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Meaning in Life and the True Self: A Construal Level Theory Approach

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MEANING IN LIFE AND THE TRUE SELF: A CONSTRUAL LEVEL THEORY

APPROACH

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Experimental Psychology

By

Lydia M. Needy

May 2021

MEANING IN LIFE AND THE TRUE SELF: A CONSTRUAL LEVEL THEORY APPROACH

Psychology

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Master of Science

Lydia M. Needy

ABSTRACT

People have higher ratings of meaning in life when they feel like they know their true self. This study examines whether one's thoughts about their true self and meaning in life are consistent with a high-level construal. According to Construal Level Theory (CLT), the type of mental construal (i.e., low-level versus high-level) used depends upon how much psychological distance there is between the self and the object one is mentally representing. Objects perceived as far from the self use a high-level construal, which is more abstract, simple, and schematic. Objects perceived as close to the self use a low-level construal, which is more concrete, detailed descriptions. Research has demonstrated that the true self is thought about in abstract ways; it is believed to be derived from innate essences, and it is thought to be tied more closely to mental states. Two online studies were conducted to test the effects of construal level on meaning in life and the true self. Participants in Study 1 completed a task that primed either a high- or low-level construal and then completed a measure of meaning in life. Participants in Study 2 also completed the construal priming task followed by a writing task designed to prime and then measure either their true or actual self-knowledge. Two ANCOVAs found nonsignificant differences between construal groups on measures of meaning in life and true self-knowledge. Findings suggest that larger sample sizes and different experimental designs should be used in future research.

KEYWORDS: meaning in life, true self, Construal Level Theory, psychological distance, actual self, concretization, abstraction

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INTRODUCTION

I would dare to say there is not a person alive, and of sound mind, who has not thought about who they really are and what gives their life meaning. These existential matters have a place in discourse, research, and theory. Hence, with this study, I am adding to the existential psychology literature by hypothesizing and testing the ways in which people *think* about their true self and meaning in life. Specifically, I propose that we think about meaning in life and the true self in ways that are consistent with Construal Level Theory's (CLT) concept of psychological distance and mental construals. The type of mental construal (i.e., low-level versus high-level) used depends upon how much psychological distance there is between the self and the object one is mentally representing. Objects perceived as far from the self use a high-level construal, which is more abstract, simple, and schematic. Objects perceived as close to the self use a low-level construal, which is a more concrete, detailed description. Given the ways in which we conceptualize meaning in life and the true self, I believed we think about these concepts using a high-level construal and perceive them as being more psychologically distanced.

LITERATURE REVIEW

Meaning in Life

Most people, at some point in their life, will question what exactly gives their life meaning. This big question leads to the daunting task of operationalizing meaning in life so that it can be studied empirically. Despite the subjective nature of meaning in life, it has been suggested that meaning in life is best understood in terms of at least three facets: coherence, purpose, and significance (Heintzelman & King, 2014; Martela & Steger, 2016). People seek coherence in their life to make sense of the world and their place within it. Coherence is considered the cognitive component of meaning in life because when things make sense they are perceived as being more meaningful. Purpose refers to the guidance of future-oriented, core goals in life. In this sense, a person could have many purposes that give meaning to their life because what matters is not the quantity, or explicit content of the goals themselves, but the future-oriented direction that these goals provide for present actions. Lastly, significance is the facet addressing value judgments that contribute to meaning in life. While coherence deals with making meaningful sense of the world and purpose guides meaningful actions toward desired aims, significance is tied closely to the idea of a "life worth living" and is related to one's reasons for living. Essentially, with the facet of significance, what one cares about matters and contributes meaning to their life.

There are many sources in which people derive meaning in life: religion, specifically religiousness that provides certainty with its beliefs (Van Tongeren, Hook, & Davis, 2013); family ties (Lambert et al., 2010); social relationships and positive affect (Hicks & King, 2009; Hicks et al., 2010); our surrounding culture, and resulting worldviews (Becker, 1973); and even

something as simple as daily or weekly routines (Heintzelman & King, 2019). In addition to those sources of derived meaning, research has demonstrated that living in accord with one's true self contributes greatly to a meaningful life (Schlegel et al., 2009; Schlegel et al., 2011; Schlegel & Hicks, 2011). Specifically, people have higher ratings of meaning in life when they feel like they *know* who they are (i.e., their true self). Not only does the subjective feeling of knowing the true self contribute to meaning in life, but it also has a bidirectional relationship with decision satisfaction, which suggests that people use their true self as a guide when considering major life decisions – decisions that contribute to the meaningfulness of life (Schlegel et al., 2013). The true self is often described as an innate set of characteristics that a person believes constitutes who they really are. Contrast this with the actual self, which is described as the characteristics that one possesses which can be expressed in public or most social settings. Given the private nature of the true self, it may or may not be reflected in the everyday behavior of an individual; furthermore, people typically like their true self-concept more than their actual self-concept.

Conceptualization of the True Self

When it comes to how people think about the true self, people often take an essentialist view of the true self (i.e., that it is something derived from essences within; Christy et al., 2019; Dulaney et al., 2019) and think that it is something to be *discovered* rather than created (Bench et al., 2015, Schlegel et al., 2012; Schlegel & Hicks, 2011). This is apparent in the language people use to describe their true self. It is often the case that people say they are "finding," "discovering," or "becoming" who they are meant to be rather than "creating" who they are meant to be. This true self that people feel like they are discovering is also thought to be a private entity within the self. This is apparent in research looking at the ways in which people try to get

to know someone else's true self. Specifically, when people were asked to create questions that they would ask to determine the true self of another person, people were more likely to create questions pertaining to the unobservable mental states of a person rather than observable actions (Johnson et al., 2004). This means that people tend to attribute the true self to mental states more so than to actions.

