SELF, IDENTITY, AND THE MENTAL HEALTH OF
SEXUAL ASSAULT VICTIM/SURVIVORS

by
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ABSTRACT

The pervasiveness of violence against women and increasing diagnosis of mental illness are two of the most pressing issues in higher education. This dissertation examines the role of self and identity in psychological distress and well-being in both a general college student sample and among victim/survivors of sexual assault. Specifically, I examine mental health through the lenses of identity theory, affect control theory, and the affect control theory of self. These theories share intellectual roots in that they conceptualize the self as a multifaceted identity set that reflects society, and they explain interaction as a dynamic control process. However, they differ in their unit of analysis, formalization, and measurement techniques, and researchers in these traditions have studied mental health in different ways. I highlight these similarities and differences by reviewing the theories’ foundations, mechanisms, and core concepts.

In the first study, I address a gap in rape research by explaining variation in psychological distress among victim/survivors of sexual violence. I use identity theory to elucidate the connections between psychological distress in the context of sexual assault and the meaning of identities, the salience of identities, and self-identification as a
“victim” or a “survivor.” In the second study, I integrate trauma perspectives on sexual violence and affect control theory, demonstrating how the identity-disrupting nature of sexual violence can lead to re-identification of self (as “victim” or “survivor”) and post-traumatic stress. In the third study, I test the mechanisms of the affect control theory of self, a newly developed, formalized theory that links the self and identity to self-esteem and depression. This is the first study designed to test the propositions of this theory and is its first longitudinal test. As a whole, these studies not only illuminate the relationships between sexual trauma, stigmatized identities, and mental health, but they address a variety of fundamental, sociological questions about the content and construction of the self, the enactment of identities, and the effects of social interaction and perception on self-esteem, depression, and distress.

INDEX WORDS: Sexual assault, trauma, social psychology, identity, mental health
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DEDICATION

I dedicate my dissertation to my family—the one I was lucky enough to be born into and the one that I have made along the way.
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CHAPTER 1
INTRODUCTION AND LITERATURE REVIEW

In 2014, President Barack Obama formed the White House Task Force to Protect Students from Sexual Assault. Part of this Task Force’s goal was to conduct a large-scale campus climate survey in concert with the U.S. Bureau of Justice Statistics (Not Alone 2014). This survey, which included self-report questions about sexual assault, rape, and sexual battery, was piloted and administered to 23,000 undergraduates at nine U.S. colleges. The incidence of completed sexual assault differed across each of the universities, ranging from about five to 20 percent of females during the 2014-2015 academic year. In another recent, large-scale campus climate survey, the American Association of Universities (AAU) surveyed almost 800,000 undergraduate and graduate students, revealing that 23 percent of females experienced sexual contact involving physical force or incapacitation during their undergraduate career (Cantor et al. 2015). These studies produce findings similar to those found in earlier sexual victimization studies, such as the College Sexual Assault Study (Krebs et al. 2007) and the National College Women’s Sexual Violence Survey (Fisher et al. 2000). Across these four studies, the prevalence of sexual assault during the entire academic career ranges between 19.8 and 26.1 percent.

Citizens of the United States are both aware of and concerned with these high levels of violence against women. In a recent national poll, nearly 84 percent of men and women ranked “reducing domestic violence and sexual assault” as the most important
priority for improving women’s lives in America (Kaiser Family Foundation 2016). Due to the prevalence and seriousness of sexual violence, scholars in a multitude of fields have examined the consequences of sexual abuse, sexual assault, and rape. In a recent meta-analysis consisting of 37 longitudinal studies and over three million participants, Chen and colleagues (2010) demonstrated a robust effect of sexual violence on the likelihood of a variety of psychiatric disorder diagnoses. Specifically, they found an effect of sexual abuse and rape on depression, anxiety, post-traumatic stress disorder, eating disorders, and suicide attempts. These studies, published between 1987 and 2008, highlight the durable, long-term effects of sexual violence on mental health. Post-traumatic stress and depression, in particular, are frequently examined. The symptoms of post-traumatic stress are extremely common—up to 94 percent of women meeting the criteria for diagnosis within two weeks of being raped—and depression is three times more likely among women who have been sexually assaulted (Rothbaum et al. 1992, Krug et al. 2002).

Despite the potential negative impact of sexual violence on mental health, there is great variation in the level of distress a victim/survivor experiences (Weaver and Clum 1995). Studies demonstrate the direct effects of assault characteristics on psychological distress and how factors such as self-blame and a history of abuse or adversity exacerbate distress (Brewin et al. 2000, Herman, Russell, and Trocki 1986). Weaver and Clum (1995) highlight the fact that both objective factors of an assault (e.g., presence of a weapon) and subjective experiences (e.g., perceived life threat) contribute to levels of distress. In their mixed methods study that utilized both close-ended survey questions and victim/survivor narratives, Boyle and McKinzie (2015) found that participants could have
objectively similar assaults (e.g., their relationship to the perpetrator, their age, level of violence and resistance, etc.) yet describe very different interpretations and emotional responses to the incident. They argue that one must take into account more general understandings of self and past experiences to explain the emotional and mental health effects of sexual assault.

The goal of this dissertation is to test hypotheses derived from social psychological theories that link self and identity with psychological distress and well-being. In order to do so, in the following sections, I lay the foundation for three distinct yet related studies. First, I describe the three theories utilized in this dissertation: identity theory, affect control theory, and the affect control theory of self. I review the theories’ core propositions and concepts, summarize their extant empirical literatures, and demonstrate how the theories intersect and diverge in their understandings of, and utility for, understanding identity and mental health. Second, I demonstrate the application of said theories to sexual assault by reviewing studies of “victims” and “survivors” of both cancer and gender-based violence. These studies support my claim that by examining identities—both positive ones and negative ones—we can better understand how traumatic events affect the self and mental health. I conclude this first chapter with a summary of gaps in the literature for understanding the outcomes of sexual assault, and I explain how I will use social psychological theories to study the mental health of victim/survivors of sexual assault and college students more generally.
SELF, IDENTITY, AND MENTAL HEALTH

Meta-Theoretical Frameworks

In order to grasp the concepts and mechanisms of identity theory, affect control theory, and the affect control theory of self, it is advantageous to highlight their shared intellectual foundations in symbolic interactionism, control processes, and the measurement of semantic meaning. All three theories share roots in the meta-theoretical traditions of classic symbolic interactionism (e.g., Berger and Luckmann 1966, Cooley 1902, Mead 1934) and structural symbolic interactionism (Stryker 1968). Although these two strains of symbolic interactionism vary in their level of formalization, methodologies, and ontological approach (McPhail and Rexroat 1979, Blumer 1980), there is principal agreement on the core premises codified by Blumer (1969). These three principles are that humans are uniquely able to take the role of the other, that they are able to adjust and adapt their behavior to environments, and that the self is conceivable through communication with significant symbols (e.g., language). The reflexive process of taking oneself as an object of study means that humans behave in accordance with self-meanings. While self-meaning is only possible through interaction in society, this process is internal and rehearsed. These principles, drawn largely from the philosophical writings of Mead (1934) and Cooley (1902), provide a framework for understanding interaction as engagement with symbols and the creation of meaning, and the self as reflexive process rather than a fixed identity or set of personality traits.

Identity theory, affect control theory, and the affect control theory of self formalize this process of reflexivity and adjustment by drawing from Powers’ (1973) perceptual control theory, which describes a dynamic process in which input enters a
system and is compared to the system’s standard. Discrepancies between the external input and the system’s standard produces an error signal and motivates action that will restore equilibrium. This theory is concerned with how signals from the environment are incorporated into perceptions and influence behavior. This mechanism is very different from behaviorist explanations of early psychologists who focused on conditioning. Rather than a learned response, it is discrepancy between the self and the environment that motivates behavior. While modes of discrepancy reduction are certainly learned and responsive to stimuli, the process is more complicated than the classic behaviorist explanation. In a control system, a person’s standard (her or his thermostat) is at the core, with input constantly challenging it, and the system’s output constantly responding to it. The social psychological theories tested in this dissertation incorporate perceptual control theory into their primary motivating mechanism; all three theories describe a process in which feedback from our environment is compared to self-conceptualizations, producing distress when feedback and self-conceptualizations are not aligned, and instigating an adjustment process in which equilibrium is sought.

Identity theory and the affect control theories not only share their understanding of the reflexive self as a constantly adjusting and correcting process, but they utilize similar measurement systems to operationalize the meaning of self, identity, behaviors, and emotion. Osgood and colleagues (Osgood, Suci, and Tannenbaum 1957, Osgood 1962) developed the semantic differential, a 7-point scale that reflected their “view of meaning as internal, bipolar responses to stimuli” (Stryker and Burke 2000:287). In dozens of cross-cultural studies and factor analyses, Osgood and colleagues found that these bipolar stimuli underlie how we understand and respond to objects and events.
Identity theory researchers use these bipolar scales to measure an individual’s level of endorsement of a specific identity (Burke and Tully 1977). Researchers, through pretests and previous research, present participants with a set of concepts that are relevant to the identity of interest and ask participants to rate themselves on the semantic differential. For instance, in Burke and Tully’s (1977) study of gender roles, participants rated themselves on scales anchored by terms such as “not emotional/emotional,” “timid/bold,” and “brave/cowardly,” as a reflection of their girl or boy gender identity.

Alternatively, in affect control theory, Heise (1977, 1979) drew on the work of Osgood and colleagues to measure, on a societal level, the cultural meanings of identities. In other words, while identity theory uses the semantic differential scales to determine how a person feels about his or her own identity, affect control theory aggregates the ratings for specific identities (e.g., “victim” or “parent”) to produce aggregate-level, culturally agreed-upon sentiments for identities. Osgood and colleagues found that the three primary, relatively independent dimensions in his cross-national data were evaluation (good or bad), potency (strong or weak), and activity (calm or lively, quiet or loud). For each identity—and for that matter, emotion, behavior, or setting—affect control theory researchers collect “dictionaries of meaning” that reflect a language culture’s feelings about concepts. These sentiments guide interpretations of, action towards, and feelings about actor-behavior-object events, which are the units of analysis in the theory. In the newly developed affect control theory of self, MacKinnon and Heise (2010) bridge identity and affect control theory by focusing on the individual while using evaluation-potency-ratings to conceptualize a higher order mechanism than identity—they use EPA ratings to conceptualize the self.
In summary, identity theory, affect control theory, and the affect control theory of self are rooted in symbolic interactionism, use a control system to explain self- and identity-processes, and utilize the semantic differential to measure meaning. However, importantly, these theories focus on different units of analysis, thus producing different hypotheses. Identity theory focuses on specific identities and the level of which an individual ascribes to the identity in question. Affect control theory focuses on events, using a precise calculus to make predictions about how interactants invoking specific identities will feel and behave in social situations based on culturally agreed-upon sentiments. Finally, the affect control theory of self utilizes similar equations to affect control theory while examining the higher order processes of the self. Due to their varying units of analysis and foci, these theories offer different, albeit occasionally complementary predictions about human behavior and more importantly for this dissertation, about emotion and mental health. Having established their common ground, in the following section, I discuss each theory’s specific concepts, empirical literature, and approach to and understanding of mental health and psychological distress.

Identity Theory

Commitment and salience. There are arguably two strands of identity theory research, with the first focusing on social structure and identity (e.g., Stryker and Serpe 1982, Stryker 1968) and the second focusing on the “internal mechanisms of self-verification” (Stryker and Burke 2000: p. 287). According to Stryker, focusing on the former strand, the self is agentic but constrained by society and is comprised of multiple identities (1980). It is the commitment to these individual identities, and the hierarchical salience of these identities that influence behavior. For Stryker, commitment is a
structural concept that lies within one’s social ties. Commitment is defined as the number of ties one has that depend on enactment of this role (extensiveness) and the importance of those ties (intensiveness). It is “the degree to which persons’ relationships to others in their networks depend on processing a particular identity and role; commitment is measurable by the costs of losing meaningful relations to others, should the identity be forgone” (Stryker and Burke 2000: 286). Burke and Reitzes (1991) operationalized extensiveness as the number of people a person would miss, or the number of friends they have related to this role, and intensiveness as the importance of these social ties to their identities (p. 247).

Commitment to various identities, in turn, shapes the salience hierarchy, defined as the “probability that an identity will be invoked across a variety of situations, or alternatively across persons in a given situation” (Stryker and Burke 2000: 286). The identities at the top of this salience hierarchy are those that are the most “central, pervasive, encompassing, and influential” (Burke and Tully 1977:883). Stryker (1980) hypothesized that commitment increases salience, and the higher an identity is in the salience hierarchy, the more likely a person will seek role enactment opportunities (p. 83-84). According to Burke and Reitzes (1991), stronger commitment to and salience of an identity will lead one to expend more energy in order to maintain congruity between one’s behavior and behavior relevant to that identity. This is largely accomplished through “involvement in activities, in organizations, and with role partners, all of which support the person’s identity” (p. 245). In their analysis of college students, Burke and Reitzes (1991) find that respondents who had high levels of commitment to the “college student” identity spent more time in that role and had higher grade point averages.
Identity meanings and control. Burke and colleagues contributed to the growth of identity theory by providing a measurement system for identity meanings and specifying an “internal mechanism” to explain how individuals maintain congruity between self-meaning and behavior. This second strand of identity theory research consists of Burke and colleagues’ application of Powers’ control process to role identity and behavior (Burke and Reitzes 1981, Burke 1991, Burke and Stets 2009). Originally called identity control theory due to its focus on the control of perceptions and response to discrepancy, this mechanism has since been subsumed by identity theory proper (Burke and Stets 2009).

