the easy conditions would believe they possess more self-knowledge than their counterparts in the difficult conditions.[4] After completing the self-description task, participants completed measures of decision satisfaction. The ease manipulation (easy, difficult) was crossed with three self-concepts (actual, true, ideal) to create a 2 × 3 design.

Study 5 included the ideal self-concept as an additional comparison to the true and actual self-concepts. Because the ideal self-concept is generally positive, the inclusion of this condition allowed another means of determining whether the observed effects of perceived true self-knowledge were driven by the true self per se or by the positive nature of the self-concept. The ideal self also makes a particularly relevant comparison because people use the ideal self as a guide to decisions related to self-presentation and self-enhancement (e.g., Chassin et al., 1981; Higgins, 1987; Niedenthal & Mordkoff, 1991), suggesting that it may have important implications for decision satisfaction.

Additionally, including the ideal self as a comparison allowed us to examine the possibility that the true self is actually a version of the ideal self. Perhaps participants conflate who they most want to be with who they think they really are. To the best of our knowledge, there are no previous studies that directly compare how perceived true and ideal self-knowledge similarly and/or differentially influence self-relevant outcomes. Thus, we assessed the ease of ideal self description as both a between-subjects (Study 5) and within-subjects (Study 6) variable to explore this possibility.

Consistent with our previous findings, we expected that the manipulated ease of describing one's true self would influence decision satisfaction, whereas the manipulated ease of describing one's actual or ideal self would not influence decision satisfaction.

Method

Participants. One hundred sixty-two participants (107 female; mean age = 18.46, SD = .81) enrolled in an introductory psychology course at Texas A&M University participated for partial fulfillment of a course requirement. Participants were predominantly White (76.5%) and non-Hispanic (83.3%).

Materials and procedure. Upon arrival, participants were escorted to a private computer and were informed that they would be participating in a study that explores the way that people describe and think about different aspects of the self. Participants then completed the measures described below, as well as several measures outside the scope of the current article.

Self-description task. Participants in the true and actual self conditions read instructions similar to those used in previous studies. In the ideal self conditions, participants were asked to think about the "characteristics, roles, or attributes that define who you *want to be*—even if those characteristics are different than how you sometimes act in your daily life or who you think you really are." Participants in the easy conditions were asked to generate five words, whereas participants in the difficult conditions were asked to generate 18 words that best described their true, actual, or ideal self. As a manipulation check, participants were asked to indicate how easy it was to generate their list of words on an 11-point scale (1 = *not at all easy*; 11 = *very easy*).

Decision satisfaction task. Next, participants completed a decision satisfaction task nearly identical to the one used in Study 4.

The only difference was that we added a fourth decision and expanded the decision satisfaction measure from three to six items because we had more space and time available than in the daily diary study. In addition to the three decisions used in Study 4, we asked participants to also think about a decision related to close personal relationships (i.e., deciding to enter, continue, or end a friendship or romantic relationship). After thinking about each of the decisions, participants completed the same six decision satisfaction items used in Study 2. Responses to the six items across all four decisions were averaged to create a composite decision satisfaction score (M = 5.26, SD = .74, α = .81). Descriptive statistics for each condition are presented in Table 5.

PA, NA, and self-esteem. Finally, participants indicated their agreement with three statements assessing PA (M = 4.61, SD = 1.20, α = .61) and three statements assessing NA (M = 2.62, SD = 1.45, α = .76) as well as the adapted Rosenberg (1965) self-esteem scale used in Study 3 (M = 5.67, SD = 1.12, α = .92).

Results and Brief Discussion

As a manipulation check, an analysis of variance (ANOVA) was conducted in which the self conditions (true, actual, ideal) and the ease manipulation (easy, difficult) were the independent variables, and ease of self-descriptions was the dependent variable. Results confirmed that participants in the easy conditions experienced the task as easier (M = 6.64, SD = 2.47) than participants in the difficult conditions (M = 5.09, SD = 2.29), $F(1, 155)$ = 18.68, p < .001, η^2 = .10. However, an unexpected main effect of self also emerged, $F(2, 155)$ = 8.10, p < .001, η^2 = .08. Post hoc comparisons (Tukey's honestly significant difference test) indicated that participants in the ideal self (M = 6.52, SD = 2.32) and true self (M = 6.24, SD = 2.44) conditions reported that the self-description task was easier than participants in the actual self (M = 4.82, SD = 2.46; ps < .01) conditions (true and ideal did not differ from each other; p = .80). No interaction was found between the self conditions and the ease manipulations (p = .16), suggesting that the ease manipulation was equally effective within each self-concept.