In general, people tend to have a positivity bias towards the true self. The true self is typically thought of as being fundamentally good, especially if it aligns with what that person deems as morally good (Newman et al., 2014). When people were tasked to write about a significant change in their own self, or that of a close friend, they were more likely to attribute the change to the true self if it was a positive change rather than a negative change, and they were more likely to think a positive change was due to self-discovery (Bench et al., 2015). Interestingly, these positive beliefs about the true self have been shown to cause asymmetries in moral judgements. For instance, if the true self is viewed as fundamentally good, then people should believe that a person is happy living a morally good life; and conversely, a person with a fundamentally evil true self should be happy living a morally bad life. However, even when participants were led to believe a person's true self was fundamentally evil, they still believed there was some good within that person because they did not think a fundamentally evil person could be truly happy living a morally bad life. Hence, not only do people think their own true self is fundamentally good, they also think everyone else's true self is fundamentally good – the true self, as a general concept, is viewed positively regardless of the person in which it belongs.

The link between the subjective feeling of knowing one's true self and meaning in life is strong; however, there are still questions as to why this is the case. How is it that feeling like you know your true self is related to greater feelings of meaning in life? To answer this question, I

think it is important to consider the ways in which people *think* about, or construe, both the true self and meaning in life. For instance, Seto and Schlegel (2018) found that people think they will become more authentic (i.e., embracing and expressing the true self) over time. Specifically, they asked students at the beginning of the semester how much their past self (i.e., who they were when they graduated high school), current self (i.e., who they are right now), and future self (i.e., who they would be at the end of the semester), overlapped with their true self. Results showed that students indicated more overlap between the true self and future self compared to any other temporal self-concept. Although that study was only looking at the progression of authenticity over a short amount of time, they found the same results when considering the entire lifespan – future "chapters" of a person's life were rated as being more authentic than the current or past chapters. This raises an interesting question as to why people think authenticity follows a positive linear progression over time; and I believe this question can be partially explained by Construal Level Theory's concept of mental construals and psychological distance.

Construal Level Theory

According to Construal Level Theory (CLT), we are only able to experience the present moment as it is – here and now – so we must use mental construal processes in order to escape the present moment and to represent distanced objects among different distance dimensions (e.g., temporal, spatial, social, and hypothetical; Trope & Liberman, 2010). The type of mental construal (i.e., low-construal versus high-construal) used depends upon how much psychological distance there is between the self and the event or object one is trying to represent. Distal objects, or objects perceived as being far from the self, use high-construal levels, which are more abstract, simple, and schematic. Proximal objects, or objects perceived as being close to the self,

use low-construal levels, which are more concrete and detailed descriptions. Trope and Liberman provide the following example to differentiate between a high-level and a low-level construal:

> Moving from a concrete representation of an object to a more abstract representation involves retaining central features and omitting features that by the very act of abstraction are deemed incidental. For example, by moving from representing an object as a "cellular phone" to representing it as "a communication device," we omit information about size; moving from representing an activity as "playing ball" to representing it as "having fun," we omit the ball. Concrete representations typically lend themselves to multiple abstractions. For example, a cellular phone could be construed also as a "small object," and "playing ball" could be construed as "exercising." (Trope & Liberman, 2010, p. 441)

Another prime example is that pictures are concrete representations (i.e., a low-level construal) while words are more abstract representations being that they serve as symbols to indicate objects (i.e., a high-level construal; Amit et al., 2009).

Construal Level Theory and The Self. As CLT relates to the self, a high-level construal of the self would emphasize a more decontextualized representation of core features while a low-level construal would be more detailed and contain secondary and incidental features of the self (Wakslak et al., 2008). It has been demonstrated that distant-future self-concepts are construed on a higher level than near-future self-concepts. Specifically, when people were asked to pick descriptors that would best enable other people to get to know them in either a week (i.e., the near-future condition) or a year from now (i.e., the distant-future condition), people in the distant-future condition chose descriptors that tended to be of a higher-level construal (i.e., broader social categories). For example, a broad social category would be "female" or while a narrower category would be "female Head of the Psychology Department." Additionally, when it comes to self-complexity, it was found that the distant-future self was less complex in structure than the near-future self. This suggests that the distant-future self is conceptualized with less incidental features while maintaining core features. This research highlights the effect of construal level when one is thinking about the self.

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The research mentioned above focused on the general self-concept and self-complexity, but not explicitly the true self. I think it is worth looking into the relationship between construal level, psychological distance, and the true self. Research indicates that people use metaphors when talking about a true self (Bench et al., 2015; Schlegel et al., 2012). This strong use of metaphorical language, whether it is essential or existential in content, seems to imply that there is an element of psychological distance between the entity that is *discovering* or *creating* the true self and the entity that is *being discovered* or *created.* The way to make sense of statements such as "discover your true self" is to assume that there is some type of distance between the discoverer and the discovered. If the true self is considered to be more psychologically distanced from the self, then in theory, it would be represented with a higher-level construal. Additionally, if the true self is thought to be derived from innate essences, which research suggests that it is (Christy et al., 2019; Dulaney et al. 2019), and the true self is thought to be tied more closely to mental states (Johnson et al., 2004), then it would also make sense that the true self is represented by a higher-level construal and perceived as being distanced from the self. Hence, I think it is the case that the true self is represented by high-level construals while the actual self, being tied more to our everyday actions in social settings, is represented by low-level construals.