For Burke and colleagues, the input in the control system is reflected appraisals (Cooley 1902) from the environment that signal to an actor how others see her or him. The control system is the comparator, where reflected appraisals are compared to the identity standard, the identity enacted in that instance. The discrepancy (if any) between these two create emotional distress and motivate the person to engage in restorative behavior. When confronted with consistent evidence that is discrepant from one’s identity standard, one will likely exit the role or adjust his or her identity standard. One example would be a student athlete who takes his schoolwork very seriously but is treated like a “dumb jock” by his professor. To deal with this discrepancy and emotional distress, he might act even more “student-like” to convince his professor that he is a good student. If faced with continual evidence that he is a “dumb jock,” he might drop his class or adjust his identity standard from “student” to “athlete.” All of these responses have consequences for identity, behavior, and treatment by others. Trying to show others who we think we are, adjusting our self-expectations via role change, altering the identity
standard, or exiting a situation are all viable tactics for controlling self- and other-
perceptions and maintaining meaning.

As previously discussed, Burke and Tully (1977) drew from the work of Osgood
and colleagues’ (1957, 1962) semantic differential to operationalize identity meanings.
The set of meanings chosen to represent identities are selected using pretests and factor
analyses in order to determine which concepts are most relevant to identities. Identity
theory researchers still utilize this process today. For example, in their measurement of
the moral identity, Stets and Carter (2011) presented respondents with a list of bipolar
characteristics that were garnered from the morality literature and supported in pretests.
The role identity meanings for the moral identity included honest/dishonest,
untruthful/truthful, and principled/unprincipled. The authors found participants who rated
themselves closer to the “moral” end of these bipolar measures were less likely to engage
in immoral behavior in self-reports and in laboratory tests, evincing the all-important
identity-behavior link in the theory.

This identity control system has produced a large body of research testing its core
principles. Much of this research has centered on spousal identities, race, identity change,
and/or psychological distress. For instance, Stets and Burke (2005) found that identity
non-verification increases the likelihood of marital aggression. They explain this
aggression as a spouse’s corrective behavior enacted to gain control over a partner’s
behavior (input) or view of them (reflected appraisals). Cast and Cantwell (2007)
expanded on these findings, showing that a spouse’s view and self-view change over
time, leading to greater congruence between the content of the identity standard and the
input received. Furthermore, both negative and positive feedback from a spouse are
equally powerful in shaping self-conceptions over time. Couples that have more congruence are more satisfied and committed to their relationships and are less likely to divorce. These findings on married couples are not surprising, since Burke (1991, 1996) argued that non-verification is disruptive and creates distress through decreased mastery and self-esteem (Pearlin et al. 1981). These stress-inducing processes can be observed particularly well among individuals who are multiracial or experiencing physical changes. Receiving discrepant appraisals from others regarding their conceptions of their racial identity leads to distress and motivates behavior or identity change (e.g., Campbell and Troyer 2007).

These studies support identity theory’s claim that non-verification causes distress, harms well-being, and leads to revision of self-views or corrective behavior. However, in this dissertation, I will not derive hypotheses from the theory’s control mechanism to examine corrective behavior or stress. Instead, I use the important concepts of salience, commitment, and identity meanings to determine whether these measures have a direct effect on mental health. In other words, I apply the concepts of the theory to sexual assault-related identities but do not explicitly measure identity disruption and conflict as is often done in many identity theory studies.

Affect Control Theory

Identity theory and affect control theory find most of their similarity in the core assumptions of the work of Mead (1934), though the theories vary greatly in terms of their treatment of the semantic differential and the control process. Although the theories make comparable hypotheses in some cases, due to their different specifications they often make different predictions about interaction and emotion (Robinson and Smith-
Lovin 1992). The theories also differ in their units of analyses, level of formalization, and treatment of emotion.

**Fundamental sentiments and EPA ratings.** Affect control theory asserts that individuals want to experience a world they understand and in which they feel comfortable (MacKinnon 1994). Individuals look for cues in an interaction to define the situation in order to proceed appropriately. This view of the world and situations consists of *fundamental sentiments*, which exist about behaviors, people, and emotions. Fundamental sentiments are internalized through the process of socialization and operate at a subconscious and sometimes conscious level, allowing people to make inferences about situations and negotiate meaning (MacKinnon 1994).

Affect control theory (ACT) also utilizes the semantic differential, albeit in a different way. In ACT, fundamental sentiments are operationalized as *evaluation* (good or bad), *potency* (strong or weak), and *activity* (calm or lively, quiet or loud) ratings, the three most important underlying dimensions of meaning, according to Osgood (1962). These scales are strongly correlated with the sociological concepts of status and power, and they have been used in diverse settings to predict behavior (e.g., Kroska and Harkness 2006, 2011, Schröder and Scholl 2009, Smith-Lovin and Douglass 1992). These *EPA ratings* of identities and behaviors, ranging in measurement from -4.3 to +4.3, are mapped onto the three-dimensional semantic differential. The EPA ratings of respondents are aggregated into EPA profiles of concepts and are compiled into cultural dictionaries of meaning.

**Transient impressions and deflection.** Due to the differing motivations, expectations, and definitions of the situation by individuals, fundamental sentiments are
bound to be unconfirmed at times (MacKinnon 1994). Every event produces *transient impressions*, which are situation-specific sentiments. When a behavior is enacted, it influences impressions of the individuals involved. For instance, because “hit” is a negatively evaluated behavior, hearing that a “Mother hit a Child” would lead to more negative views of these actors. Since transient impressions are also measured in semantic space, this event would produce evaluation (E) scores for both actors that are lower than the fundamental sentiments for the non-contextual identities “Mother” and “Child.”

When social actors encounter a situation or event that challenges these enduring categories, *deflection* is produced (MacKinnon 1994). Deflection reflects how well an interaction is confirming sentiments (Smith-Lovin 1990, Smith-Lovin and Heise 1988), and its size and direction determine what emotions will be produced, such as anger or distress (Nelson 2006). Deflection is operationalized as the distance between fundamental sentiments and transient impressions (MacKinnon 1994). Deflection (D) is calculated by summing the squared distances between EPA ratings of the fundamental sentiments (Ae) and transient impressions (AeI) for the actor (A), the behavior (B), and the object (O) (Heise and Smith-Lovin 1981, Smith-Lovin 1987).

\[
\text{Deflection} = \sum ((Ae - AeI)^2 + (Ap - ApI)^2 + (Aa - AaI)^2 + (Be - BeI)^2 + (Bp - BpI)^2 + (Ba - BaI)^2 + (Oe - OeI)^2 + (Op - OpI)^2 + (Oa - OaI)^2)
\]

Deflection may be small and manageable in likely situations, or large and problematic in unlikely situations.

In order to restore meanings and maintain smooth interaction, a person will reconceive a disturbing event in order to keep identities intact. Individuals will aim to restore meaning by taking restorative action, adding modifying attributes to an element of
the situation, or redefining one of the elements (Heise 2007, MacKinnon 1994). Attempts to align “learned expectations (reference levels)” with “incoming stimulation” is consistent with the active process described by Powers (1973) (Heise 1979). Deflection is an important yet understudied aspect of the theory (Boyle and McKinzie 2015, Francis 1997, Nelson 2006). Scholars have suggested that deflection is not always resolvable and that the accrual of deflection over time is associated with post-traumatic stress, rumination, and impaired health (Boyle and McKinzie 2015, Francis 2003). By including the perceptions of the actor and behavior and emotion, affect control theory allows for a more nuanced understanding of how the violation of expectations leads to distress and identity revision. Systematic tests of ACT’s predictions may better explain responses to identity-disconfirming events and refine ACT by revealing how individuals resolve deflection. Therefore, as will be seen in this dissertation, affect control theory can be used to formally predict how disrupting an event—such as sexual assault—is, leading to re-identification and post-traumatic stress.

In sum, identity theory and affect control theory share intellectual roots, but because they vary in their measurement and breadth, they have different strengths and weaknesses. Identity theory focuses on the individual, can explain identity change over time, and measures identity in very specific ways. Affect control theory is somewhat limited in its application beyond single events but is fully formalized and proposes a general measurement scheme for all identities, behaviors, and emotions. Both identity theory and affect control theory have the capacity to describe and predict responses to identity disruption, though in varying contexts. Identity theory has been applied almost exclusively to positively evaluated identities, albeit in dozens of laboratory and survey...
studies; affect control theory has been applied to positive and stigmatized identities and
deviant behaviors, but mostly within simulation, vignette, and EPA rating studies. This
dissertation contributes to social psychological understandings of identity by testing
hypotheses derived from both theories in the context of both positive and stigmatized,
non-role identities: the victim and the survivor. I explicitly test the effects of identities
and their disruption on psychological distress using affect control theory, a much-
theorized but yet untested relationship.

The Affect Control Theory of Self

The affect control theory of self (MacKinnon and Heise 2010) is a new theoretical
development that, rather than focusing on identities or events, focuses on the self. While
affect control theory centers on deflection and redefinition in events, the affect control
time of self explains longer-term self stability (and change) with similar concepts.
MacKinnon and Heise (2010) describe how an individual moves between institutions and
situations, enacting single identities from their identity set. This aggregation of identities
includes any role they have enacted in the past, whether or not they find this role
personally relevant. The biographical me results from the reflexive process described by
Mead (1934) and Cooley (1902): the dialogue between the “I” and “me,” the “self” and
“society.” The biographical me is constructed through both introspection and interaction
with others and allows for some stability and continuity as a person moves through
multiple institutions and roles.

The important difference between the identity set and the biographical me is that
the latter does not contain all roles one has occupied at some time. Rather, only roles that
are personally relevant, that are a part of a person’s self-construction, exist in the
biographical me. MacKinnon and Heise (2010) use language similar to Stryker’s (1980) discussion of commitment to explain why some identities exist in the biographical me: as one spends an increasing amount of time within an institution’s settings, individuals are more likely to consider themselves a “player within [that] institution” (p. 37). Thus, although MacKinnon and Heise (2010) do not offer a full specification of which identities should become a part of the biographical me, they do suggest that time spent in that role and its institutions, frequent interaction in that role, and an overall sense of commitment matters. Thus, while the authors argue that individuals have some agency, the biographical me is also a structural concept, a result of patterned interactions.

MacKinnon and Heise (2010) introduce another self-related concept in their theory: the *persona*. Like the biographical me, the persona is constructed reflexively. However, the persona contains the biographical me along with a host of other characteristics: material possessions, physical features like weight or appearance, and psychological features like personality and dispositional traits. This is a singular identity that “incorporat[es] the sense of being an embodied entity with distinct… characteristics” (p. 109). The persona evokes a self-conceptualization called *self-sentiments*: a fundamental feeling about the self. Consistent with fundamental sentiments in affect control theory, self-sentiments are mathematically expressed as evaluation, potency, and activity (EPA) ratings. The affect control theory of self (ACT-Self) model suggests that individuals will attempt to maintain these self-sentiments through identity selection in a cybernetic control system. Individuals rely on cues found in the setting, and cultural meanings of objects in their surroundings in order to actualize or sustain their self-sentiments (p. 39). Thus, ACT-Self incorporates affect control theory measurement and
concepts into identity theory’s complex conceptualization of the structural self, composed of multiple identities and reflecting society (Burke and Stets 2009, Mead 1934, Stryker 1980).

The goal of the individual is self-actualization¹ (MacKinnon and Heise 2010:120). An individual experiences self-actualization when she or he is able to enact identities that sustain the self-sentiments. This means enacting and displaying confirmatory roles: an individual must “look, talk, act, and feel as [she or he] is supposed to” (p. 119). Thus, the individual will likely adopt identities (I) or attributes that have EPA ratings close to their own self-sentiment (S), calculated as such:

\[
\text{Error signal} = \sqrt{(Se - Ie)^2 + (Sp - Ip)^2 + (Sa - Ia)^2}
\]

The distance between self- and identity-sentiments is the error signal. As this distance and the error signal increase, the likelihood of enacting that identity decreases. For example, MacKinnon and Heise (2010) describe how a sociopath will likely enact other deviant roles that are close to its rating in semantic space, such as prostitute, pervert, or offender (p. 142). The calculations made using self-sentiments are largely consistent with a classic study of sociopath activities (Robins 1966). This example is important, as it shows how self-actualization is not necessarily self-enhancing, and that this mechanism can explain a multitude of deviant and negatively evaluated identities and behaviors.

