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A NOVEL APPROACH FOR MEASURING SELF-AFFIRMATION

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ABSTRACT

Psychological priming could benefit from more parsimonious manipulation checks that apply to a variety of priming methods. The present study applies the framework of Affect Control Theory-Self to measure changes in self-evaluation, potency, and activity from self-affirmation and self-uncertainty primes. The results demonstrate that self-evaluation significantly captures self-sentiment change between self-affirmation and self-uncertainty whereas the traditional self-integrity scale did not. Self-sentiment measures offer an alternative for capturing the effects of psychological priming and their intersection generates avenues for future research.

INTRODUCTION

Self-Affirmation Priming

Self-affirmation posits that individuals are motivated to maintain their sense of self-integrity (Cohen & Sherman 2014) to cope with the stresses of their environment. Experiments that increase feelings of self-integrity through self-affirmation primes have been shown to increase openness to threatening information. This includes a wide range of information from being more open to health messaging (Sweeney & Moyer 2015) to opposing political viewpoints (Binning et al 2010). However, despite consistent evidence for its impact on cognition and behavior (McQueen and Klein 2006), there lacks a "common currency" that accounts for understanding of the mechanism behind the self-affirmation and how its impact relates to other types of psychological primes (McGregor 2006).

Researchers have argued a variety of concepts can explain the self-affirmation process including self-integrity (Sherman and Cohen 2006), self-clarity (Boucher, Bloch, and Pelletier 2016), morality salience (Heine, Proulx and Vohs, 2006), meaning (Fritsche et al., 2008), or self-transcendence (Crocker, Niiya, and Mischkowski 2009). Additionally, the variety of theoretical frameworks applied to self-affirmation have created many different types of manipulation checks (McQueen & Klein 2006; Napper, Harris, & Epton 2009; Sherman et al 2009). The abundance of new scales add conceptual confusion and longer scales for self-affirmation manipulation checks may even add unwanted noise (McQueen & Klein 2006; Schwinghammer, Stapel, & Blanton 2006). I argue that using a more parsimonious scale from Affect Control Theory (ACT) that measures the self-concept into three well-studied dimensions of meaning (Osgood 1962) would be beneficial for studying self-affirmation.

Affect Control Theory of Self

According to ACT, individuals have a motivation to maintain consistency between cultural meanings and social situations (Heise 2007). These social situations are broken down into smaller components (actors, behaviors, and objects), which are measured on evaluation, potency, and activity through semantic differential scales. Evaluation, potency, and activity have also been found as central components for describing constructs across cultures (Osgood 1962). When an individual experiences a discrepancy between their social situation and their cultural expectations, this is called *deflection.* Because the social components each have a numerical rating, the difference between one's cultural expectations and their current situation can be quantified. For example, "mother" may have a very positive evaluation rating. If we hear about a mother hurting a child (a negatively rated behavior), then this would cause deflection. Individuals are motivated to avoid deflection and can do so by reframing different components of the situation (Nelson 2006). In our "mother hurts child" example, we may reframe the situation in our mind to "monster hurts child" to reduce deflection because a "monster" hurting a child is more consistent with our cultural expectations.

Affect Control Theory of Self (ACT-Self) extends from ACT and provides a framework for understanding how different self-evaluations impact behavior. ACT-Self measures this process through the interaction of fundamental and transient self-sentiments (MacKinnon 2015). An individual's overall and static view of themselves is called the fundamental self-sentiment. The current state the individual is viewing themselves is the transient self-sentiment. These self-sentiments are measured on the dimensions of evaluation, potency, and activity, just like ACT uses the same dimensions to measure social events. For measuring the self, the evaluation dimension refers to how worthy or unworthy an individual considers themselves. The potency dimension captures one's perception of self-competence and activity measures feelings of overall liveliness. These self-sentiment measures can also predict an individual's report of their emotions and identities (Boyle 2017).