Construal Level Theory and Meaning in Life. Not only do I think that construal level is related to the true self, but I am arguing that construal level is related to meaning in life as well, such that high-level construals of one's true self and goals leads to a more meaningful life. It has been demonstrated in previous research that a high-level construal of a goal increased the meaningfulness of that goal. Davis and colleagues found that people who were asked to think about *why* they pursued their goal (i.e., a high-level construal), rather than *how* they pursued

their goal (i.e., a low-level construal), found the goal to be more meaningful and they had more motivation and greater feelings of self-concordance with that goal (Davis et al., 2016).

Additionally, there are cognitive processes that perceived meaning in life has an effect upon. For instance, it has been suggested that feelings of meaning in life may influence the type of information-processing we use. Heintzelman and King (2019) found that those who experienced higher levels of meaning in life were more likely to use intuition processing (i.e., a gut feeling that something is right) while those with lower levels of meaning in life were more likely to use reflexive processing. The authors propose that the difference in processing styles serve different purposes: A person who feels more meaning in their life uses intuitive processing that serves the coherence aspect of meaning in life (e.g., if it *feels* right, then it most likely makes more sense to the person), whereas a person who feels less meaning in life is more likely to reflect and use cognitive effort to construct meaning in their life. This finding supports the idea that there is a relationship between feelings of meaning in life and certain thought processes.

Present Studies. If it can be demonstrated that the true self is represented by a high-level construal, and a relationship between construal level and meaning in life is established, then I think the argument can be made that psychological distance underlies the relationship between true self-knowledge and meaning in life. Hence, it is important to see if construal level, the mechanism by which psychological distance works, affects meaning in life scores and perceived true self-knowledge. Previous research has demonstrated that when goals are discussed in a manner that is consistent with a high-level construal (i.e., *why* you are pursuing the goal rather than *how* you are pursuing the goal), they are rated as being more meaningful and enhance feelings of self-concordance with that goal (Davis et al., 2016). Given that meaning in life is partially explained by future-directed goals (i.e., having a purpose) and self-concordance (i.e.,

coherence), I am hypothesizing that a high-level construal will increase participants' ratings of life as meaningful. In brief, Study 1 will answer the following question: Does construal level affect perceived meaning in life? It is predicted that in comparing the two groups, those who experienced the high-level construal prime will have higher ratings of meaning in life while those who experienced the low-level construal prime will have lower ratings of meaning in life.

It has been demonstrated that the true self is thought about in abstract ways; it is believed to be derived from innate essences, (Christy et al., 2019; Dulaney et al. 2019), and it is thought to be tied more closely to mental states (Johnson et al., 2004). I am hypothesizing that a high-level construal will increase ratings of true self-knowledge while a low-level construal will not. Additionally, research has also demonstrated that the actual self is thought about in more concrete ways (i.e., characteristics expressed daily in public or social settings; Schlegel & Hicks, 2011). Hence, I am also hypothesizing that a low-level construal, which is more concrete, will increase ratings of actual self-knowledge while a high-level construal will not. Study 2 will answer the following question: Does construal level affect perceived true self-knowledge (i.e., feeling like you know your true self)? It is predicted that those who experience the low-level construal prime will rate the task of describing their actual self as easier (i.e., displaying greater actual self-knowledge) than those in the high-level construal prime. The actual self is who a person is in their daily life; therefore, it is tied to more concrete thinking regarding acts and behaviors of everyday life, which are consistent with low-level construals. Those in the high-level construal prime will rate the task of describing their true self as easier (i.e., displaying greater true self-knowledge) than those in the low-level construal prime. The true self is tied to who a person really believes they are, and this is accomplished through more abstract thinking, which should require a high-level construal.

METHODS

Experimental Design

I conducted two studies to answer two research questions. In Study 1, I examined how the type of construal level affects meaning in life scores. I manipulated the type of construal level used through a procedural priming technique, and I measured meaning in life scores with two different scales. In Study 2, I examined how the type of construal level affects ratings of perceived true self-knowledge. I manipulated the type of construal level used through the same procedural priming technique used in Study 1, and I used a task to both prime and then measure either true or actual self-knowledge. Both studies were conducted online and administered via Qualtrics under the same link address; however, it was set to randomly assign participants to either Study 1 or Study 2. This means that participants in each study were completely removed from the other study to which they were not assigned. The study to which they were assigned determined the tasks and questionnaires they completed, which are described in the following section. This study was approved by the Institutional Review Board at Missouri State University on November 13, 2020, under exempt review (IRB Number: IRB-FY2021-187; See Appendix).

Participants

Study 1. Thirty-five undergraduates (25 women, 10 men) enrolled in an Introductory Psychology course at Missouri State University completed the online study for course credit. In total, 36 people completed the online study; however, one participant was excluded in analyses due to missing data and not having completed the construal-level prompt. Of the 35 participants, ages ranged from 18 to 48 ($M = 21.51$, $SD = 8.06$). Thirty-three participants were domestic

students while two were international students. Most participants identified as white ($n = 25$), five identified as Asian, two identified as Black or African American, and three identified with a race or ethnicity that was not listed.

Study 2. Thirty-three undergraduates (22 women, 11 men) enrolled in an Introductory Psychology course at Missouri State University completed the online study for course credit. In total, 35 people completed the online study; however, two participants were excluded from analyses due to missing data and not having completed the construal-level prompt. Of the 33 participants, ages ranged from 18 to 30 ($M = 19.42$, $SD = 2.46$). Thirty-one participants were domestic students while two were international students. Most participants identified as white ($n = 29$), two identified as Asian, and two identified as Black or African American.