Although this resultant error signal produces cognitive and affective distress like deflection, its measurement is different. In ACT, deflection is the distance between

¹ It is important to note that this term is used differently than in its long-standing definition used in psychology, generally meaning to realize one’s full potential (Goldstein 1939).
fundamental sentiments and transient impression for the actor, behavior, and object. For example, in this dissertation, I use affect control theory to test how being the object of sexual assault produces disempowering transient impressions and high levels of *deflection*. In ACT-Self, the error signal is the distance in semantic space between the self-sentiments of one’s persona and the fundamental sentiments of the identity she or he enacts (or is forced to enact) in a situation. Using the affect control theory of self in this dissertation, I predict which identities are self-actualizing to a person, based on the *error signal* between their self-sentiments and the fundamental sentiments of those identities.

In this way, ACT-Self complements ACT, as they both describe symbolic control systems that maintain sentiments. However, in ACT, individuals are motivated to act in ways that maintain fundamental sentiments about identities and behaviors in an *event*. In ACT-Self, the actors are motivated to enact roles and enter institutions that maintain relatively stable sentiments about *themselves*. In this dissertation, I use the self-actualization proposition of ACT-Self to calculate error signals and predict individuals’ endorsement of identities using their self-sentiments.

Self-sentiments not only have consequences for behavior but for self-esteem and mental health. In his recent expansion of the affect control theory of self, MacKinnon (2015) composed an in-depth discussion and critique of the measurement and study of self-esteem. MacKinnon (2015) argues that there is a lack of distinction between cognitive and affective components of the self in self-esteem research. He summarizes and levies his own critiques of self-esteem, particularly in relation to “the way the construct has been conceptualized and measured” and the use of Likert scales rather than the bipolar semantic differential (p. 160) (Baumeister et al. 1993, Russell and Carroll
1999, Scheff and Feardon 2004). He suggests that self-sentiments, which seamlessly incorporate thoughts and feelings about the self, provide a more comprehensive understanding of self. He argues for, and finds support for, a three-factor model of self: self-esteem, self-efficacy, and self-activation, which are consistent with the evaluation-potency-activity dimensions of the affect control theories and thus can be entered into the “mathematical models of the self-process” (MacKinnon 2015:160). Specifically, while drawing from the theorizing and research of others and his own empirical tests, MacKinnon (2015) conceptually and/or explicitly links evaluation with self-esteem and depression, potency with self-efficacy, and activity with depression. In Chapter 4 of this dissertation, I will test not only the relationship between self-sentiments and identity endorsement, but also how both self and identity (as measured and conceptualized in ACT-Self) predict self-esteem, self-efficacy, and depression in a longitudinal sample of male and female college students.

“VICTIMS” AND “SURVIVORS”

The social psychological theories applied in this dissertation can be used to not only understand mental health broadly, but also to increase understanding of the effects of sexual assault. In identity theory, affect control theory, and the affect control theory of self, individuals are motivated to confirm their identity standard, avoid deflection, and maintain self-sentiments, respectively. However, all three theories expect that individuals have limited agency in guiding interaction and controlling their lives. In the following sections, I introduce two sets of studies. The first, in which researchers examine the identities of persons who have been diagnosed with cancer, demonstrates that commitment to and the salience of even a negative identity influences mental health. The
cancer identity literature provides insight into the experience of identity disruption and what it means to be a “victim” or “survivor” in our society, which I will then extrapolate to the experience of sexual assault. Here, I introduce research on “weak victims” and “strong survivors” in the context of violence against women. Together, these studies describe cultural depictions of victims and survivors and provide a framework consistent with theories of identity and affect control for understanding the consequences of these labels.

**Persons with Cancer**

One of the most potentially distressing and identity-disrupting experiences a person can have is diagnosis of a serious disease. The term “cancer survivor” is commonly used in public discourse, used by medical professionals, the media, corporations, and activists, making the once private and silent experience of cancer a very public identity (Kaiser 2008). This term was particularly stressed by the National Coalition for Cancer Survivorship, which emerged in the mid-1980’s and aimed to move away from the terms “patient” and “victim,” which indicate powerlessness, loss of hope, and reduced feelings of control (Beanlands et al. 2003, Chamaz 1983, Dunn 2005). Although women are encouraged to see themselves as “survivors” of breast cancer, this dominant view has been criticized as ignoring the effect of social forces on disease, muting negative emotions and experiences, and pushing women to appear cheerful, feminine, and to “pass” as non-sick persons (Goffman 1963, Hozman 2005, Klawiter 1999, Thomas-MacLean 2005). A woman may refuse to adopt the label “survivor” because it inaccurately implies that she can be completely cured, out of fear of recurrence, or because it connotes strength over extreme obstacles—images that are inconsistent with
how she perceives herself and her experiences (Deimling, Kahana, and Schumacher 1997). While there are numerous reasons not to adopt a “survivor” label, it is clear that a dominant discourse exists, encouraging women to see themselves as optimistic, feminine warriors (Ehrenreich 2001, Kaiser 2008).

Researchers have applied the work on identity by Stryker (1968, 1980), Burke and Stets (2009), and Thoits (1991) to explain the adoption and experience of cancer identities, in particular, the labels of “survivor” and “victim.” These theories are of particular interest for cancer researchers because new identities must be integrated into the self-concept, affecting both social and psychological well-being (Brennan 2001, Mathieson and Stam 1995, Stovall, Greenfield, and Hewitt 2005). Zebrack (2000) draws from identity theory to explain this process: “life-changing events are disruptive to the extent that they cause an interruption of the normal process of identity formation and a failure to bring self-perceptions into line with an underlying identity standard” (p. 240). The dissonance and distress caused by this process has an impact on the individual’s well-being. Zebrack (2000) adopts this symbolic interactionist perspective, arguing that the quality of life for a person with cancer depends on her or his ability to resolve these identity disruptions, reconcile ideal health with actual experiences, and receive positive feedback from others. If this process results in labeling oneself as a “survivor,” Zebrack (2000) argues that a person will develop “new values and ideals” that will serve as the foundation for a new sense of self, which may increase well-being (p. 240).

Park, Zlateva, and Blank (2009) support Zebrack’s (2000) assertions about identity influencing well-being and behavior; these authors found that identification with “survivor” was associated with post-traumatic growth, increased positive affect, and
decreased negative affect. Identification with the “victim” label was negatively associated with mental health, positive affect, life satisfaction, and post-traumatic growth. The “victim” label was positively associated with negative affect and intrusive thoughts. These findings confirm an earlier study that found a “survivor” or “conqueror” reported higher rates of positive affect than “patient,” “victim,” and “someone who has had cancer” (Bellizzi and Blank 2007). Whether the adoption of these identities precipitated or is an outcome of these well-being measures is not known, but given the nature of identity and control theories, it is likely that this process is self-reinforcing. These studies are consistent with my approach, in that I examine the direct impact of identities on mental health rather than on identity disruption.

Weak “Victims” and Strong “Survivors”

There is also a lively discussion about what it means to be a “victim” both within and outside of feminism (Cole 1999). Recent and dominant feminist discourses perpetuate the idea that “portraying oneself or other women as victims is to be avoided at all costs,” and that women are forced to choose between “victim” and “survivor” labels from a simplified binary (Convery 2006:2). Indeed, Dunn’s (2005) work on victim discourses has shown a decrease in the application of the “victim” identity among feminists, activists, clinicians, academics, and in the media. Dunn’s (2005, 2010) work emphasizes that victims are devalued in our culture and portrayed as having little to no personal responsibility, agency, or power. On the other hand, survivors are portrayed as agents able to make choices and resist male violence. The cultural meaning of these labels is clear, but how their adoption might affect women’s experiences is unknown, given the lack of research. For instance, it seems sensible that “victims” might suffer more negative
psychological consequences due to their devalued status, and that “survivors” would be more likely to defend themselves. Dunn (2005) warns, however, that a transition from victim to survivor may have unintended consequences, such as shifting the focus away from offenders and social forces that make women vulnerable to victimization. Clearly, an individual’s experience is far more complex than the simple adoption of either of these labels, but it is important to consider their cultural meanings and how each might influence women’s post-assault outcomes.

The preceding debates seem to speak past the empirical literature on victimization and identity. Current research largely neglects the “survivor” identity and instead focuses on predictors and outcomes of acknowledging as a “victim of rape.” In Koss’s (1985) landmark study, 57 percent of participants who answered affirmatively to behavioral questions about rape said that they had never been raped when asked directly. This line of research has assumed that naming oneself as a “victim” is a positive step in the “working through it” recovery process, and that breaking the silence is a powerful political act (Best 1997, Lamb 1999). There is some support for this notion: women who acknowledge are more likely to disclose to healthcare providers and counselors, end their relationship with the perpetrator, and report to police (Botta and Pingree 1997, Conoscenti and McNally 2006, Layman et al. 1996, Littleton and Henderson 2009, Littleton et al. 2008, Pitts and Schwartz 1993, Schwartz and Leggett 1999). Although most studies are limited due to their cross-sectional design, they suggest that women who see themselves as victims of rape engage in positive reactions, or that these positive reactions influence their labeling of the assault. Either way, labeling and coping with sexual trauma are intertwined.
The relationship between acknowledgment and psychological well-being, however, is less clear. Numerous studies find higher levels of negative emotion, stigma, and anxiety among women who agreed that they had “ever been raped by a man” (Kahn et al. 2003), answered affirmatively to the question “have you ever been raped” (Koss 1985), or who labeled their experience “rape,” “attempted rape,” or “some other crime” (Littleton et al. 2008, 2009). However, other studies contradict findings that acknowledgment is positively associated with distress and mental illness symptoms. In Botta and Pingree’s (1997) study, women who selected “no” when asked if they had ever been sexually assaulted reported greater emotional problems than those who answered “yes.” Other studies found no differences in self-esteem, somatic symptoms, post-traumatic stress, or general psychiatric symptoms based on acknowledgment status (Conoscenti and McNally 2006, Koss 1985, Layman et al. 1996, Littleton et al. 2008).

Due to the varying operationalization of “acknowledgment” across studies of mental health, it is difficult to establish patterns in findings. For instance, for Layman et al. (1996), being a victim of rape makes you acknowledged, but a victim of some other crime is labeled as unacknowledged (along with “I don’t feel I was victimized”). For Littleton and colleagues (2008, 2009), experiencing a crime other than rape places you in the acknowledged category. Botta and Pingree (1997) use the term “sexual assault,” which would be unacknowledged for Layman et al. and acknowledged for Littleton et al. While these are not shortcomings for individual studies in and of themselves, they make it difficult to establish the effects of victim, as an identity, and behavior labels, such as rape or sexual assault, on psychological well-being.
Despite these complications, a few trends emerge—though they are not definitive. First, studies that focus on the labeling of behavior—e.g., “raped,” “raped by a man,” and “have you ever been raped”—tend to find a negative impact of acknowledgment on emotion and psychological distress. Second, studies with opposite or null findings tend to use “victim of rape,” which conflates an identity with a behavior. One can acknowledge that he or she was raped, but not feel like a victim, or vice versa. Examining labels for self and behavior separately may disentangle these complicating effects. Furthermore, in quantitative studies of acknowledgment, participants are dichotomized into “acknowledged” and “unacknowledged” categories, which does not allow for gradients in attitudes and may obscure the nuanced nature of identity and mental health (Boyle and McKinzie 2015).

CONCLUSION

Despite the popularity of naming victims of incest and sexual assault “survivors” and the increasing application of the term in activism, academic research, and clinical practice (Dunn 2005), there has yet to be a study gauging which labels actually improve an individual's well-being. Because “victim” and “survivor” identities have strongly divergent meanings and thus create different expectations for behavior, each needs to be addressed. Unlike the victimization literature that only focuses on the effects of labeling oneself as a “victim of rape,” the aforementioned cancer studies provide a more nuanced understanding of identity through the application of social psychological theories. Because “survivors” and “victims” of cancer report varying levels of positive and negative affect, as well as behavioral outcomes, it is likely that identifying as a “survivor” or “victim” of sexual assault would also be associated with different affective outcomes.
Systematic examination of the “survivor” identity and the application of social psychological theories of identity could refine understandings of post-assault outcomes among rape victim/survivors.