The primary analysis was an ANOVA, with the main effects of self and ease and their interaction as the only predictors of decision satisfaction. This analysis revealed that the main effects for self, $F(2, 155)$ = 0.62, p = .54, η^2 = .008, and ease, $F(1, 155)$ = 0.002,

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[4] In a pilot study with an independent sample (N = 47), participants were randomly assigned to one of four conditions in a 2 (easy, difficult) × 2 (true, actual) design and were asked to complete measures of task ease, perceived (true or actual) self-knowledge, PA, NA, and self-esteem. Analyses revealed that participants in the easy conditions (M = 6.90, SD = 2.15) reported that the task was easier than participants in the difficult conditions (M = 5.09, SD = 2.25), $F(1, 68)$ = 12.06, p = .001. Neither the self manipulation (p = .72) nor the interaction between the self and ease manipulations (p = .19) influenced ratings of task ease. The same was observed for reports of perceived self-knowledge; participants in the easy conditions (M = 8.57, SD = 2.10) reported greater perceived self-knowledge than participants in the difficult conditions (M = 7.24, SD = 1.90), $F(1, 68)$ = 7.61, p = .01. Neither the main effect of self (p = .72) nor the interaction between self and ease (p = .50) influenced perceived self-knowledge. Importantly, self-esteem, PA, and NA did not vary as a function of self, ease, or the interaction between self and ease (all ps > .33). Taken together, these results indicate that the manipulation was successful in influencing perceived self-knowledge without unintentionally manipulating other relevant variables.

Table 5

Descriptive Statistics by Condition for Decision Satisfaction in Study 5

Variable	M	SD	n
Easy true self	5.40	0.74	32
Difficult true self	4.98	0.60	26
Easy actual self	5.13	0.93	25
Difficult actual self	5.32	0.68	24
Easy ideal self	5.21	0.79	27
Difficult ideal self	5.47	0.60	27

$p = .96$, $\eta^2 < .001$, were not significant. However, as predicted, the interaction between self and ease was significant, $F(2, 155) = 3.55$, $p = .03$, $\eta^2 = .04$. Following the recommendations of Rosenthal et al. (2000), planned contrast analyses of the cell means were performed to compare the easy and difficult conditions within each of the self conditions (true, actual, ideal). As shown in Figure 2, participants in the easy true self condition reported greater decision satisfaction relative to participants in the difficult true self condition, $F(1, 155) = 4.72$, $p = .03$, $d = .62$. By comparison, decision satisfaction ratings did not differ between the easy and the difficult actual self conditions, $F(1, 155) = 0.76$, $p = .39$, $d = -.22$, or between the easy and difficult ideal self conditions, $F(1, 155) = 1.63$, $p = .20$, $d = -.36$.

To ensure that these results could not be explained by any of our covariates, we also conducted a follow-up analysis of covariance that included PA, $F(1, 152) = 0.70$, $p = .41$, $\eta^2 < .004$; NA, $F(1, 152) = 0.25$, $p = .62$, $\eta^2 < .001$; and self-esteem, $F(1, 152) = 15.43$, $p < .001$, $\eta^2 = .08$; the interaction remained marginally significant after controlling for these covariates, $F(2, 152) = 2.71$, $p = .07$, $\eta^2 = .03$. It is worth noting that it is perhaps unsurprising that this omnibus test of the interaction was not significant at the standard level after adding these covariates, given that we predicted that four of the six conditions would have equivalent means and that adding covariates reduces power.

The results for Study 5 provide support for the causal role of perceived true self-knowledge in decision satisfaction. Furthermore, Study 5 provided converging evidence that this effect is driven by the "trueness" of this self-concept rather than by its positivity by demonstrating that similar effects were not observed for the ideal self, another generally positive self-concept. This also suggests that the true self is not simply a version of the ideal self.