Materials

Why-How Task. The Why-How Task is one of two ways in which a construal-level can be directly induced. In this task, the participant is asked to write about either why or how they participate in an activity. Previous research has demonstrated that when people are asked *why* they participate in an activity it activates high-level construals; however, when people are asked *how* they participate in an activity it activates low-level construals (Baetens et al., 2014; Davis et al., 2016; Fujita et al., 2011; Gilead et al., 2014; Stillman et al., 2017). Asking someone why they participate in an activity focuses more on the purpose behind the act while asking someone how they participate in an activity focuses more on the specific, concrete actions behind the activity.

In both studies, the participants were randomly assigned to either the high-level (i.e., why) or low-level (i.e., how) construal condition in which they were specifically asked to complete the following prompt:

Please think and write about *why* [*how*] you pursue your academic goals. Please feel free to give as many details as possible.

I decided to use the activity of pursuing academic goals because it was applicable to the research participant pool I would be using. Additionally, this specific activity has been used in previous research (Davis et al., 2016). Once the participants completed the writing task, they were asked to rate the ease of the task on a 9-point Likert scale with "Extremely difficult" and "Extremely easy" as anchors. This measure of ease was necessary in order to account for differences in subjective task ease during analyses.

True/Actual Self Description Task. This task, developed by Schlegel and colleagues (2011), provides a measure of true self-knowledge (or actual self-knowledge) via ease of accessibility. Participants are asked to list a specified number of descriptors for either their true self or actual self. Once they have listed their descriptors, they are then asked to rate two items (e.g., "How easy [difficult] did you find this writing task to be?") on the subjective ease they had in listing a specified number of descriptors for either their true or actual self. The items are on a 9-point Likert scale with "Extremely difficult" and "Extremely easy" as anchors. The averages of these two items will serve as the measure of true (or actual) self-knowledge. A person who rates the task as being easier would be displaying greater cognitive accessibility of their true (or actual) self (Schlegel et al., 2009).

In Study 2, participants were randomly assigned to either the true or actual self condition in which they were specifically asked to complete the following prompt:

Your *true [actual] self* is who you believe you really are [who you are in your daily life]. Specifically, we'd like you to think about the characteristics, roles or attributes that define who you really are [who you are in your daily life] —even if those characteristics are different than how you sometimes act in your daily life [are different than who you really are].

The words people use to describe different parts of themselves are of interest to us. Please list the 10 best words that describe your *true [actual] self*.

Once the participant completed this prompt, they were then asked to rate two items regarding the level of ease (or difficulty) they experienced with the description task.

Meaning in Life Questionnaire. The Meaning in Life Questionnaire (MLQ) measures meaning in life based on the researchers' definition of meaning in life "as the sense made of, and significance felt regarding, the nature of one's being and existence" (Steger et al., 2006). The questionnaire consists of two, five-item scales, Presence and Search, rated on a seven-point Likert scale (i.e., 1 = "Strongly disagree" while 7 = "Strongly agree"). The Presence scale measures the existence of meaning in life at that moment. Hence, a couple examples of the Presence scale items are as follows: "I understand my life's meaning" and "My life has a clear sense of purpose." The Search scale measures one's pursuit of meaning in life, which uses items such as "I am looking for something that makes my life meaningful" and "I am seeking a purpose or mission for my life."

Scale items load more highly on their intended factor than the other factor (.70 – .84 compared to -.10 – .13) and internal consistency for both scales is adequate (α = .86 – .88; Steger et al., 2006). Evidence for convergent validity has been established through significant positive correlations with life satisfaction, positive emotions, intrinsic religiosity, extraversion, and agreeableness. Additionally, the MLQ is significantly negatively correlated with depression, negative emotions, and neuroticism. In terms of discriminant validity, the MLQ is not correlated with social desirability or extrinsic religiosity (when separated from spiritual meaning). The Presence scale of the MLQ is commonly used in research looking at the relationship between the true self and meaning in life (Schlegel et al., 2009; Schlegel et al., 2011; Schlegel & Hicks, 2011).

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener, 1985) is a commonly used measure of global life satisfaction (as opposed to domain-specific satisfaction; Kaplan & Saccuzzo, 2017). Life satisfaction tends to be the cognitive component of subjective well-being and it requires self-evaluation of one's own life (Pavot & Diener, 2009). This scale has been tested with numerous diverse populations (e.g., cancer patients, college students, minority groups, prisoners, older adults, caregivers, and psychotherapy clients) and translated into several different languages while maintaining strong reliability and validity evidence. It consists of five items (e.g., "If I could live my life over, I would change almost nothing" and "I am satisfied with my life") rated on a seven-point Likert scale (i.e., 1 = "Strongly disagree" while 7 = "Strongly agree"). The scale demonstrates good internal consistency ($\alpha = .87$) and an acceptable two-month test-retest reliability ($r = .82$; Kaplan & Saccuzzo, 2017, Pavot & Diener, 2009).