In the following studies, I utilize a social psychological approach to understanding the relationships between self, identity, sexual trauma, and mental health. I apply three theories of self and identity that have similar theoretical roots yet endorse varying approaches to interaction and the effects of identity on psychological well-being. By engaging with social psychological processes, this dissertation contributes to the rape acknowledgment literature by moving beyond the “victim” label, and to the victim/survivor discourse research by conducting explicit tests of the grounded findings linking victimhood with weakness and survivorhood with strength. Whether these cultural understandings of identities translate into poorer adjustment remains an empirical question. This dissertation also contributes to sociological theory more generally by (1) testing hypotheses using the concepts of identity theory with stigmatized and non-role identities, and (2) using affect control theory, deflection, and re-identification to understand post-traumatic stress among victim/survivors of sexual assault, and (3) serving as a first longitudinal test of the newly developed affect control theory of self and its implications for mental health. In doing so, I offer various social psychological understandings of the functions of self and identity, and its disruption, in relation to mental health and responses to sexual trauma.
CHAPTER 2

“VICTIMS” AND “SURVIVORS” OF SEXUAL ASSAULT:
THE ROLE OF IDENTITY IN DISTRESS AND WELL-BEING

There is no doubt that sexual assault often leads to negative consequences, including decreased self-esteem, depression and anxiety, alcohol abuse, and impaired academic achievement (e.g., Golding 1999, Jennison 2004, Kaysen et al. 2006, Kemp et al. 1995, Kilpatrick et al. 2000, Noll et al. 2003, Orava, McLeod, and Sharpe 1996, Stepakoff 1998). It is not clear, however, how women’s perceptions of their victimization affects these outcomes. Research finds that acknowledging as a victim of rape is associated with more stigma, negative affect, and psychological distress—though findings are mixed across studies (Botta and Pingree 1997, Layman et al. 1996, Littleton and Henderson 2009, Marx and Soler-Baillo 2005). Because acknowledgment researchers tend to focus on legal and cultural scripts of “rape,” it is unclear whether adoption of “victim,” as an identity, has positive or negative consequences. Complicating this literature is the decades-long push for the adoption of a “survivor” discourse—which is said to facilitate recovery from sexual assault—and a lack of research on this identity (O’Sullivan 2008, Xenarios 1988). Thus, in this study I ask: how does the labeling of oneself as a “victim” or “survivor” in the context of a sexual assault influence well-being and psychological distress?

Studies of rape acknowledgment have not made use of rich theoretical perspectives that demonstrate the relationship between self, identity, and psychological
states. To advance research on the relationship between assault labeling and mental health, it is important to understand identity more generally, as a symbolic social psychological process. In order to push the current literature forward, I employ core concepts from identity theory (Burke and Stets 2009, Stryker 1980), a theory that explicitly links identities to behavior and mental health. I argue that victimization outcomes are not only a result of how one labels oneself in the context of an assault. Rather, whether the “victim” or “survivor” identity is central to one’s self generally, outside the context of the assault, provides a more robust understanding of psychological distress. Thus, I ask: how does the salience of and commitment to victim and survivor identities, and seeing oneself in victim- and survivor-like terms, influence well-being and psychological distress?

This study follows a long tradition of examining the maintenance and (re)construction of identities in sociology and criminology. For example, studies have focused on the identity work of male victims of sexual violence and battered women, and on the cultural discourses surrounding “victims” and “survivors” of gender-based violence (Dunn 2005, 2010, Leisenring 2006). These studies are consistent with identity theory, in which identity is both a \textit{process} and a \textit{cultural product} and has consequences for behavior, emotion, and mental health. Studying “victims” and “survivors” is particularly important because these identities have deeply disparate cultural meanings, they are used simultaneously yet in opposition, and they are applied to individuals beyond sexual assault and beyond violence (Dunn 2005). Examining the relationship between “victim” and “survivor” identities stands to highlight the social psychological mechanisms that link identity to psychological distress among not only those having
experienced gender-based or sexual violence, but for people experiencing a range of traumatic or unfortunate events, such as disease, disaster, and state violence.

In order to provide a foundation for this study’s hypotheses and analyses, I first present an overview of studies of rape acknowledgment and victim/survivor discourses in the context of violence against women. I then use studies of cancer identities, which demonstrate the consequences of self-labeling as a victim or survivor, to connect rape acknowledgment studies with social psychological understandings of identity and distress. I follow with a description of the core concepts and mechanisms of identity theory, and I present theoretically and empirically-driven hypotheses and regression analyses that test these predictions. Furthermore, I discuss the relationship between sexual identities and acknowledgment, as LGBTQA students are at high risk for both sexual victimization and mental illness (Cantor et al. 2015, Descamps 2000). I conclude with a discussion of identity, sexual violence, and the implications of these findings.

**VICTIMS AND SURVIVORS**

**Rape Acknowledgment**

About sixty to seventy percent of women who have experiences consistent with the legal definition of rape do not acknowledge the act as rape (Littleton, Axsom, and Grills-Taquechel 2006, Littleton and Henderson 2009). Three decades of research have shown that women are less likely to acknowledge rape when their experiences do not meet cultural scripts of violent stranger rape or when they want to protect a known perpetrator (see Littleton et al. 2007, Wilson and Miller 2015 for reviews). Research on labeling rape has assumed that acknowledging as a “victim of rape” is a positive step in the recovery process, and that breaking the silence is a powerful act (Lamb 1999). There is some
support for this notion: women who acknowledge are more likely to disclose to healthcare providers and counselors, end their relationship with the perpetrator, and report to police (Botta and Pingree 1997, Conoscenti and McNally 2006, Layman et al. 1996, Littleton and Henderson 2009, Littleton et al. 2008, Pitts and Schwartz 1993, Schwartz and Leggett 1999). Although most studies are limited due to their cross-sectional design, as a whole, they suggest that women who see themselves as having been raped engage in positive reactions, or that these positive reactions influence their labeling of the assault. Either way, labeling and coping with sexual trauma are intertwined.

There is conflicting evidence, however, regarding the psychological effects of labeling an experience as rape. A host of studies finds a negative effect of acknowledgment on psychological adjustment, though their measurement of the concept varies. For instance, Kahn et al. (2003) find higher rates of sadness and “feeling dirty” among women who agreed that they had “ever been raped by a man,” and Littleton and colleagues (2008, 2009) find greater depression, anxiety, and feelings of stigma among those who labeled their unwanted sexual experience as “rape,” “attempted rape,” or “some other type of crime” (acknowledged) versus those that labeled it a miscommunication, seduction, hook-up, bad sex, or were unsure how to label it (unacknowledged). Similarly, in her landmark study of “hidden rape,” Koss (1985) found that women who answered affirmatively to the question “have you ever been raped” reported greater negative emotions, such as anger and fear, during their most recent sexual assault. There is also evidence that unacknowledged victims are more likely to engage in hazardous drinking (Botta and Pingree 1997, Littleton et al. 2009).
It is not surprising that women who label their experience “rape” experience negative emotion and mental health disturbances, as women who have been raped are often stigmatized and even blamed for their assault (Dunn 2005). However, some studies contradict these findings. For instance, Botta and Pingree (1997) asked if participants had ever been sexually assaulted, and they responded yes, maybe, or no. Those who answered “no” reported greater emotional problems that interfered with their social life than those who responded “yes.” Several null findings indicate differences in psychological or somatic problems may not differ significantly between the two groups: Koss (1985) found no differences in self-esteem, and Littleton, Breitkopf, and Berenson (2008) found no differences in somatic symptoms, such as chest pains and headaches. Layman et al. (1996) found no differences in a host of psychological defenses and symptomatology (e.g., defense mechanism inventory and general psychiatric symptomatology).

There are also mixed findings related to post-traumatic stress symptomatology. Layman et al. (1996) asked women, after describing a recent unwanted sexual experience, “Looking back on this experience, how would you describe this situation?” Women who responded “I believe I was a victim of rape” are considered acknowledged, while women who claimed they were the victim of serious miscommunication, victim of a crime other than rape, or “I don’t feel that I was victimized” are considered unacknowledged. In this study, acknowledged women scored higher on the post-traumatic stress disorder (PTSD) module of the DSM-III and the intrusion and avoidance subscales of the Impact of Events Scale. Littleton and Henderson (2009), who conceptualize acknowledgment as using the label rape, attempted rape, or some other crime, also found higher PTSD among acknowledged victims—though this effect
disappears when controlling for assault violence and maladaptive coping. Conoscenti and McNally (2006), who used the “victim of rape” measure, and who gathered a community rather than college sample, found no differences in PTSD due to acknowledgment. It is potentially problematic, however, that participants were recruited for this study using the words “Have you had an unwanted sexual experience? Are you still troubled by it?” which may have biased their sample towards heightened psychological distress among women regardless of their labeling.

This lack of consensus across studies may be due to varying conceptualizations of acknowledgment, although a few patterns do emerge when grouping studies by their operationalization of acknowledgment. For instance, most of the studies that find a greater negative impact among acknowledged victims focus on the behavior in their conceptualization (i.e., “raped by a man,” “have you ever been raped,” “rape,” “attempted rape,” “some other crime”). This suggests that acknowledging that one has experienced rape (or a crime) is associated with negative emotions, stigma, and mental health troubles. Conversely, some studies with opposite or null findings use the “victim of rape” measure, conflating an identity with a behavior. These close-ended questions, in which, for instance, a participant is asked to select “I believe I was a victim of rape” or “I don’t feel I was victimized,” may be confusing to participants and create a false dichotomy. Furthermore, a person is not able to say that she or he as raped yet does not feel like a victim. These measurement issues may obscure complex, gradient perceptions of sexual assault and obfuscate findings.

Other complexities abound. For Layman et al. (1996), being a victim of rape makes you acknowledged, but those who agree they were a victim of some other crime
are labeled as unacknowledged. For Littleton and colleagues (2008, 2009), saying you experienced a crime other than rape places you in the acknowledged category. Botta and Pingree (1997) use the term “sexual assault,” which would be unacknowledged for Layman et al. (1996) and acknowledged for Littleton et al. (2008, 2009). Being unsure how to label makes you unacknowledged for Littleton and Henderson (2009) or in your own maybe/unsure category for Botta and Pingree (1997). While these are not shortcomings for individual studies in and of themselves, they make it difficult to compare studies and establish the effects of victim, as an identity, and behavior labels, such as rape or sexual assault, on psychological well-being.

“Victim” and “Survivor” Identities

Meanwhile, mainstream and feminist discourses discourage women from portraying themselves and others as victims altogether (e.g., Convery 2006, Dunn 2005). Dunn’s (2005) work on victim discourses has shown a decrease in the application of the “victim” identity among feminists, activists, clinicians, academics, and in the media. Dunn emphasizes that victims are devalued in the United States and are portrayed as having little to no personal responsibility, agency, or power (Best 1997, Lamb 1999, Loseke 1999). On the other hand, survivors are portrayed as strong, willful agents who cope in positive ways and resist male violence (Kelly 1988, Mills 1985). Dominant feminist discourses perpetuate the idea that “portraying oneself or other women as victims is to be avoided at all costs,” and that women are forced to choose between “victim” and “survivor” labels from a simplified binary (Convery 2006:2). The cultural meaning of these labels is clear, but how their adoption might affect women’s experiences is unknown, given the lack of research.
Discourses that encourage “survivorhood” and silence “victimhood” are not only prevalent regarding violence against women, but are reflected in discussions of cancer. Persons with breast cancer, like rape victims, were once rendered silent by their shame and self-blame, yet both are increasingly encouraged to wear their experiences publicly as survivors (Kaiser 2008, King 2006, Leopold 1999, Plotkin 1996, Spry 1995). The term “cancer survivor” is commonly used in public discourse, used by medical professionals, the media, corporations, and activists (Kaiser 2008). Similar to violence against women movements, the National Coalition for Cancer Survivorship, which emerged in the mid-1980’s, moved away from the terms “patient” and “victim,” which indicate powerlessness, loss of hope, and reduced feelings of control (Beanlands et al. 2003, Charmaz 1983, Dunn 2005). Spry (1995) argues that women who have experienced sexual violence, like persons with cancer, are increasingly pushed into naming themselves as “victims” or “survivors” in speak-outs and group therapy regardless of whether these labels are helpful or harmful.

The experience of cancer, like victimization, forces individuals to adopt new identities that become integrated into the self-concept, thus producing dissonance and affecting both social and psychological well-being (Brennan 2001, Mathieson and Stam 1995, Stovall, Greenfield, and Hewitt 2005). A person with cancer’s quality of life depends on his or her ability to resolve these identity disruptions, reconcile ideal health with actual experiences, and receive positive feedback from others (Zebrack 2000). If this process results in labeling oneself as a “survivor,” a person will develop “new values and ideals” that will serve as the foundation for a new sense of self, which may increase well-being (Zebrack 2000:240). Park, Zlateva, and Blank (2009) support Zebrack’s (2000)
assertions about identity, finding that “survivor” identification is associated with post-traumatic growth, increased positive affect, and decreased negative affect. Victim identification is negatively associated with mental health, positive affect, life satisfaction, and post-traumatic growth and positively associated with negative affect and intrusive thoughts. These findings are consistent with an earlier study that found a “survivor” or “conqueror” reported higher rates of positive affect than “patient,” “victim,” and “someone who has had cancer” (Bellizzi and Blank 2007). Although individuals can be a victim or survivor of many different types of situations, and these two identities have very distinct, cultural meanings and associated psychological states, whether these same patterns emerge among women who have been sexually victimized has yet to be explored.

IDENTITY THEORY

Inherent in studies of self-labeling as a “victim” or “survivor” of cancer is the idea that identity is both deeply affected by misfortune or trauma, and that identity is a predictor of behavioral and emotional responses to these experiences. The meanings we hold for ourselves depend on our interactions, our reflections, and society’s shared meanings for the identities we enact. In his seminal work “The Looking Glass Self” (1902), Cooley stated that self and society are “two sides of the same coin” (Stryker 2006, p. 13), and that one cannot study either the individual or social systems in isolation—the self develops in our minds in response to appraisals given by others. Mead (1934), often named the father of American symbolic interactionism (Blumer 1969), outlined similar processes. He argued that humans are uniquely able to take the role of the other, that they are able to adjust and adapt their behavior to environments, and that the self is possible through
communications with significant symbols—language, gestures, and actions. The reflexive process of taking oneself as an object of study means that humans behave in accordance with self-meanings. These tenets are the foundation of symbolic interactionism—both its discursive, qualitative traditions (Blumer 1969) and its more structural variations (e.g., Stryker 1980, Heise 1979, MacKinnon 1994).