Study 6

Study 6 was designed to test the second direction of our proposed bidirectional relationship: that decision satisfaction affects the perception of true self-knowledge. To do this, we again adapted the Schwarz et al. (1991) paradigm by asking participants to reflect on a recent major life decision and then generate either a few (five) or many (15) reasons why they were satisfied with that decision. Upon completion of this task, participants rated perceived knowledge of their true, actual, and ideal self-concepts. We predicted a main effect of the decision satisfaction manipulation on perceived true self-knowledge, but not actual or ideal self-knowledge.

Method

Participants. Ninety-nine individuals (63 female) recruited from Amazon's Mechanical Turk platform participated in the study and were compensated with a payment of $.50. Participants were from the United States only, diverse in age ($M = 35.33$, $SD = 12.01$, range = 18–62), and predominantly White (77.6%) and non-Hispanic (80.8%).

Materials and procedure. Participants completed the study through an online survey after accepting the job posting on Amazon Mechanical Turk. Participants completed the measures described below, as well as several measures outside the scope of the current article.

Decision satisfaction manipulation. Participants were asked to think of "a major decision you made that has the potential for long lasting or important consequences. For example, think about the choice of your current job or career, your choice of spouse or dating partner, etc." After briefly describing the decision they were thinking of, participants were asked to list either five (easy) or 15 (difficult) reasons that they were glad they made the decision. Participants were further told "When people are satisfied with the decision they made, we find that most people are able to easily and quickly generate 5 (15) reasons that support their choice." As a manipulation check, participants were asked to indicate how easy it was to generate their list of reasons on a 7-point scale (1 = *not at all easy*; 7 = *very easy*).

Self-knowledge. Next, participants completed measures of perceived self-knowledge for their true, actual, and ideal self-concepts (all participants responded to all three self-concepts). Participants were instructed that they would be "asked to think about several different self-aspects" and were provided with a brief definition (consistent with those used in the previous studies) of each self-concept before responding to the self-knowledge questions. They were then asked "How well do you think you know your true (actual/ideal) self?" and "How easy is it for you to think of your true (actual/ideal) self?" on an 11-point scale (1 = *not at all well/easy*; 11 = *very well/easy*). Responses to these two items were highly correlated for each self (rs = .70, .70, .78, for true, actual, and ideal self, respectively) and were averaged to create
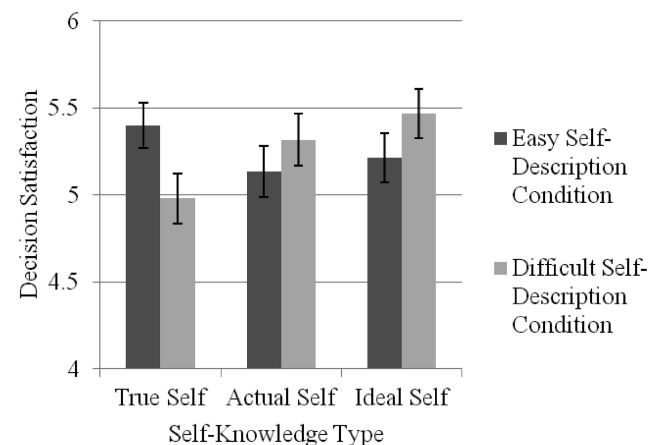

Figure 2. Decision satisfaction as a function of self-concept and ease of self-description conditions, Study 5.

composites (Ms = 8.41, 8.82, 7.84, SDs = 2.20, 1.83, 2.79, for true, actual, and ideal self, respectively).

PA, NA, and self-esteem. Finally, to maintain consistency across the studies and because the manipulation of decision satisfaction might be expected to influence mood and/or self-esteem, participants completed measures of mood and state self-esteem to serve as covariates. Participants indicated their agreement with three statements assessing PA (M = 4.04, SD = 1.14, α = .64) and three statements assessing NA (M = 1.87, SD = 1.17, α = .85) and completed Heatherton and Polivy's (1991) State Self-Esteem Scale (M = 3.62, SD = .78, α = .93).