ACT-Self posits that individuals have a motivation to maintain consistency between how they rate themselves in their fundamental sentiments and how they are currently feeling through their transient sentiments (Heise and MacKinnon 2010). When an individual behaves in a manner that is inconsistent with how they typically view themselves (generating a mismatch between their fundamental and transient sentiments), they experience *inauthenticity* (Heise and MacKinnon 2010; MacKinnon 2015). For example, if someone considers themselves to be a good and competent person, then making a mistake could generate negative feelings, creating the experience of inauthenticity. Deflection in the broader ACT operates similarly to inauthenticity in ACT-Self. Individuals resolve inauthenticity by engaging in a behavior that is consistent with their fundamental sentiments. Importantly, any deviation from fundamental sentiments (positive or negative) can create inauthenticity. On a methodological level, ACT-Self measures self-sentiments through semantic differential scales which reduces ambiguity and conceptual confusion found in more traditional self-esteem scales (MacKinnon 2015). Thus, the measures used in ACT-Self may offer utility for measuring the impact of psychological priming as well.

Psychological primes that impact the self would create inauthenticity due to a mismatch between transient self-sentiments and fundamental self-sentiments. People perceive themselves to be

moderately good, potent, and active (MacKinnon 2015). Self-affirmation involves reflecting on one's positive qualities and competence through their behavior (Cohen & Sherman 2014). Focusing on one's positive qualities through a self-affirmation prime could make a person feel overly good, potent, and active compared to their self-sentiment baseline (thereby creating inauthenticity). Using the measures involved in the ACT-Self framework could capture self-sentiment change in a way that is more parsimonious and more generally applicable than specific priming manipulation checks.

The Present Study

The present study applies ACT-Self to measure self-sentiment change from self-affirmation primes. In addition to contrasting self-affirmation and a control condition, I also added a self-uncertainty condition. Research has shown that self-affirmation and self-uncertainty have been found to cancel each other's effects when primed in succession (McGregor 2006). Additionally, priming individuals to feel uncertain about themselves makes them less open to new information (McGregor et al 2001; Sherman, Hogg, and Maitner 2009), which also suggests self-affirmation and self-uncertainty could operate on a compensatory mechanism (McGregor 2006). Common methods to prime both self-affirmation and self-uncertainty involve recall tasks. Priming self-affirmation can be achieved when the individual reflects on a value they deem personally important. Priming self-uncertainty can be achieved when the individual reflects on a time they felt uncertain in their lives. A self-affirmation prime could make a person feel overly good, potent, and active compared to their baseline, but a self-uncertainty prime may cause the inverse effect because uncertainty is often a negative, powerless, and inactive state. Feelings towards oneself can be inflated or deflated depending on the priming method used.

The framework of ACT-Self allows for measuring the effects of self-affirmation through three simple and well-defined measures of meaning (evaluation, potency, and activity). Additionally, it would allow changes of various primes (such as self-uncertainty and self-affirmation) to all be captured on the same self-sentiment measurements. Applying the ACT-Self framework to psychological primes adds parsimony and creates a "common currency" to capture self-sentiment change. Thus, the present study predicts that self-affirmation primes should elevate one's transient self-sentiments and self-uncertainty should decrease one's transient self-sentiments.

Self-affirmation Higher Evaluation Hypothesis: Self-affirmation prime will yield higher self-sentiments on evaluation compared to self-uncertainty prime

Self-affirmation Higher Potency Hypothesis: Self-affirmation prime will yield higher self-sentiments on potency compared to self-uncertainty prime

Self-affirmation Higher Activity Hypothesis: Self-affirmation prime will yield higher self-sentiments on activity compared to self-uncertainty prime

METHODS

Subjects

Participants were recruited from *Prolific*, which is an online platform of research participants who complete studies in exchange for monetary rewards (Palan and Schitter 2018). Participants were randomly assigned into a self-affirmation, self-uncertainty, or control condition. One hundred participants were recruited for each condition for a total of 300 participants. Participants were dropped from the study if they did not complete the prime accurately or did not appear to take the study seriously. This resulted in dropping five participants from the control group, one from the self-affirmation group, and five from the self-uncertainty group. The overall sample was 53.97% female, 82.69% white, had a mean age of 35.67 (SD =13.46), and 56.05% had a college degree or higher.