Salience and Commitment

Stryker (1968, 1980) drew from the foundational work of Mead, Cooley, and others to specify how identity shapes behavior in his identity theory. According to Stryker (1980), the self is agentic yet constrained by social structure, and it is comprised of multiple identities. The relative importance of each identity we hold—which is determined by its position in our salience hierarchy—determines the likelihood of our enacting that identity. The identities at the top of this salience hierarchy are those that are the most “pervasive, encompassing, influential” (Burke and Tully 1977:883). For instance, in any given situation, a working mother may enact any of the role identities in her hierarchy, such as worker, mother, wife, daughter, and the like. However, it is the ordering of these identities in her hierarchy that determines which she is more likely to enact in any given situation and the likelihood that she will seek out role enactment opportunities (Stryker 1980). If worker is highest in her salience hierarchy, she is more concerned with seeking its validation, perhaps through working late, discussing work with friends, and volunteering for work-related philanthropy events. If mother is highest in her salience hierarchy, she is more likely to join the parent teacher association at her child’s school, host playdates so she can meet and socialize with other mothers, and sign up to be her
child’s soccer coach. Time is a finite resource; the salience hierarchy drives how we divide that time when we are given a choice.

The amount of time spent enacting an identity, and the resultant institutions and situations one enters and encounters, increases commitment to that identity (Stryker 1980). For Stryker, commitment is a structural concept that lies within one’s social ties. Commitment is defined as the number of ties one has that depend on enactment of this role, the meaningfulness of those ties, and the cost of losing those ties. There is a reciprocal effect in that commitment influences the salience of an identity, and the more salient an identity, the more committed one will be (Stryker and Burke 2000). Both stronger commitment to and the salience of an identity will lead one to expend more energy in order to maintain congruity between one’s behavior and behavior relevant to that identity, which is largely accomplished through “involvement in activities, in organizations, and with role partners, all of which support the person’s identity” (Burke and Reitzes 1991, p. 245).

**Role Identity Meanings and the Identity Control Process**

Parallel to Stryker’s (1980) structural, network approach to identity and its enactment, Burke and colleagues (e.g., Burke and Reitzes 1981, Burke 1991, Burke and Stets 2009) further developed understandings of identity by focusing on the measurement of identity meanings and the “internal mechanisms of self-verification” (Stryker and Burke 2000, p. 287). According to structural symbolic interactionism (Stryker 1980), individuals are named and categorized into culturally shared classifications. In other words, based on persons’ location in social structure, we, as a society, assign expectations for how that person should behave. The self is comprised of a person’s categorizations and
expectations for behavior, her role identities (Burke 1996). For example, in their landmark study of gender role identities, Burke and Tully (1977) ascertained what these expectations are for boys and girls by conducting pretests and factor analyses in order to determine the most important underlying components of an identity. Next, participants compared themselves on bipolar scales anchored by terms such as “not emotional/emotional,” “timid/bold,” “girlish/ boyish,” and “brave/cowardly.”

This method of ascertaining identity meanings through pretests is still used in current identity theory research and has been used to link identity to behavior. For example, in their measurement of the moral identity, Stets and Carter (2011) presented respondents with a list of bipolar characteristics that were garnered from the morality literature and supported in pretests. The role identity meanings for the moral identity included honest/dishonest, untruthful/truthful, and principled/unprincipled. The authors found participants who rated themselves closer to the “moral” end of these bipolar measures were less likely to engage in immoral behavior in both self-reports and in laboratory tests.

Burke and colleagues also contributed to the growth of identity theory by specifying an “internal mechanism” to link identity to behavior. This development draws from Powers’ (1973) perceptual control theory, which describes a dynamic process in which input enters a system and is compared to the system’s standard. In the identity control process, the input is reflected appraisals (Cooley 1902) from the environment that signal to an actor how others view her or him. The control system is the comparator, where reflected appraisals are compared to the identity standard, the role enacted in that instance. The discrepancy (if any) between these two creates emotional distress and
motivates the person to engage in restorative behavior. If someone is enacting his boy identity, and feels he is being treated like he is timid or emotional (meanings more consistent with the girl identity), this discrepancy will cause him to act bolder or braver to realign others’ impressions with his identity. In support of this argument, Willer et al. (2013) found men who feel their gender identity is threatened were more likely to endorse views associated with masculinity (e.g., homophobic attitudes and support for war) and the desire to advance in dominance hierarchies. Not only the salience of identities in our hierarchies, but role identity meanings shape our self, our behavior, and our responses to the behavior of others.

In identity theory, the link between identity and mental health is the importance of identities we hold, the meaning of those identities, and their disruption (Marcussen, Ritter, and Safron 2004). In particular, much of the identity theory literature has focused on how the disruption of identities or interruption of the identity control process leads to stress (e.g., Burke 1996, Marcussen et al. 2004, Marcussen 2006). Studies have demonstrated how discrepancies between ideal and actual identities leads to depression, anxiety, or impaired self-esteem (Large and Marcussen 2000, Marcussen and Large 2003). Other studies find that discrepancies in self-views and the views of marriage partners lead to stress and identity change (Cast and Cantwell 2007, Milkie et al. 2002). In the current study, rather than focusing on the disruption of identities, I focus on the direct link between the salience of victim and survivor identities, the meanings or expectations we hold for those identities, and how they relate to both event-specific distress and general psychological well-being. While this is a departure from typical
identity theory research, I aim to establish the value of this theory for understanding mental health more broadly.

THE CURRENT STUDY

I build upon empirical studies of rape acknowledgment by investigating the role that identities—both victim and survivor—play in distress and well-being. Rather than dichotomizing participants into acknowledged or unacknowledged categories, I allow for gradients in response by asking if they see themselves as a victim and survivor on two separate continua. Furthermore, I draw from identity theory to examine how more general aspects of identity—beyond the context of sexual assault—relate to victim/survivors’ well-being. Specifically, I examine the relationship between identity salience, commitment, identity meanings, acknowledgment as a victim and survivor, and distress and well-being.

The dependent variables in this study are post-traumatic stress, depression, and self-esteem. To develop victim hypotheses, I build upon the acknowledgment literature, which generally finds a negative relationship between being a “victim of rape” and mental health, and studies of cancer identities, which demonstrate the negative consequences of “victim” endorsement on coping. Specifically, I predict:

Hypothesis 1: Post-traumatic stress will be positively associated with (a) victim identity salience, (b) participants’ endorsement of victim identity meanings, and (c) acknowledgment as a victim in the context of sexual assault.

Conversely, because commitment is conceptualized as important social ties a person would miss if exiting a role, I expect that these social ties connected to the “victim identity” may ameliorate rather than increase distress:
Hypothesis 1(d): Post-traumatic stress will be *negatively associated* with commitment to the victim identity.

Survivor hypotheses are built upon Dunn’s (2005) arguments that survivors are seen as powerful and are less stigmatized than victims, and studies of cancer identities that find self-definition as a survivor is associated with less negative outcomes than people who self-define as a victim or patient. I expect:

**Hypothesis 2:** There is a *negative association* between post-traumatic stress and (a) survivor identity salience, (b) commitment to the survivor identity, (c) participants’ endorsement of survivor identity meanings, and (d) acknowledgment as a survivor in the context of sexual assault.

In Hypotheses 3 and 4, I predict the same direction of relationships for depression as are predicted for Hypotheses 1 and 2. Finally, I examine self-esteem. Following the preceding literature, I expect:

**Hypothesis 5:** There are *negative associations* between self-esteem and (a) victim salience, (b) victim meanings, and (c) victim acknowledgment, and (d) a *positive association* between self-esteem and victim commitment.

**Hypothesis 6:** There are *positive associations* between self-esteem and (a) survivor salience, (b) survivor commitment, (c) survivor meanings, and (d) survivor acknowledgment.

In general, I expect more negative outcomes for participants rating higher on victim identity measures and acknowledgment (except for commitment) and more positive outcomes for participants rating higher on survivor identity measures and acknowledgment. I conclude the results section with a general discussion of post-
traumatic stress, depression, and self-esteem among LGBTQA victim/survivors of sexual assault. Although I make no predictions here, it is important to examine this high risk, understudied group of college students. Because the dependent variables are continuous measures, I use multiple OLS regression analyses to test these hypotheses. I also use Sobel-Goodman tests, which establish the proportion of a total effect that is explained by a mediating variable.

**METHODS**

**Sample**

Undergraduate college students were recruited by email from a large, public university in the southeastern United States, though students who identify as men are excluded from the current study. Participants who identify as women or non-cisgender (transgender, agender, gender fluid) are the focus of this study due to the increased risk of sexual victimization among these groups. Using a list of student emails received from the registrar, students were emailed and asked to participate in the “College Identity Study.” For participation, they would automatically be entered into a drawing for one of three fifty-dollar Visa check cards. Students also had the option to not participate but still be entered into the lottery by sending an email request. Potential participants were provided with a summary of the study and a link to the informational letter and survey hosted on Qualtrics. Approximately 9,975 potential participants opened the email, and 569 women and 15 transgender or agender participants completed the survey.

After completing demographic, identity, and psychological well-being measures, participants completed the Sexual Experiences Survey (Koss and Gidycz 1985), which asks behaviorally specific questions about victimization due to coercion, threats,
incapacitation, and physical force rather than asking, for example, “Have you ever been raped/sexually assaulted?” Those who indicated an assault history were asked to respond to a host of assault and post-assault questions in regard to their most recent unwanted sexual experience. Of the 569 participants, 27.4% had experienced unwanted sexual activity due to coercion, incapacitation, threats, or physical force since age 14. This includes assaults that involved forced fondling and kissing, attempted or completed vaginal penetration, penetration with an object, and oral or anal penetration. After listwise deletion, 136 participants remain for analyses in this study.

**Dependent Variables**

**Post-traumatic stress.** Participants completed the revised Impact of Events Scale (Christianson and Marren 2012), which is used to diagnose post-traumatic stress disorder (PTSD). Participants were asked to indicate how much they were distressed or bothered by a list of difficulties in the past seven days in relation to the incident they just described, and responses ranged from 1 (Not at all) to 5 (Extremely). Items include the subscales of intrusion (e.g., “other things kept making me think about it”), avoidance (e.g., “I stayed away from reminders of it”), and hyperarousal (“I was jumpy and easily startled”). These items were weighted by their factor loadings and combined to create post-traumatic stress (alpha=0.95).

**Depression.** The Center for Epidemiological Studies’ Depression (CES-D) Scale (Radloff 1977) was used to measure depression. Participants indicated how often, in the past week, they felt or behaved in a series of ways. These ten measures include statements like “I felt sad,” “My sleep was restless,” and “I felt that everything I did was an effort” to reflect various psychological, emotional, and physiological aspects of
depression. Responses ranged from never (0) to everyday (4), were weighted by their factor loadings, and were combined to create the variable depression (alpha=0.84).

**Self-esteem.** Participants also completed measures of self-esteem (Rosenberg 1979), in which they are asked to indicate how they would describe themselves. This scale includes measures such as “I feel I do not have much to be proud of” and “I feel that I’m a person of worth, at least on equal plane with others.” Responses ranged from strongly disagree (0) to strongly agree (3). As with other dependent variables, I created a scale variable, weighting items by their factor loadings for self-esteem (alpha=0.89).

**Independent Variables**

**Salience.** Participants were asked “To what extent does the word ‘victim’ [‘survivor’] describe you?” on a range from one (does not describe me at all) to seven (describes me). Those that did not select “does not describe me at all” completed measures of salience. Using Burke and Reitzes’ (1981) methodology, respondents were asked to indicate their level of agreement with the following statements: “It is important that I tell new people that I am a victim [survivor]” and “I discuss being a victim [survivor] with my close friends and family.” Responses ranged from one (strongly disagree) to four (strongly agree). Participants were coded as zero if they indicated that the identity does not describe them at all in the prior question. Responses to these items were combined into factor scores for victim identity salience (alpha=0.76) and survivor identity salience (alpha=0.86).

**Commitment.** Following Burke and Retizes’ (1991) operationalization of commitment, it is measured here as agreement with the statement “I would miss a lot of people if I were no longer a victim [survivor].” Responses ranged from strongly disagree
(0) to strongly agree (3). Higher scores on this variable indicate a stronger commitment to the victim or survivor identity.