Results

Bivariate correlations within each condition for all study variables are presented in Table 6.

As a manipulation check, an independent samples t test, $t(96)$ = 2.33, p = .02, d = .47, confirmed that participants in the easy condition found the task to be easier (M = 5.22, SD = 1.72) than participants in the difficult condition (M = 4.38, SD = 1.88).

To test our primary hypotheses, a multivariate analysis of variance was conducted to test the effect of the decision satisfaction manipulation on all three types of self-knowledge. The results revealed that the decision satisfaction manipulation affected perceived true self-knowledge, $F(1, 96)$ = 4.45, p = .04, η^2 = .04, but not perceived actual, $F(1, 96)$ = 1.52, p = .22, η^2 = .02, or ideal self-knowledge, $F(1, 96)$ = 0.10, p = .75, η^2 = .00. Consistent with predictions, and as can be seen in Figure 3, participants in the easy decision satisfaction condition reported greater true self-knowledge (M = 8.86, SD = 2.10) than their counterparts in the difficult decision satisfaction condition (M = 7.94, SD = 2.26; d = .42). We then conducted a follow-up multivariate analysis of covariance that controlled for PA, NA, and state self-esteem. After controlling for these covariates, the difference between the easy and difficult condition was somewhat reduced for perceived true self-knowledge, but remained marginally significant. Results for this analysis are reported in Table 7.

Study 6 provides experimental evidence supporting the second direction of our bidirectional hypothesis: Feelings of decision satisfaction affect perceptions of true self-knowledge. When participants felt satisfied with their decisions (via a manipulation aimed at making it easy or difficult to generate reasons for feeling satisfied), they also felt that they possessed true self-knowledge. Study 6 also provides converging evidence that this relationship is unique to the true self by including a within-subjects assessment of
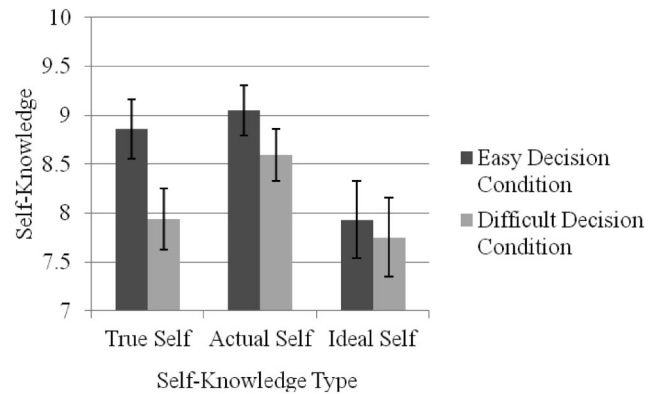

Figure 3. Perceived self-knowledge as a function of decision condition, Study 6.

three different types of self-knowledge (true, actual, ideal). Notably, the decision satisfaction manipulation only influenced perceived true self-knowledge.

General Discussion

Six methodologically diverse studies were conducted to test the possibility that perceived true self-knowledge and decision satisfaction are bidirectionally linked. We propose that this relationship is a product of a widely held true-self-as-guide lay theory of decision making. In Study 1, we found direct evidence for the prevalence of this lay theory by asking participants to rate the importance of a number of potential sources of information that one may consult when making a decision. Using the true self as a guide was rated as significantly more important than nine other potential sources of information (e.g., intuition, religion, the ideal self), confirming our hypothesis that people believe that the true self should be used as guide to decision making.

We hypothesized that, as a consequence of the ubiquity of this belief, feelings of true self-knowledge and decision satisfaction would serve as information about each other. The results of the remaining five studies were consistent with this idea and suggest that the link between these two constructs is so inexorable that the evaluation of one naturally informs the other. This pattern was

Table 6
Bivariate Correlations Among Variables in Study 6

Variable	1	2	3	4	5	6
1. True self knowledge	—	.75**	.59**	.34*	−.28	.50**
2. Actual self knowledge	.58**	—	.47**	.25	−.20	.36*
3. Ideal self knowledge	.48**	.33*	—	.36*	−.51**	.33*
4. Positive affect	.12	.32*	.26	—	−.34*	.29*
5. Negative affect	.03	−.18	.14	−.23	—	−.66**
6. Self-esteem	.45**	.51**	.19	.37**	−.36**	—

Note. Values above the diagonal represent the difficult condition; values below the diagonal represent the easy condition.
* p < .05. ** p < .01.