Procedure

After participants consented to complete the study, they were given an essay box to complete the prime depending on the condition they were randomly assigned into. The self-affirmation prime asked participants to pick a value that was important to them and then write three reasons why it was important to them and provide an example illustrating its importance (Sherman et al 2009). The control condition was a common control prime in self-affirmation studies (McQueen & Klein 2006) where participants picked a value that was least important to them and wrote about how someone else may find it important. Those in the self-uncertainty prime wrote about a time when they felt about themselves and their future (McGregor 2001). Each condition required participants to write at least 100 characters to try and ensure participants had some reflection during their prime. After completing the prime, participants then answered the eight item self-integrity scale (see Appendix A), which has been used as a manipulation check for self-affirmation primes (Sherman et al 2009). After answering the self-integrity scale, participants then rated themselves on "myself as I currently feel" on evaluation, potency, and activity to capture transient self-sentiments (see Appendix B). This new measure was inspired by the ACT-Self, which asks participants to rate "myself as I really am" on evaluation, potency, and activity. Finally, participants answered basic demographics questions (age, race, sex, and education) and were debriefed once the study ended.

RESULTS

Table 1. Means and standard deviations for evaluation, potency, activity, and self-integrity across conditions.

Self-sentiment (or scale)	Self-uncertainty condition	Control condition	Self-affirmation condition
Self-evaluation	1.26 (1.68)	1.41 (1.64)	1.82 (1.52)
Self-potency	0.40 (1.69)	0.44 (1.75)	0.48 (1.70)
Self-activity	-0.10 (1.63)	0.26 (1.69)	0.30 (1.61)
Self-integrity scale mean	5.49 (0.945)	5.58 (0.964)	5.67 (0.856)

Note: Self-integrity scale measure ranged from 1 (strongly disagree) to 7 (strongly agree) and self-sentiment scales ranged from -4 to 4.

Table 1 shows the means and standard deviations for the three sentiments (evaluation, potency, and activity) and self-integrity scale across the three conditions. I ran a series of ANOVAs to

evaluate whether the three conditions produced significantly different effects on how participants currently felt about themselves (as measured by evaluation, potency, and activity).

Table 2. Mean differences on evaluation between the three priming conditions

Priming Condition	Control	Self-Affirmation
Self-Affirmation	0.41 0.235	
Self-Uncertainty	-0.15 1.000	-0.56 0.049*

Note: Top number in cell equals the row mean subtracted from column mean and the bottom number is the p value after the Bonferroni test. * = p < .05

For self-evaluation, an ANOVA revealed a significant difference between the three conditions (F= 2,286) 3.14; p = .045). The Bonferroni post-hoc test found that the self-evaluation ratings were significantly higher in the self-affirmation condition compared to the self-uncertainty condition (see Table 2). The control group was in the middle of these two means, but was not significantly different from either prime. This result provides support for the *Self-affirmation Higher Evaluation Hypothesis.* ANOVAs did not find significant differences between conditions for potency (p = .94) or activity (p = .16). Thus, neither the *Self-affirmation Higher Potency* nor the *Self-affirmation Higher Activity Hypothesis* were supported.

Table 3. Pearson's correlation among self-sentiments and self-integrity scale.