**Identity meanings.** Using Burke and Reitzes’ (1981) and later researchers’ protocols, concepts most frequently associated with “victim” and “survivor” in a pretest were used to measure identity meanings. Ninety-six students at the same university were recruited via email through professors that volunteered to share the survey with their students. Participants were asked “What words describe someone who is a victim [survivor]?” They were asked to list up to ten words and were provided with an open-ended space. The four most commonly used words to describe a victim were hurt, helpless, scared, and sad. Following identity theory methodology (see Burke and Stets 2009), antonyms for these words were chosen to create bipolar continuum measures. Participants were asked to rate themselves along the continuum of items associated with the victim identity (hurt, helpless, scared, sad) and the survivor identity (strong, brave, confident, winner). These measures were included in a large list of items, and the ordering was randomized. These ratings were used to create the variables *victim identity meanings* (alpha=0.69) and *survivor identity meanings* (alpha=0.75).

**Acknowledgment.** After describing a recent unwanted sexual experience, respondents were asked to indicate their level of agreement with the following statements regarding this incident: “I am a victim” and “I am a survivor.” Responses ranged from one (strongly disagree) to eight (strongly agree).

**Control variables.** A host of assault characteristic measures were collected to include as controls. Respondents were asked whether the perpetrator used *physical force* and whether they were *injured* or used *physical resistance*. These are dichotomous
variables and coded one if they answered affirmatively and zero otherwise. Participants were also asked about their relationship to the perpetrator. If the perpetrator was their boyfriend or girlfriend at the time of the incident, they were coded one for boyfriend or girlfriend. If the perpetrator was a family member or close family friend, friend or acquaintance, date, ex-partner, co-worker, employer, or unknown person, they were coded zero for boyfriend or girlfriend. (It is worth noting, however, that 134 of the 136 incidents involved a male perpetrator or male perpetrators, and there is only one girlfriend in the boyfriend or girlfriend category.)

Demographic characteristics were also included. Black is coded one if the participant identifies as black or African American (8%) and LGBTQA was coded one if they identified as any non-heterosexual (gay, lesbian, bisexual, pansexual, demisexual, unsure, curious, or asexual) or non-cisgender (transgender, agender, gender fluid) category (22%).

RESULTS

Descriptive Statistics

Characteristics of participants in this study reflect common patterns in sexual assault among college women (Table 2.1). The majority of participants were assaulted by a boyfriend, girlfriend, date, friend, or acquaintance (69%). The remaining participants were assaulted by an ex-romantic partner (6%), family member or close family friend (24%), employer (2%), or unknown person (<1%). Most assaults involved attempted or completed vaginal penetration (61%) and/or penetration of the vagina with an object (62%), while some involved oral penetration (25%) or anal penetration (11%). Over half of perpetrators used verbal coercion or arguments (65%) and approximately a third used
physical force (34%). Less than a fifth of the participants were injured (17%), and a majority used physical resistance (51%). In sum, most participants were assaulted by a coercive, known perpetrator, experienced vaginal penetration, and resisted the assault in some way.

(Table 2.1 about here)

In general, participants tended to describe themselves in more positive terms and to associate more with the “survivor” identity than the “victim” identity (Table 2.2). Specifically, participants were more likely to agree that the words strong, brave, confident, and winner (identity meanings for the survivor identity) described them rather than hurt, helpless, scared, and sad (identity meanings for the victim identity). Overall, the victim identity was also less salient than the survivor identity. Participants were more likely to discuss being a survivor with new people and close friends and family (M=1.44, SD=1.02) than to discuss being a victim (M=0.92, SD=0.94).

(Table 2.2 about here)

Participants were also less committed to the victim identity than the survivor identity; they agreed more strongly that there are people they would miss if exiting the role (M=1.37, SD=1.11) than for the victim identity (M=0.68, SD=0.69). This is not surprising, as the victim identity is more stigmatized than the survivor, and people are encouraged to espouse the latter identity over the former—particularly in feminist social movements in which participants may have gained these ties (Dunn 2005).

Post-Traumatic Stress

Next, I examine the relationship between identity theory measures (salience, commitment, and identity meanings) and victim/survivor acknowledgment on post-
traumatic stress (Table 2.3). Previous findings are generally mixed in the literature regarding the relationship between acknowledgment of rape or as a “victim of rape” in relation to psychological distress, and researchers have yet to explore the effect of acknowledgment as a survivor. In these tests, rather than focusing on the labeling of a crime or behavior, I determine how identity explains variation in post-traumatic stress among individuals who have been sexually assaulted.

(Table 2.3 about here)

Hypotheses 1(a) and 1(b) were supported, as there is a positive relationship between both victim salience and victim meanings with post-traumatic stress (Model 2, Table 2.3). Victim identity salience (coef.=0.42, p<.05) and victim identity meanings (coef.=0.52, p<.01) are positively associated with higher levels of post-traumatic stress, and these effects remain significant when entering acknowledgment into the equation (Model 3). Increased agreement with the statement “I am a victim” (victim acknowledgment) is also positively associated with post-traumatic stress (coef.=0.13, p<.01) (Hypothesis 1[c]). Hypothesis 1(d) was also supported: commitment to the victim identity is negatively associated with post-traumatic stress (coef.=-0.53, p<.05).

Hypothesis 2 predicted a negative relationship between survivor identity measures and survivor acknowledgment. Hypotheses 2(a), 2(b), and 2(d) were not supported, as there were no significant relationships between post-traumatic stress and survivor salience, survivor commitment, or survivor acknowledgment. Hypothesis 2(c), regarding survivor identity meanings, was not only unconfirmed, but the opposite was found: there is a positive relationship between survivor identity meanings and post-
traumatic stress (coef.=0.40, p<.05). This is contrary to the cancer identity literature, which finds “survivors” report more positive coping and less distress.

**Depression**

In the next section, I estimate a series of regressions to determine the effects of victim and survivor identity measures and acknowledgment on non-contextual measures of well-being and mental health, starting with depression. As demonstrated in Table 2.4, assault characteristics, acknowledgment, and identity theory variables had minimal utility in predicting depression. Acknowledgment as a victim or a survivor and assault characteristics were not significantly related to depression. Salience, and commitment—for either identity—were also unrelated to depression.

(Table 2.4 about here)

However, rating oneself higher on victim identity meanings—as hurt, helpless, scared, sad—is associated with an increase in CES-Depression scores, supporting Hypothesis 3(b) (coef.=0.95, p<.001). This is the only significant predictor in the final model, explaining nearly half of the total variance explained (Adj. $R^2=0.46$). There was no support for survivor hypotheses with depression (Hypothesis 4).

**Self-Esteem**

Self-esteem findings parallel those for depression, though there are a few important distinctions (Table 2.5). In Hypothesis 5, I examine the relationships between self-esteem and victim identity measures and acknowledgment. In support of Hypothesis 5(b), victim identity meanings are negatively associated with self-esteem (coef.=-0.51, p<.01), though victim salience, commitment, and acknowledgment had no effect. There was also no relationship between self-esteem and survivor identity commitment or survivor
acknowledgment, although having a more “survivor”-like identity (identity meanings) is associated with higher levels of self-esteem, supporting Hypothesis 6(c) (coef.=0.38, p<.05).

(Table 2.5 about here)

There was also a counterintuitive finding regarding the survivor identity, albeit a marginally significant one. Survivor identity salience is negatively associated with self-esteem (coef.=-0.21, p<.10). This is contrary to Hypothesis 6(a) and the current literature. Survivors are “supposed to” be optimistic and positive; here, instead, women who discuss being a survivor more often with family, friends, and new people report lower levels of self-esteem.

**Patterns among LGBTQA participants**

Despite their heightened risk of both sexual victimization and poor mental health, no study has examined how LGBTQA individuals acknowledge sexual assault experiences (Cantor et al. 2015, Descamps et al. 2000). In the full sample of this study, LGBTQA participants were 350 percent more likely to have experienced childhood sexual abuse and 160 percent more likely to be sexually assaulted since age 14 than heterosexual, cisgender women (results available upon request). In addition to this increased prevalence, LGBTQA participants were three times more likely to see themselves as victims and reported heightened levels of post-traumatic stress and depression and lower self-esteem while controlling for assault characteristics.

The influence of being lesbian, bisexual, transgender, or asexual/agender on mental health can be partially explained by identity and acknowledgment measures included in this study. Almost 40 percent of the effect of LGBTQ status on post-
traumatic stress is explained by their increased likelihood of acknowledging as a victim ($z=3.36$, $p<.001$). LGBTQA participants have higher victim identity meaning scores and lower survivor identity scores, which explains up to 86 percent of the relationship between sexual minority status and depression and 84 percent of its relationship with self-esteem ($p<.001$). These findings highlight the need to examine both social identities and victim/survivor identities in addition to acknowledgment when explaining variation in mental health outcomes.

**DISCUSSION**

Understanding the role that labeling sexual assault plays in women’s psychological and behavioral outcomes has been a focus of rape scholars for thirty years (Wilson and Miller 2015). During that time, there has been growing evidence that acknowledgment as a victim of rape may have positive behavioral consequences, like reporting and disclosure, yet it is also associated with increased psychological stress and stigma. However, results are mixed, which may be partially due to discrepant and overlapping conceptualizations of acknowledged and unacknowledged rape across studies and the dichotomization of participants, which precludes gradients in response. Moreover, despite the popularity of naming victims of incest and sexual assault “survivors” and the increasing application of a discourse of survivorhood in activism, research, and practice (Dunn 2005), this study is the first to gauge how both identities, measured on two separate continua, relate to well-being.

The current study draws from the theoretical and methodological approach of identity theory, which elucidates the relationship between the cultural meaning of identities and psychological distress (e.g., Burke and Reitzes 1981, Burke and Tully
Importantly, however, identity theory studies of mental health typically test hypotheses derived from the control mechanism of the theory. When identities are disrupted or there is conflict between one’s actual self-views with their ideal or desired selves, individuals experience psychosocial stress, depression, and anxiety (e.g., Burke 1991, Cast and Cantwell 2007, Large and Marcussen 2003). The current study diverges from this approach. Instead, I hypothesize and find some support for the notion that salience, commitment, and identity meanings have a direct relationship with mental health. In other words, an identity need not be disrupted to lead to psychological distress; simply having a stigmatized identity can impair well-being.

Acknowledgment, Identity, and Distressed (?) Victims

The current findings support studies that find greater psychological distress among “victims of rape,” as well as findings from two parallel literatures: the self-labeling of persons with cancer, and the association of “victim” with weakness and low worth in American cultural discourse (e.g., Bellizzi and Blank 2007, Park et al. 2009, Dunn 2005). I find women who agree with the statement “I am a victim” in relation to their assault do report higher levels of post-traumatic stress. I also demonstrate the utility of using important concepts from identity theory—salience, commitment, and identity meanings—to directly explain mental health. Specifically, participants with a more salient victim identity reported higher rates of post-traumatic stress. For both victim acknowledgment and salience, findings suggest that even while controlling for the level of violence or resistance during a sexual assault, self-labeling and frequent enactment of the victim identity has a longstanding impact on distress. Assaults occurred, on average, two years prior to data collection, and the victim identity still leads to intrusion,
avoidance, and hyperarousal—the three underlying dimensions of post-traumatic stress (Christianson and Marren 2012).

I also confirm the prediction that stronger commitment to the victim identity—having more social ties connected to enactment of that identity—is associated with lower levels of post-traumatic stress. While this may seem unexpected, as the victim identity is a stigmatized identity, participants who had greater commitment to the victim identity would “miss a lot of people” if they were no longer a victim. Due to the limitations of the survey, it is impossible to determine exactly who those “people” are. Future research should examine how interaction with institutions and organizations—key aspects of commitment to identities—might lead to embracing the victim identity while simultaneously suppressing psychological distress and “moving on.” Because feminist and therapist discourses attempt to challenge victim blaming attitudes, and religion is a source of meaning making and coping with trauma, these groups would be a reasonable place to start (Ahrens et al. 2009, Dunn 2005, Lamb 1999, Park 2005).

**Disruption of Positive Identities and Survivor Salience**

Although acknowledgment as a survivor in the context of a specific sexual assault does not promote well-being, it does not impede coping. When only considering measures of acknowledgment, this largely justifies the more widespread and frequent usage of the term “survivor” over “victim” (Dunn 2005). However, things become more complicated when examining more general aspects of identity garnered from Stryker (1980) and Burke and colleagues (e.g., Burke and Reitzes 1991, Burke and Stets 2009, Burke and Tully 1977). First, having a stronger survivor identity—rating oneself higher on the related meanings of strong, brave, confident and winner—is actually positively associated
with post-traumatic stress. Even though “survivor” is a strong, positively evaluated identity, culturally, one has still *survived* a distressing event. It is possible that, for those who see themselves as survivors, the identity disruption produced by victimization (which is defined by injury and helplessness) leads to heightened post-traumatic stress. This proposition is untestable with these cross-sectional data, but it is consistent with identity theory, in which identity disruption and non-verification lead to stress (Burke 1991, 1996).

Second, survivor salience is negatively associated with self-esteem. These findings are contrary to the cancer identity literature and expectations drawn from victim/survivor discourses—a survivor is supposed to have positive self-attitudes and not feel like a failure. It could be that surviving or overcoming a medical diagnosis is seen as somewhat beyond a person’s control and thus perceived more positively, while there may be lingering actual and perceived blame for women who have survived sexual assault. The discourse of culpability in violence against women is so pervasive that even individuals who volunteer to support victimized women attribute some blame to their clients (Thapar-Bjorkert and Morgan 2010). When the survivor identity is higher in the salience hierarchy, it is enacted more frequently across associations. It may be that contentious conversations and identity challenges negatively affect one’s ability to experience the self as worthy and competent. Using an identity theory approach complicates cultural understandings of “strong survivors” and the concept of salience itself.