Factor analysis of the five items indicates there is a single factor accounting for 66% of the scale variance. In terms of validity evidence, the SWLS is negatively correlated with measures of distress (i.e., depression, anxiety, and negative affect). Specifically, there is a strong negative correlation between life satisfaction (as measured by the SWLS) and depression (measured by the Beck Depression Inventory; $r = -0.72$, $p = 0.001$). Additionally, the SWLS is positively correlated with measures of healthy psychological functioning and positive affect. It is fair to say that a person who is satisfied with their life would also rate their life as being meaningful; hence, this measure was used as another way to assess meaning in life in this study.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSES) is a frequently used measure of global feelings of self-worth. It consists of 10 items that are typically rated on a four-point Likert scale (i.e., ratings range from strongly agree to strongly disagree; Rosenberg,

1965). The scale demonstrates strong psychometric properties; the internal reliability is .92, and the test-retest reliability over a two-week period is good ($r = .85$ and $r = .88$; Kaplan & Saccuzzo, 2017). Factor analyses of the 10 RSES items indicate that there is a single general factor, and there are a wide range of criterion variables (e.g., self-evaluative biases, global self-evaluation, depression, etc.) that the RSES correlates with well establishing evidence for its validity (Robin et al., 2001). Previous research has demonstrated that self-esteem is closely related with measures of meaning in life and the true self (Schlegel & Hicks, 2011; Schlegel et al., 2009; Schlegel et al., 2011); hence, it was necessary to measure self-esteem to control for its effects in analyses.

Positive Affect Scale. The Positive Affect Measure is used to obtain a participant's current level of positive affect for that day. It consists of three items tailored to mood ("how was your mood today"), happiness with the day ("how happy did you feel today," and satisfaction ("how satisfied do you feel about this day") rated on a 10-point Likert scale (i.e., 1 = "absolutely not satisfied" while 10 = "absolutely satisfied"). The internal consistency of this measure is good ($\alpha = .92$; de Bloom et al., 2014). Previous research has demonstrated that positive affect is closely related with measures of meaning in life and the true self (Schlegel & Hicks, 2011; Schlegel et al., 2009; Schlegel et al., 2011); hence, it was necessary to measure positive affect to control for its effects in analyses.

Procedure

Study 1. Participants signed up for the study in Sona and received a Qualtrics link that took them directly to the study. The participant then read through the consent form, and they gave their consent to participate by choosing to agree to the study. If assigned to Study 1 by

Qualtrics, the participant would first complete the construal-level manipulation. I manipulated construal level by using the Why/How manipulation, which is one of two commonly used manipulations in CLT research (see "Measures" for more information on the Why/How manipulation; Davis et al., 2016; Gilead et al., 2014; Trope & Liberman, 2010). Specifically, for this priming procedure, I randomly assigned participants to one of two writing tasks. I asked them to either write about *why* they pursue their academic goals or *how* they pursue their academic goals. Once the task was completed, the participant was asked to rate the subjective ease of the task. This item was on a 9-point scale with "Extremely difficult" and "Extremely easy" as anchors.

I then asked participants to complete the Meaning in Life Questionnaire (MLQ; Steger et al., 2006), the Satisfaction with Life Scale (SWLS; Diener, 1985), the Positive Affect Measure (de Bloom et al., 2014), and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Once all the questionnaires were filled out, the participant was debriefed by a custom end of survey message.

Study 2. Participants signed up for the study in Sona and received a Qualtrics link that took them directly to the study. The participant was then asked to read through the consent form, and they gave their consent to participate by choosing to agree to the study. If assigned to Study 2 by Qualtrics, the participant first completed the construal-level manipulation. This construal-level manipulation was the same one used in Study 1. That is, I randomly assigned participants to either the high-level or low-level construal condition.

Perceived true self-knowledge, and the comparison condition of actual self-knowledge, was measured via the ease of accessibility. This measure was developed by Schlegel et al. (2011) and it asks the participant to rate two items on the subjective ease one has in listing a specified number of descriptors for either their true or actual self. In this study, I randomly assigned

participants to list ten descriptors of either their true or actual self. They were then asked to rate both the subjective ease and difficulty of that task. The two items are on a 9-point scale with "Extremely difficult" and "Extremely easy" as anchors. The averages of these two items served as the measure of true or actual self-knowledge. The thought is that those who rate the task easier have greater accessibility to the concept they described.

Study 1

Preliminary Analyses. One participant was excluded in analyses due to missing data and not having completed the construal-level prompt. Consistent with literature in this area, I analyzed the time duration (in seconds) using a Mann-Whitney independent samples t-test and found a nonsignificant difference between construal-level groups, $t = 176.500$, $p = .386$. I used a Mann-Whitney t-test because my data for the low-level construal group did not meet normality assumptions (Shapiro-Wilk $p < .001$). Although it was a nonsignificant difference, participants in the high-level construal condition spent less time completing the survey than those in the low-level construal condition ($M = 280.93$, $SD = 79.80$ for high-level construal; $M = 392.50$, $SD = 273.22$ for low-level construal). I did not exclude participants based upon the length of their duration. This decision not to exclude was based upon the already small sample size and the fact that I was already controlling for the subjective rate of ease of the writing task. There was not a significant difference between groups in the subjective ease of the construal writing task [$t(33) = 0.58$, $p = 0.569$, $d = .57$; $M = 2.65$, $SD = 1.53$ for low-level construal condition; $M = 2.33$, $SD = 1.72$ for high-level construal condition].

Consistent with previous research (Schlegel et al., 2011), a meaning in life variable was created by summing the participants' scores on the MLQ Presence scale and the SWLS. The two variables were positively correlated ($r = .55$, $p < .001$) and both scales showed strong internal reliability on their own ($\alpha = .87$ for MLQ Presence; $\alpha = .86$ for the SWLS). This composite variable met the necessary assumption of normality (Shapiro-Wilk $p = .114$).