Table 7
MANOVA Results (With Covariates) for Study 6

Source	Outcome	F	Significance	η^2
Positive affect	True self knowledge	1.95	.17	.01
	Actual self knowledge	3.09	.08	.03
	Ideal self knowledge	5.98	.02	.06
Negative affect	True self knowledge	3.28	.07	.02
	Actual self knowledge	0.55	.46	.00
	Ideal self knowledge	0.34	.56	.00
State self-esteem	True self knowledge	24.86	.00	.19
	Actual self knowledge	13.22	.00	.11
	Ideal self knowledge	1.87	.17	.02
Ease condition	True self knowledge	3.61	.06	.03
	Actual self knowledge	0.90	.35	.01
	Ideal self knowledge	0.01	.91	.00

Note. MANOVA = multivariate analysis of variance.

evidenced for real decisions made in the past (e.g., the decision to attend a specific university) as well as for decisions about the future (e.g., hypothetical career choices).

To summarize, Studies 2 and 3 demonstrated that individual differences in perceived true self-knowledge and decision satisfaction reliably covaried, whereas individual differences in perceived actual self-knowledge and decision satisfaction were unrelated. In Study 4, we used daily diary methods to build on this finding by demonstrating that the same pattern could be observed within individuals across days. Consistent with expectations, on the days when participants perceived less true self-knowledge, they also felt relatively unsatisfied with their decisions. By contrast, perceived actual self-knowledge was again unrelated to decision satisfaction.

Studies 2–4 presented decision satisfaction as an outcome to make it easier to compare the effects of true and actual self-knowledge; however, their correlational design is consistent with both a unidirectional and a bidirectional relationship. Thus, we experimentally manipulated perceived true self-knowledge (Study 5) and decision satisfaction (Study 6) as direct tests of both sides of our bidirectional hypothesis. Consistent with expectations, these studies revealed that relatively subtle manipulations of either variable caused corresponding changes in the other. In addition to providing direct experimental evidence for both directions of the proposed relationship, Studies 5 and 6 provided further support that this relationship is exclusive to the true self by including both the actual and ideal self as comparisons (both of which were unrelated to decision satisfaction).

Taken together, the results of all six studies consistently suggested that people use feelings of true self-knowledge and decision satisfaction as indicators of each other. Thus, these studies are positioned to provide important theoretical insight into the sources of both decision satisfaction and perceived self-knowledge and are the first to suggest that these sources are transposable.

Self-Relevant Metacognition

In addition to making important theoretical contributions to our understanding of perceived self-knowledge and decision making, the current studies offer methodological insights as well. Specifically, these studies suggest that metacognitive ease of self-description can be used to examine a broader set of phenomena than has previously been explored in the literature. Although previous research has typically examined how metacognitive appraisals of ease or difficulty in thinking about specific traits or behaviors (e.g., examples of being assertive; Schwarz et al., 1991) influence evaluations directly related to those traits or behaviors (e.g., "Am I assertive?"), the current studies are among the first to examine how metacognitive appraisals of ease or difficulty in thinking about broad domains of the self (e.g., the true self) influence perceived self-knowledge more generally as well as attitudes toward indirectly related judgments (e.g., satisfaction with important life decisions; see also Schlegel et al., 2011). Thus, these studies offer a promising avenue for measuring and manipulating a variety of self-related processes that move beyond standard self-report measures.

Although this metacognitive approach provides a useful means of examining the perception of self-knowledge, it is worth noting that it cannot speak to the accuracy of this self-knowledge (e.g., Vazire & Carlson, 2010; Wilson & Dunn, 2004). That is, a person

may be confident that they know who they really are, despite the content of their self-concepts being factually inaccurate (e.g., believing you are talkative, when you are actually quiet). It would be interesting to examine how accuracy and feelings of true self-knowledge might interact to predict decision satisfaction. For example, do both the perception and accuracy of true self-knowledge exert independent influences on decision satisfaction, or is there an interaction such that perceived knowledge is a stronger predictor for people who are also accurate in their true self-knowledge? Of course, finding a way to properly operationalize true self accuracy is inherently challenging, if not impossible (Waterman, 1984). This difficulty is due to the "hidden" nature of the true self, which poses a classic criterion problem. A person may or may not express their true self (i.e., behave authentically); thus, it is unclear what criterion one would use to determine the accuracy of one's self-views.