The positive relationship between survivor identity measures, post-traumatic stress, and impaired self-esteem may also reflect conflicts between self-views, the
appraisals of others, and who individuals feel they should or want to be. Women are encouraged to see themselves as “survivors” even if this is inconsistent with their negative emotions and experiences (Goffman 1963, Hozman 2005, Klawiter 1999, Thomas-MacLean 2005). In other words, though someone may reveal her or his self as a survivor in the public eye, this may conflict with a private, demoralized self. Marcussen (2006) finds discrepancies between how a person thinks others see her and how she feels she should be and who she aspires to be are associated with depression and lowered self-esteem, using the same measures used in the current study. It could be that not only discrepancies between reflected appraisals and obligatory or aspirational identities, but also discrepancies between actual selves and these other views have a negative impact on individuals’ self-worth and efficacy. By examining self-perceptions and reflected appraisals (“myself as I really am” versus “myself as others see me”) along with “ought to” or “ideal” selves, future research could better reveal how identity conflict influences outcomes of sexual assault (Kroska and Harkness 2008, Large and Marcussen 2000, Link and Phelan 2013).

**Identity Meanings, Depression, and Self-Esteem**

Although studying a stigmatized experience may complicate understandings of Stryker’s (1968, 1980) identity theory concepts—victim commitment and survivor salience—identity meanings contribute considerable explanation of variation in depression and self-esteem. This study is a departure from typical identity theory research that typically examines positive, structural role identities (mother, student, worker, and the like). However, more recent studies have expanded the theory beyond role identities to encompass person identities, such as Stets and Carter’s (2011) work on the moral
identity. Their research and the current study are reminders that the complex, multifaceted self also contains identities without clear alters or social structural locations which, nonetheless, can be measured in comparable ways.

Seeing oneself in more victim-like terms is associated with greater depression and lower self-esteem, while seeing oneself in more survivor-like terms is associated with greater self-esteem. Again, this is not a surprising finding, given the cultural conceptions of these two identities. However, the current study establishes the utility of identity theory for testing direct effects of identity meanings on psychological well-being, while the majority of studies focus on distress as the result of identity disruption. In other words, the content of the self matters in and of itself; simply seeing oneself in negative, victim-like terms is enough to impair mental health. Particularly because acknowledgment has no effect on depression or self-esteem, this suggests that rape researchers should consider broader, more general measures of identity when trying to explain variation in psychological outcomes among victim/survivors.

This study also contributes to the acknowledgment literature by examining the role that sexual orientation plays in psychological distress produced by sexual assault and mental health more generally. LGBTQA participants were more likely to be victimized (as children and since starting college), see themselves as victims, and to report higher levels of post-traumatic stress, depression, and lower self-esteem than cisgender, heterosexual participants. It is unknown whether this distress may have been exacerbated by context. For instance, assaults that are committed in the context of harassment, a hate crime, or corrective rape are known to elevate distress (Descamps et al. 2000). A large-scale, more diverse sample is necessary to examine how social statuses—such as gender,
sexual, racial, and religious identities—combine with victim/survivor identities to affect mental health, particularly among high-risk LGBTQA individuals and non-college students.
CHAPTER 3

SEXUAL ASSAULT AND IDENTITY DEFLECTION:
A SOCIAL PSYCHOLOGICAL APPROACH TO POST-TRAUMATIC STRESS

Every two minutes, a woman in the United States is sexually assaulted, for a total of 207,754 a year (Tjaden and Thoennes 1998). It has been estimated that 1 in 6 women will experience attempted or completed rape in their lifetime, meaning that over 17 million American women have been victimized (NIJ and CDC 2010). The experience of rape has many physical, psychological, and interpersonal consequences. These include injury (Tjaden and Thoennes 2000), unwanted pregnancy (Holmes et al. 1996), anxiety and depression (Steketee and Foa 1987, Shapiro and Schwarz 1997), post-traumatic stress (Kilpatrick et al. 1989, Petrak and Hedge 2002), substance abuse (Epstein et al. 1998, Frank and Anderson 1987), and relationship problems (Miller, Williams, and Bernstein 1982). While a multitude of group, behavioral, and exposure therapies have been shown to improve the adjustment of victim/survivors, many symptoms and health issues persist for years (e.g., Foa et al. 1995, 1999, Kilpatrick, Resnick, and Veronen 1981, Weaver and Clum 1995).

Due to the seriousness of this issue for the mental and physical health and well-being of women, research on the consequences of sexual violence is a cross-disciplinary endeavor, with contributing scholars trained in psychology, criminology, family studies, social psychology, sociology, feminist theory, and beyond. In order to present a holistic yet theoretically informed discussion, this paper will integrate neurobiological,
psychological, and social psychological approaches to trauma. I begin by summarizing research on immediate, neurobiological responses to rape, with a focus on memory and post-traumatic stress. I use these studies and affect control theory (Heise 1977, 1979, 2007, MacKinnon 1994, Smith-Lovin and Heise 1988), a formal social psychological theory that bridges understandings of culture, perception, and emotion, to build and test a series of hypotheses about the effects of sexual trauma on identity and post-traumatic stress. In a non-clinical sample of college women and transgender and agender students, I estimate a series of regressions to test the effects of injury and resistance, identity disruption (termed *identity deflection*), and self-identification as a victim or a survivor on post-traumatic stress. I conclude by discussing how the lenses of identity and social psychology can benefit research on and treatment of trauma.

**LITERATURE REVIEW**

**Trauma and Memory Fragmentation**

In her presentation to criminologists, sociologists, and law enforcement agencies, Rebecca Campbell (2012) demonstrated how the brain and body responds to sexual trauma. When the body experiences trauma, the amygdala detects a threat and signals the hypothalamic-pituitary-adrenal (HPA) axis to flood hormones to the adrenal glands (Banks and Kohn-Wood 2002). The amygdala, part of the mammalian brain, responds because this information is emotion-laden and threatening. These hormones that are released include cortisol that provides energy to fight or flee from an attacker; opioids that prevent pain; oxytocin which promotes good feelings, and catecholamines that instigate a flight, fight, or freeze response. This “freeze” response, known as tonic immobility, is an involuntary response to fear-inducing stimuli that occurs in about 37
percent of victims of rape (Fusé et al. 2007, Galliano et al. 1993, Heidt et al. 2005). This high rate is not surprising, as tonic immobility occurs in nonhuman animals when there is a fear of bodily harm, threat to safety, and perceived physical restraint—very common aspects of rape (Bovin et al. 2008). Tonic mobility is crucial to the general trauma literature, as it has been found to increase post-traumatic stress symptomatology, re-experiencing of symptoms, fear, numbness, and avoidance (Bovin et al. 2008).

In addition to instigating a fight or flight response to threat and potentially tonic immobility, the hormones released during sexual trauma have negative effects on victim/survivors’ brains and behavior. Primarily, as Campbell (2012) explains, there is a crash in energy and positive feelings when cortisol and oxytocin drop off, while opioids create flat affect. The hippocampus, which is responsible for encoding experiences into memories, is very sensitive to these stress hormones. When they are present at heightened levels in the body, memories of traumatic experiences become hard to encode and difficult to retrieve (Hauer et al. 2009, Koss et al. 1995, 1996, Rubin, Boals, and Bernsten 2008). The victim is confused about what happened, dissociates, and is unable to fully recall the order and details of events. While this confusion dissipates over time and accurate memories can be fully reorganized and recalled with time, first responders might perceive this confusion as dishonesty. As one of Campbell’s (2012) interviewees stated, “They simply can’t seem to get their stories straight.” If first responders are patient, it is likely that victims will be able to sort out their memories, but unfortunately, memory fragmentation is exacerbated by alcohol use. Given the fact that nearly half of sexual assaults occur when the perpetrator, victim, or both are under the influence of alcohol (Abbey, Ross, and McDuffie 1994), it is possible that memories may never be fully
recalled. How events are encoded into memory, and how these frames influence identity and distress, is a core focus of the current study.

**Post-Traumatic Stress and Dissociation**

One of the most common consequences of rape that can be immediate but linger for years is post-traumatic stress (Astin, Lawrence, and Foy 1993). Almost 95 percent of victims of rape meet the criteria for post-traumatic stress disorder (PTSD) within two weeks of their assault, though symptoms mostly dissipate with time (Rothbaum et al. 1992). PTSD involves intrusive thoughts, nightmares and sleep disturbances, depression, mood or anxiety disorders, and avoidance. From an evolutionary psychology perspective, post-traumatic stress can be understood as an adaptive response to threat. Avoidance, aggressive defense, immobility and over-activation of attention and fear responses are seen in most mammals and can increase survival. However, when experienced for a prolonged time period, these symptoms become dysfunctional. Weaver and Clum (1995), in their meta-analysis of the mental health consequences of trauma, explain that when coping mechanisms (like PTSD) become generalized, they are exhibited in dissociative and borderline personality disorders—the “fiber of a ‘pathology’ after acute crisis symptomatology has dissipated” (p. 134).

Dissociative disorders were the most common disorders among trauma survivors in Weaver and Clum’s (1995) meta-analysis, the majority of samples consisting of childhood and adult sexual violence victims (e.g., Briere et al. 1997, Ullman and Brecklin 2003). Dissociative disorders consist of amnesia, depersonalization, derealization, identity confusion, and identity alteration. Weaver and Clum (1995) posit that this likely results from perceived life threat and controllability among victims, and they associate
these symptoms with the self-violation and intrusion felt by victims (Bard 1979).

Although the current study does not directly observe dissociation, in the following section, I posit that the violent and fear-inducing nature of sexual assault disrupts one’s self to the point of deep confusion and identity alteration. If this disruption cannot be resolved, or is resolved in a way that further damages one’s identity, post-traumatic stress—intrusive thoughts, hyperarousal, and avoidance—persist.

AN INTEGRATION OF TRAUMA PERSPECTIVES AND AFFECT CONTROL THEORY

Historically, the study of trauma has waxed and waned since its psychoanalytic “discovery” in women in the 19th century (Herman 1997). Freud, in his early work, observed that nearly all of his severely distressed (or “hysterical”) patients had one thing in common: childhood sexual abuse. Herman (1997) documents that before this relationship was rediscovered among rape trauma syndrome researchers during the women’s liberation movement in the 1970’s, similar symptoms were observed among men returning from war. For both groups, intensified and situationally inappropriate emotion, numbness, disability, and dissociation were produced by the parallel experiences of private abuse and political atrocity. Although childhood abuse and war are common in objective reality (a point abandoned by Freud due to anti-feminist professional pressure and the threat of ostracism), they are so disturbing that they are considered outside the realm of possibility. This involves the interruption of a person’s lived experience as civilian, child, and the like. Identities are challenged in slight ways on a daily basis, but when forced into a scenario in which the self is powerless, where captivity and/or death appear imminent, a person is shocked into an awareness that he or
she is not who they thought they were (Herman 1997). Furthermore, the systematic, well-defined world they know becomes disorganized and strange. In the following section, I describe how memory fragmentation, dissociation, and post-traumatic stress can be understood through the social psychological lens of identity.

**Identity Disruption**

To cognitive psychologists, “unusual, unexpected, and extremely emotional events” are conceptualized as a violation of schemata (Berntsen and Rubin 2006, p. 417). Because trauma challenges self-narratives, it can be understood in the context of identity disruption as described by social psychologists (e.g., Burke and Stets 2009, Heise 2007, MacKinnon 1994). In particular, this process is described by affect control theory (Heise 1977, 1979, 2007, MacKinnon 1994, Smith-Lovin and Heise 1988). When a person enacts an identity, there are a host of culturally agreed-upon expectations attached to how that person should behave and how he or she should be treated (Burke and Tully 1977, Heise 1977, 1979, 2007). In affect control theory, cultural expectations are measured along three dimensions, each on a scale of −4.3 to 4.3: evaluation (whether an identity is good/nice or bad/awful), potency (little/powerless or big/powerful), and activity (fast/noisy/active or slow/quiet/inactive). These *EPA dimensions*, deemed the underlying essence of cultural meaning, were established by Osgood and colleagues’ (1962) cross-cultural studies of semantic meaning. Since then, they have been validated as powerful predictors of social interaction, expectations, and emotion in dozens of studies (for a recent review, see MacKinnon and Robinson 2014).