Previous research has found that positive affect and self-esteem are predictors of meaning in life (Schlegel et al., 2009; Schlegel et al., 2011); hence, they needed to be considered. Measures of both positive affect and self-esteem showed strong internal reliability ($\alpha = .90$ for positive affect; $\alpha = .94$ for self-esteem). As expected, positive affect and self-esteem were positively correlated with the composite meaning in life variable ($r = .76$, $p < .001$ for positive affect; $r = .82$, $p < .001$ for self-esteem). The proposed covariates of positive affect and self-esteem were strongly correlated ($r = .74$, $p < .001$), which means there was an issue of multicollinearity. Given the strong correlation ($r > .70$), positive affect was removed because it would be considered statistically redundant.

Primary Analyses. I used an ANCOVA to test the effect of construal level (i.e., high-level vs. low-level priming tasks) on meaning in life while accounting for the variables of task ease and self-esteem. Assumptions of homogeneity (Levene's test $p > .05$) and normality were met. The analysis revealed that there was a nonsignificant difference in meaning in life scores between participants in the low-level and high-level construal conditions [$F(1,31) = 0.41$, $p = .494$, $\eta_p^2 = .02$]. Marginal means indicate that the high-level construal group rated their meaning in life as slightly higher than those in the low-level construal group ($M = 47.60$, $SE = 1.70$ for low-level construal; $M = 49.41$, $SE = 1.97$ for high-level construal; See Figure 1); however, this is a miniscule difference and should not be taken as evidence for a reliable difference between conditions.

Study 2

Preliminary Analyses. Two participants were excluded in analyses due to missing data and not having completed the construal-level prompt. Consistent with literature in this area, I analyzed the time duration (in seconds) using a Student independent samples t-test and found a

nonsignificant difference between construal-level groups, $t(31) = 0.43$, $p = .671$, $d = .15$. I then

analyzed the time duration between the true and actual self-knowledge groups using a Welch

independent samples t-test and found a nonsignificant difference, $t(17) = 1.40$, $p = .180$, $d = .47$.

I used a Welch independent samples t-test because the assumptions of both normality and

equality of variances were not met (Shapiro-Wilk < .001; Levene's = .008). I did not exclude

participants based upon the length of their duration. This decision not to exclude was based upon

the already small sample size and the fact that the subjective ease of both tasks was accounted

for in analyses. There was not a significant difference between groups in the subjective ease of

the construal writing task [$t(31) = -0.14$, $p = 0.889$, $d = -0.05$; $M = 3.19$, $SD = 2.37$ for low-level

construal condition; $M = 3.29$, $SD = 1.96$ for high-level construal condition].
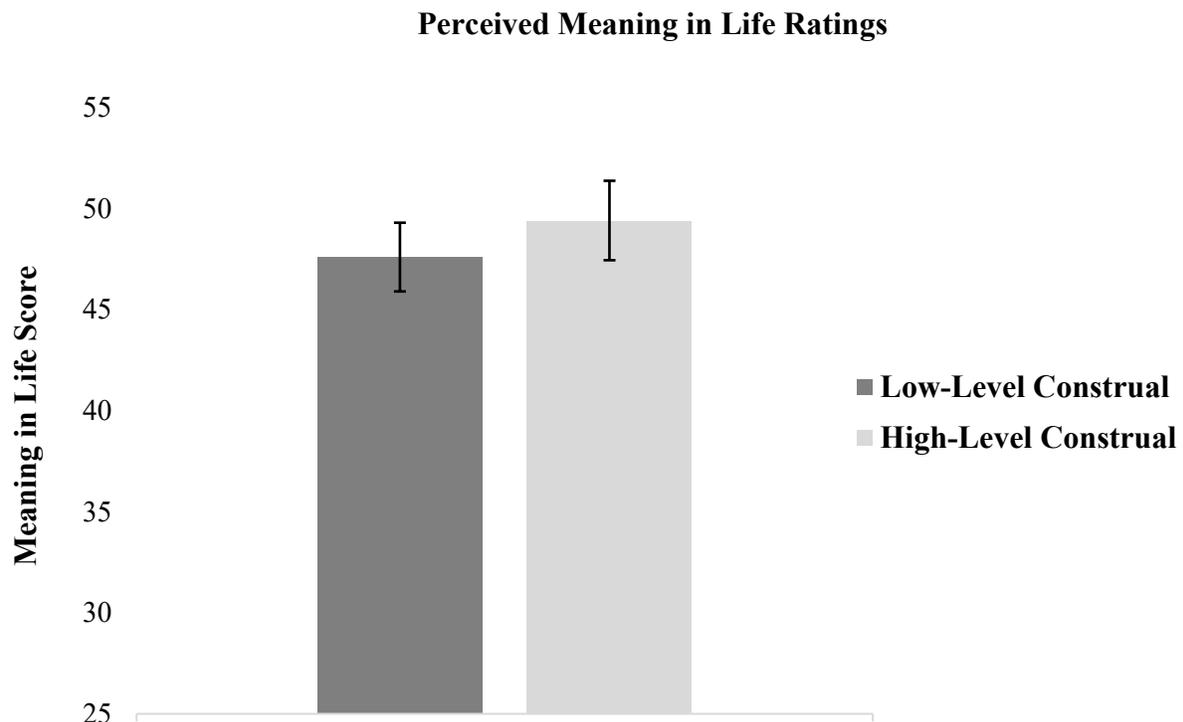
Perceived Meaning in Life Ratings

Figure 1. Ratings of meaning in life after completing either a after completing either a high-level
or low-level construal priming task. Error bars represent ± 1 standard error of the mean.