The Role of Actual and Ideal Self-Concepts

Although the present findings implicate the role of perceived *true* self-knowledge for decision satisfaction, the results also suggest that perceived knowledge of other self-concepts may be important for other outcomes. Specifically, perceived true self-knowledge did not predict the experience of conflict (i.e., response times) during a hypothetical career choice task (Study 3), whereas perceived actual self-knowledge did. Perhaps perceived actual self-knowledge is informative to the extent that it places realistic boundaries on individuals' choices. For example, the task used in Study 3 involved hypothetical career choices between 54 different career options. Because careers vary in the types of outward behaviors they require for success, it makes sense that one's actual behavior needs to be at least somewhat congruent with the demands of a chosen career. Thus, feeling like one knows one's actual self should be important for reducing the field of potential options to a more reasonable number of choices. Perhaps people used their actual self-concepts to narrow their options, then used their true self-concepts to find the most personally satisfying choice among this narrowed set of options. Future research should examine the potential generalizability and limitations of these differential effects for both true and actual selves.

It would also be interesting to further investigate the potential role of the ideal self in decision making. Although perceived ideal self-knowledge was unrelated to decision satisfaction in the current studies, it may become important in different contexts. For example, feeling like you know who you want to be may be important to people who are searching for change (e.g., a new career). Similarly, feeling like you know who you want to be may also be important during the actual process of decision making (i.e., by limiting the number of potential options). Integrating perceived knowledge of the ideal self into a paradigm similar to that used in Study 3 could yield interesting insights.

Limitations

One limitation to the current findings is the relative homogeneity of the samples. Only two of the six studies (Studies 1 and 6) used nonstudent samples, and all of the studies relied on predominantly White participants from the United States. First, college students are likely to be in a critical time of transition and identity development (e.g., Arnett, 2000; Erikson, 1968; Kegan, 1982;

Pascarella & Terenzini, 1991). This suggests they may spend more time contemplating whether or not they know their true self, potentially making them more susceptible to the manipulations used in the current article. Second, given the cultural differences in naïve self theories (e.g., Markus & Kitayama, 1991; Nisbett, 2003; Peng & Nisbett, 1999; Spencer-Rodgers, Williams, & Peng, 2010; Triandis, 1995), it is unclear how the current research would translate cross-culturally, or even to a more diverse sample. For example, people who have more interdependent self-construals may deem other sources of decision satisfaction more important, such as how close others evaluate the decision or cultural/societal norms.

The current studies are limited to the extent that we did not assess whether the decisions the participants listed were actually congruent with the true self-concept (both at the time the decision was made and at the time of the evaluation). Can satisfying decisions that are patently incongruent with one's true self-concept still promote perceived self-knowledge? A longitudinal examination may yield interesting insights into this question. Perhaps decisions are integrated into our true self-concept to the extent that we find them satisfying, even if they felt incongruent with the true self at the time they are made (e.g., obligations or socially pressured decisions). Indeed, feelings of satisfaction may be an important source of the content of one's self-concept (e.g., "If I like doing something, I must be the kind of person who does these types of things"). Clearly, future research is needed to further elucidate these processes.

Conclusions

Carl Rogers (1961) once aptly stated, "To be what he truly is, this is the path of life which he appears to value most highly" (p. 176). Our results suggest that people agree with this basic tenet and possess a true-self-as-guide lay theory of decision making. As a result, when people feel as if they know who they are, they simultaneously feel confident and satisfied with their decisions. Even further, the experience of decision satisfaction serves as information that one is "in touch" with his or her "inner guide." The current research offers empirical evidence supporting this dynamic relationship and contributes to our understanding of the antecedents and consequences of decision satisfaction and the metacognitive feeling of knowing one's true self.

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