	Evaluation	**Potency**	**Activity**	**Self-Integrity**
Evaluation	1.000			
Potency	0.597**	1.000		
Activity	0.419**	0.595**	1.000	
Self-Integrity	0.673**	0.574**	0.353**	1.000

Note: ** = p <.001

Pearson's correlation results reveal that evaluation, potency, and activity positively correlate with each other (see Table 3). While sentiments measuring "myself as I really am" have been found to modestly correlate with each other (MacKinnon 2015), the new measure of "myself as I currently feel" had much higher positive correlations among sentiments. Self-integrity scale scores also positively correlated with self-evaluation, potency, and activity. However, an ANOVA did not reveal any significant differences between the priming conditions when compared on self-integrity scores (p = .38). Interestingly, the standard manipulation check for self-affirmation could not detect an effect, but the simple self-evaluation scale did yield a significant difference between the self-affirmation and the self-uncertainty conditions.

DISCUSSION

This study evaluated whether measures of self-evaluation, potency, and activity could capture sentiment changes of self-affirmation and self-uncertainty primes. I found that the self-

affirmation condition was significantly higher on the evaluation dimension compared to the self-uncertainty condition. However, potency and activity were not statistically significant (though activity was trending in the predicted directions). Importantly, the self-integrity scale, a scale commonly used to measure self-affirmation, was not significant for measuring any differences between the three conditions. This suggests that a simple self-evaluation scale inspired by ACT-Self may offer utility for capturing sentiment change from psychological priming.

This study is limited by its generalizability due to using a small online sample. Additionally, because the study was not conducted in a controlled setting, it is unknown what kind of distractions participants were exposed to while doing the experiment. Another limitation is the difficulty in parsing out what elements of the prime influenced one's self-sentiments. For example, by simply taking action to write about oneself, this may influence their self-activity ratings, regardless of what they write about. Despite these limitations, I still found a significant effect on the self-evaluation measure between my two primes. Neither prime was statistically significant from the control condition, but this could be due to a small sample size and low statistical power. The results from the present study suggest priming can be measured through self-sentiment change, but I cannot conclude self-sentiment measures offer greater predictive validity than the Self-Integrity Scale.

Future research can determine to what extent a controlled laboratory setting increases the effects of self-affirmation and self-uncertainty primes compared to an online environment. Furthermore, future researchers can also work to determine what elements (i.e. character limits, time spent writing essay, complexity of answers, etc.) comprise the proper "dosage" for these primes. It is also important to note how the impact of psychological primes can be more likely to be observed when outcome variables are more relevant for specific groups (Facciani 2019). The measure of self-sentiment change used in the current study may be useful for researchers studying ACT-Self who wish to capture the concept of inauthenticity directly instead of observing it through behavioral changes. ACT databases may offer insight on how concepts involved in the psychological priming vary between each other and also across cultures (Heise 2010). Finally, the present study opens potential avenues of research for how psychological primes impact self-sentiments, meanings, behaviors, and emotions.

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APPENDIX A

Self-integrity Scale from Sherman and colleagues (2009)

_____ 1. I have the ability and skills to deal with whatever comes my way.

_____ 2. I feel that I'm basically a moral person.

_____ 3. On the whole, I am a capable person.

_____ 4. I am a good person.

_____ 5. When I think about the future, I'm confident that I can meet the challenges that

I will face.

_____ 6. I try to do the right thing.

_____ 7. Even though there is always room for self-improvement, I feel a sense of

completeness about who I fundamentally am.

_____ 8. I am comfortable with who I am

APPENDIX B

Move the sliders below to rate "**myself as I currently feel**" on the following scales.

Bad,
Awful   **Good,**
                                                                                                              Nice

Infinitely Extremely   Quite   Slightly   Neutral   Slightly   Quite   Extremely Infinitely
    | | | | | | | | |

Powerless,
Little   **Powerful,**
                                                                                                              Big

Infinitely Extremely   Quite   Slightly   Neutral   Slightly   Quite   Extremely Infinitely
    | | | | | | | | |

Slow,
Quiet,   **Fast,**
Old   **Noisy,**
                                                                                                              Young

Infinitely Extremely   Quite   Slightly   Neutral   Slightly   Quite   Extremely Infinitely
    | | | | | | | | |

AUTHOR NOTE

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