Consistent with previous research (Schlegel et al., 2011), a variable of true and actual self-knowledge was created by averaging each participant's two-items rating the subjective ease and difficulty of the descriptor task. This variable will be called "self-knowledge accessibility" and is referring to both groups unless otherwise specified. While accounting for self condition, Pearson's partial correlations revealed that the two items (i.e., subjective rating of ease and difficulty) were positively correlated to each other ($r = .77$, $p < .001$). Additionally, both items positively correlated with self-knowledge accessibility ($r = .95$, $p < .001$ for the rate of difficulty; $r = .92$, $p < .001$ for the rate of ease). This variable met the necessary assumption of normality (Shapiro-Wilk $p = .064$).

Previous research has found that positive affect and self-esteem are predictors of meaning in life (Schlegel et al., 2009; Schlegel et al., 2011). Considering that meaning in life and perceived true self-knowledge are strongly related, these factors needed to be accounted for due to the possibly of their confounding effect. Measures of both positive affect and self-esteem showed strong internal reliability ($\alpha = .87$ for positive affect; $\alpha = .93$ for self-esteem). When accounting for the self condition, Pearson's partial correlations revealed there was a moderate negative correlation between positive affect and self-knowledge accessibility ($r = -.40$, $p = .025$) and a weak, nonsignificant correlation between self-esteem and self-knowledge accessibility ($r = -.26$, $p = .147$). There was not an issue with multicollinearity between positive affect and self-esteem ($r = .63$), so both were used as covariates in the ANCOVA.

Primary Analyses. I used a 2 (construal: high-level vs. low-level construal) x 2 (self: true self vs. actual self) ANCOVA to test the effect of construal level and self condition on self-knowledge accessibility while accounting for the variables of construal-level task ease, positive affect, and self-esteem (See Table 1 for sample size per cell). Assumptions of homogeneity

(Levene's test $p > .05$) and normality were met. The analysis revealed that there was a

nonsignificant interaction between construal level and self condition on self-knowledge

accessibility [$F(1,26) = 0.53$, $p = .472$, $\eta_p^2 = .02$]. There were no significant main effects ($p >$

.05). Although this was a nonsignificant finding, marginal means indicate that true self-

knowledge accessibility was greater after the high-level construal prime than the low-level

construal prime ($M = 5.28$, $SE = .75$ for high-level construal; $M = 4.88$, $SE = .77$ for low-level

construal). Additionally, actual self-knowledge accessibility was greater after the low-level

construal prime than the high-level construal prime ($M = 5.84$, $SE = .80$ for low-level construal;

$M = 5.03$, $SE = .64$ for high-level construal; See Figure 2). The slight differences in marginal

means should not be taken as evidence for any real, statistical difference considering the large

standard errors.

Table 1. Sample size per cell for Study 2's 2 x 2 ANCOVA.

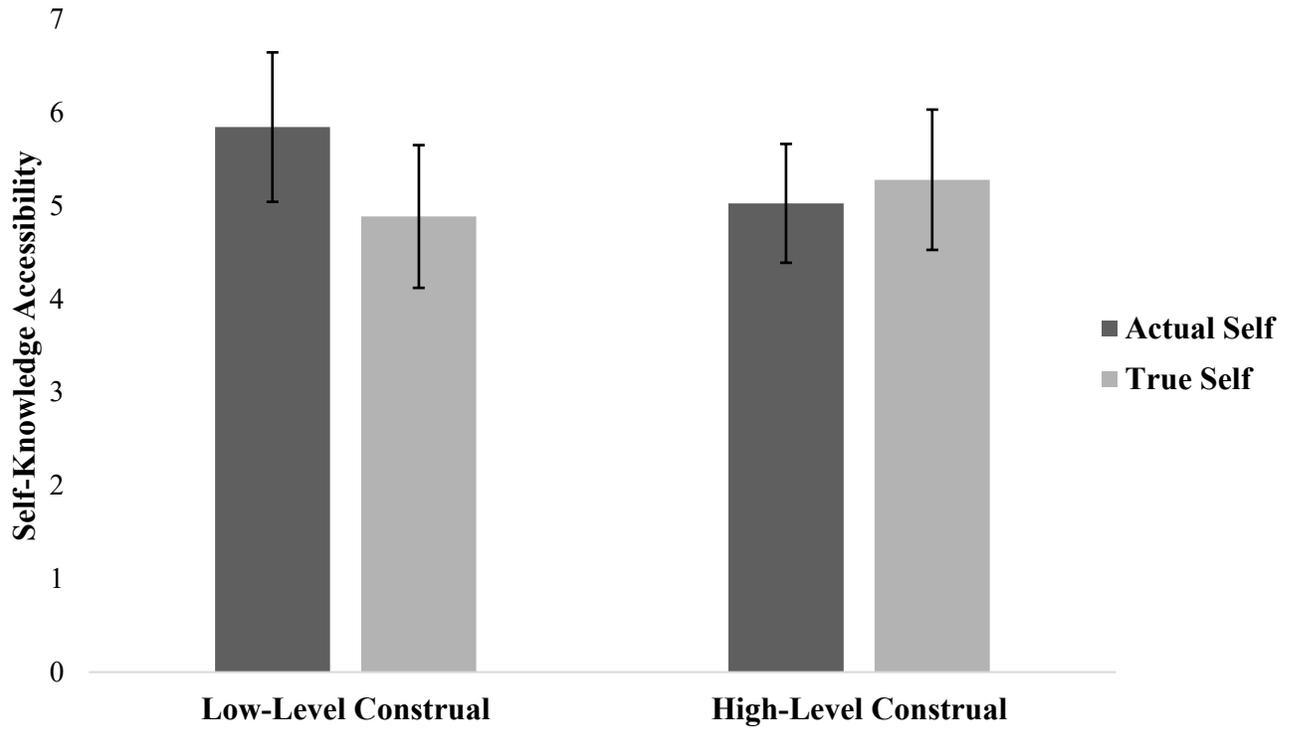| Construal Level	Self Condition	N
Low	Actual	8
High	Actual	10
Low	True	8
High	True	7
Total		33

Perceived Self-Knowledge Ratings

Figure 2. Ratings of either true or actual self-knowledge accessibility after completing either a high-level or low-level construal priming task. Error bars represent ± 1 standard error of the mean.

DISCUSSION

Summary

Study 1. Study 1 attempted to answer whether construal-level impacted one's rating of meaning in life. Previous research has demonstrated that when goals are discussed consistent with a high-level construal (i.e., *why* you are pursuing the goal rather than *how* you are pursuing the goal), they are rated as being more meaningful and enhance feelings of self-concordance with that goal (Davis et al., 2016). Given that meaning in life is partially explained by future-directed goals (i.e., having a purpose) and self-concordance (i.e., coherence), it was hypothesized that a high-level construal would increase participants' ratings of life as meaningful. An ANCOVA, controlling for self-esteem and task ease, revealed that there was not a significant difference in ratings of meaning in life based on construal-level. This means that my findings do not support the hypothesis – it appears as though people rate meaning in life similarly despite the construal-level used in this study (See Figure 1).

Study 2. Study 2 attempted to answer whether construal-level impacted ratings of true self-knowledge. Research has demonstrated that the true self is thought about in abstract ways; it is believed to be derived from innate essences, (Christy et al., 2019; Dulaney et al. 2019), and it is thought to be tied more closely to mental states (Johnson et al., 2004). Thus, it was hypothesized that a high-level construal would increase ratings of true self-knowledge while a low-level construal would not. Research has also demonstrated that the actual self is thought about in more concrete ways (i.e., characteristics expressed daily in public or social settings; Schlegel & Hicks, 2011). Hence, it was also hypothesized that a low-level construal, which is more concrete, would increase ratings of actual self-knowledge while a high-level construal

would not. A 2 (high-level vs. low-level construal) x 2 (true self vs. actual self) ANCOVA, controlling for positive affect, self-esteem, and task ease, revealed that there was not a significant difference in ratings of self-knowledge based upon construal level or self-knowledge condition. Marginal means suggest that self-knowledge scores were consistent with the hypotheses (See Figure 2); however, this is not evidence supporting the hypotheses.

General Summary. Construal Level Theory's concept of psychological distance posits that objects perceived as being far from the self are mentally construed with high-level construals while objects perceived as being near the self are mentally construed with low-level construals. Previous research suggests that both meaning in life and the true self are thought about in abstract ways and could align with a high-level construal. Hence, it was hypothesized that those participants primed with a high-level construal would rate meaning in life and true self-knowledge higher than those primed with a low-level construal. Although both studies had nonsignificant findings and do not support the hypotheses, their marginal means suggest that these hypotheses would be worth exploring further with larger sample sizes and in different experimental designs.

Limitations and Future Directions

The greatest limitation, for both Study 1 and Study 2, is that neither study had adequate statistical power due to their small sample sizes. Neither study had more than 35 participants, and the power analysis revealed that I needed 128 participants per study, or 256 participants total. To achieve this high of a sample size, I needed to have had my study available to students much longer than one semester. Additionally, this low sample size could be the result of having been an online study during an abnormal academic year. There are concerns that some

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participants did not take the writing prompts seriously – some participants did not attempt the writing prompts at all and were excluded from analyses. Additionally, participants' writing prompts should have been evaluated across several raters on their quality and goodness of fit to the specific writing prompt; however, that did not happen. It would have required qualitative assessment that was beyond the scope of this study.

Another limitation is the lack of control groups in either study. This would call into question the results if they were significant; however, regardless of significance, this is still worth noting. The control groups would be necessary in order to determine if it was construal-level alone, and not just the act of writing, that caused for a difference in meaning in life scores and self-knowledge accessibility between groups. Adding a control group to each study would have increased the number of participants needed for adequate statistical power. I chose not to include control groups because I knew there was already going to be an issue gathering enough data for the studies as they were. Future research in this area should use control groups and consider ways in which to increase sample size so that there is adequate statistical power. Furthermore, it would be worth evaluating the quality of written responses given that much of the research in this area rests on the use of priming effects and they are only as good as the effort the participants put forth.

Some might think that my use of an ANCOVA, or factorial ANCOVA, with more than one covariate was improper and that perhaps a dummy-coded multiple linear regression (MLR) would have been more appropriate. I would agree that on the surface it appears odd; however, the use of an ANCOVA was better suited for my purposes – it uses a regression to determine if my covariates predict my dependent variable while also running an ANOVA to test for differences of residuals among the groups. Hence, the ANCOVA was providing the same

information as a dummy-coded MLR, while also allowing for the use of causal language in statistical interpretations, which a MLR does not allow. Furthermore, I tested the data of both studies in dummy-coded MLRs and reached the same statistical results of nonsignificant findings.

This study was simply examining the underlying construal mechanisms by which psychological distance works so that it could first be established that the true self and meaning in life are consistent with high-level construals. Once this connection is well-established, then it would be worth exploring the direct role of psychological distance in how people construe the true self and meaning in life. Specifically, it would be interesting to see if distance from the true self exists, and if so, on what level (i.e., spatial, temporal, hypothetically, or socially).

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Human Subjects IRB Approval

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Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt

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