In addition to identities, EPA dimensions are used to measure the cultural sentiments we have for behaviors, emotions, and settings (MacKinnon 1994). Thus, we
can make predictions about what kinds of acts, feelings, and places will confirm an identity and which will disrupt an identity. For instance, a citizen (1.42, 1.00, 0.52) should have discussions and transact business; a child (1.97, -1.17, 1.99) should horse around and giggle—these would be identity-confirming behaviors. When a citizen is capitulated into a situation in which he follows military directives to kill, or when a child is made the object of sexual molestation, the meanings of their identities are challenged. We can calculate exactly how much these identities would be challenged using affect control theory’s impression formation equations. These equations calculate the distance between the cultural sentiments (EPA profile) of identities and how our impressions change due to the event in an actor, behavior, object (ABO) event. The result of this equation is termed deflection, and the levels of deflection are categorized due to their magnitude. For instance, a citizen murdering a citizen and a child being molested produces deflections of 25.5 and 28.4, respectively—deflection scores that reflect an impossible event (Boyle and McKinzie 2015, Heise 2013). Mathematically, these deflection scores are nearly off the scale; conceptually, such events are outside the realm of possibility.

I argue that deflection—the discrepancy between cultural understandings of identities enacted and the impressions produced by a disturbing experience—either produces or coincides with symptoms recognized as post-traumatic stress disorder. The distressed person vacillates between avoidance of the disturbing memory and persistent ruminating thoughts, the mind’s attempt to reframe the event in order to integrate the memory into a coherent life story. Because deflection is confusing and stressful, it is not surprising that individuals will attempt to resolve it yet also avoid it in order to make
better sense of themselves and their worlds. Based on these proposed parallels between post-traumatic stress and affect control theory’s concept of deflection, I expect the following:

Hypothesis 1: There is a direct, positive relationship between identity deflection and the post-traumatic stress produced by a non-consensual sexual experience.

The more the cultural sentiments of an identity diverges from the transient impressions produced by the experience, the more likely a person is to experience hyperarousal, intrusion, and avoidance.

Integration of Traumatic Memories

Traumatic experiences are so beyond the realm of possibility that it is common for individuals to have “out of body experiences” during the event and in one’s memory (dissociation), and to have trouble cognitively and emotionally connecting the experience to the self (constriction and numbing) (Herman 1997). There are numerous neurobiological explanations for these reactions. As described previously, trauma and fear of death flood the body with evolutionarily adaptive, self-protective neurochemicals that impair memory and physical and emotional feeling while deterring integration of the memory (e.g., Campbell 2012). Scholars have traditionally argued that it is this lack of integration that produces post-traumatic stress symptomatology (e.g., Horowitz 1986, for a review see Dalgleish 2004).

Berntsen and Rubin (2006) offer an alternative view. They highlight the fact that the interruption of schemata can actually enhance memory due to its uniqueness and strong affective quality. They build upon research in availability heuristics that
demonstrates “rare, surprising and intensely emotional” events (p. 419) are actually highly accessible (e.g., Brown and Kulik 1977, Rubin and Kozin 1984). They argue that trauma produces hyperarousal, avoidance, and intrusion not because of a lack of integration but because the traumatic memory becomes an anchor, a “cognitive reference point for the organization of autobiographical knowledge” (p. 418, Ehlers and Clark 2000). Berntsen and Rubin developed the Centrality of Event Scale (2006) that contains items such as “This event has become a reference point for the way I understand myself and the world” and “I feel that this event has become part of my identity” (p. 418).

Indeed, the authors find that when a traumatic event becomes central to a person’s identity (i.e., it is integrated into the life story), the person scores higher on measures of post-traumatic stress, dissociation, and anxiety. In sum, Berntsen and Rubin (2006) offer a theoretically sound argument and empirical evidence that links trauma, identity, and post-traumatic stress.

The arguments that a lack of integration of trauma into the life story and the centrality of that memory to the autobiography produce psychological distress are in conflict yet both have been supported. Berntsen and Rubin’s (2006) discussion of turning points (Pillemer 2001) and personal identity offers a glimpse at how trauma could be central to a person’s identity yet not necessarily produce negative self-attributions and impair well-being. According to the authors, traumatic events are seen as rare and unexpected; when they occur, they disrupt the typical life course pattern (Berntsen and Rubin 2004). If a traumatic event were to be seen as a major turning point in life, it is likely that it would become central to a person’s identity in a way that violates cultural norms (p. 420). If the person takes on the “trauma victim” identity, then, she is likely to
experience “isolation and stigmatization” (p. 420). While this is certainly supported in studies of sexual assault that find women who endorse the “victim of rape” label experience heightened stigma, depression, and PTSD, both of these bodies of literature negate the fact that a person might, instead, adopt the identity of a strong, willful survivor (e.g., Convery 2006, Hockett and Saucier 2015, Littleton et al. 2007). In fact, in Chapter 2 of this dissertation, participants were more likely to adopt a survivor than a victim identity. If a traumatic memory were to become integrated into a person’s life story, but they cast themselves as a survivor that overcame rather than a victim of circumstance, it is possible that integration would not produce distress. This argument warrants examination of the various ways a person integrates trauma into their sense of self.

**Re-identification and Distress**

In affect control theory, unusual and disturbing events—like sexual trauma—produce disturbingly high levels of deflection (Boyle and McKinzie 2015, Heise 2007, MacKinnon 1994). According to the theory, such deflection is distressing and disruptive to a person’s self- and world meaning. In order to decrease deflection, a person will redefine an element of the event in order to for it to make more sense. Although it has been argued that a redefinition of behavior is the most common approach to deflection reduction (Nelson 2006), Boyle and McKinzie (2015) find that, specifically in the context of sexual victimization, it is common for individuals to re-identify the perpetrator’s or their own identities to relieve negative emotion and restore order to their worldviews. For instance, using our previous example, a child who is molested experiences impossible levels of deflection (28.5). Because this is not something that should happen to a child, for this traumatic experience to make sense, the theory predicts that the child might see
herself as foolish or naïve, as a malcontent or psychotic—concepts that are similar to the labels used in rape victims’ narratives in Boyle and McKinzie’s (2015) study. Because re-identification is more common in highly deflecting events (MacKinnon 1994), I predict:

Hypothesis 2: There is a direct and positive relationship between identity deflection and re-identification as a “victim.”

I also expect that the adoption of the victim identity will have consequences for an individuals’ post-traumatic stress levels. As already stated, I expect there to be a direct relationship between identity deflection and post-traumatic stress, given the destabilizing and distressing nature of deflection (Hypothesis 1). If this deflection is “resolved” through the re-identification of self as a “victim” in that event (i.e., it makes more sense for a “victim” to be assaulted than a “girlfriend” or “friend” [Boyle and McKinzie 2015]), the individual will still experience increased post-traumatic stress. Given the stigmatization of the “victim” in U.S. culture (Dunn 2010), and the fact that victim is an identity with very low potency (powerfulness) ratings ($E=-0.16$, $P=-2.57$, $A=-1.50$), I expect:

Hypothesis 3: There is a positive relationship between re-identification as a victim and post-traumatic stress symptoms.

Furthermore, I expect that labeling oneself a victim will explain the relationship between identity deflection and distress:

Hypothesis 4: The relationship between identity deflection and post-traumatic stress is mediated by re-identification as a victim.

Although affect control theory offers insight into how individuals respond to events, it allows for the flexibility and agency of human beings. Simulations that utilize
ACT’s equations and cultural sentiments offer a variety of potential outcomes rather than definitive predictions. In particular, recent mathematical developments in affect control theory utilize Bayesian probability theory to capture the dynamic fluctuations and adjustments that are made during interaction (Schroder, Hoey, and Rogers forthcoming). Thus, it is reasonable to expect that not all women will re-identify as a victim due to a non-consensual sexual experience. This notion is supported by three decades of research that demonstrates the various labels women import to describe their experiences and their resistance to the term “victim of rape” (Harned 2005, see Wilson and Miller 2015 for a review).

Due to the fact that college women are coming forward in public forums to discuss (and combat) sexual victimization in record numbers and the cultural emphasis on naming oneself a survivor rather than a victim (Dunn 2005, Leisenring 2006), it is possible that women might instead come to define themselves as survivors who overcame their trauma. A survivor who overcomes is, culturally, a viable discourse a woman can draw on to make sense of a deflecting victimization. Thus, I predict:

Hypothesis 5: There is a positive relationship between identity deflection and re-identification as a “survivor.”

Finally, perceptions of worth and power are evidenced by the EPA profile of a survivor (E=2.79, P=2.80, A=0.66). Due to the more positive sentiments held for survivors in society, and the fact that feelings of powerlessness are key to post-traumatic stress, I expect:

Hypothesis 6: There is no relationship between re-identification as a survivor and post-traumatic stress.
In other words, while high levels of deflection may lead one to re-identify as a survivor, this label, due to its strong and positive evaluation, will not have the deleterious psychological effect that self-identifying as a victim does. By examining these relationships, the current study will delineate if and in what ways identity and its disruption leads to psychological distress, while arguing that how the person defines herself in the context of the assault partially explains this relationship.

METHODS

Sample

Undergraduate students at a large, public university in the Southeastern United States were recruited for participation in the “College Identity Study” via email. Only participants identifying as women, transgender, or agender are included in this study. Participants were automatically entered into a drawing for one of three $50 Visa check cards, though students could enter the lottery via email without participation. Potential participants were provided with a summary of the study and a link to the informational letter and survey hosted on Qualtrics. Approximately 9,975 non-men participants opened the email, and 569 women and 15 transgender or agender participants completed the survey.

Participants were screened for victimization history using the Sexual Experiences Survey (Koss and Gidycz 1985), which asks behaviorally specific questions about victimization due to coercion, threats, incapacitation, and physical force since age 14. Those who indicated an assault history were asked to respond to assault and post-assault questions in regard to their most recent non-consensual sexual experience. Of the 569 participants, 27.4 percent had experienced unwanted sexual activity due to sexual
coercion, incapacitation, threats, or physical force since age 14. This includes assaults that involved forced fondling and kissing, attempted or completed vaginal penetration, penetration with an object, and oral or anal penetration. After listwise deletion, 125 participants remain for analyses in this study.

**Post-Traumatic Stress**

Participants completed the revised Impact of Events Scale (Christianson and Marren 2012), which is a measure of post-traumatic stress. Participants were asked to indicate how much they were distressed or bothered by a list of difficulties in the past seven days in relation to the incident they just described and responses ranged from not at all (1) to extremely (5). Items include the subscales of intrusion (e.g., “other things kept making me think about it”), avoidance (e.g., “I stayed away from reminders of it”), and hyperarousal (“I was jumpy and easily startled”). These items were weighted by their factor loadings and used to create this measure of *post-traumatic stress* (alpha=0.95).

**Independent Variables**

*Identity deflection.* Typically, deflection is measured at the event level—it is the distance between the cultural sentiments about the actor, behavior, and object and the transient impressions produced by the act. However, here I focus on *identity*—how a person’s identity is challenged and disrupted by a non-consensual sexual experience. In other words, how her transient impressions about herself differ from the cultural sentiments of the identity she was enacting in the event.

Several steps were taken to calculate identity deflection. After indicating that they had at least one non-consensual sexual experience since age 14, participants were asked to complete a series of follow-up questions about their most recent sexual assault. One of
these questions asked what their relationship was to the perpetrator at the time of the assault. The available responses were boyfriend or girlfriend (30%), ex-boyfriend or ex-girlfriend (8%), date (9%), friend (18%), family member (16%), family friend (6%), acquaintance (5%), classmate (6%), co-worker (2%), employer (2%), and unknown person (0%). First, the EPA profiles (cultural sentiments) were gathered for the perpetrators’ counter-roles, the identity the participant was enacting at the time (e.g., “girlfriend” if she indicated the perpetrator was her boyfriend, “friend” if she said the perpetrator was a “friend”)². These were gathered from the Georgia Dictionary, an aggregate of EPA ratings collected from undergraduate students at the University of Georgia from 2010 to 2014. These are listed in Table 3.1.

(Table 3.1 about here)

After responding to assault characteristic questions, participants were asked: “What kind of person did this situation make you feel like?” They were provided with sliding scales to rate themselves on the three dimensions of fundamental sentiments: evaluation (good/nice to bad/awful), potency (little/powerless to big/powerful), and

² The EPA profile for “date” was obtained from the Indiana Dictionary (2002-2004) because this term was not available in the new Georgia Dictionary. Two other alterations were made. Because the options “family member” and “family friend” do not indicate a specific identity, the terms “niece” and “young friend” are used. While this is not ideal, removal of participants who were assaulted by a family member or family friend would leave out nearly 22 percent of the sample. Not only does this hinder my ability to conduct analyses, it makes the sample less representative of women’s non-consensual experiences.
activity (fast/noisy/active to slow/quiet/inactive). Figure 3.1 show a screenshot of the scale that was used to collect transient impressions, which were modeled after the scales used to collect EPA ratings in for the Georgia Dictionary.

Figure 3.1: Slider used to collect transient impressions

In the second step of calculating identity deflection, the distance between a participant’s identity in the event (girlfriend, date, classmate, etc.) and the transient impressions produced by the event were calculated. The equation used to calculate identity deflection is below, drawn from the deflection equations traditionally used in affect control theory (Heise and Smith-Lovin 1981, Smith-Lovin 1987). Here, $A_e$ is the cultural evaluation profile for the identity enacted and $A_{e1}$ is the transient evaluation impression produced by the event:

$$
\text{Identity deflection} = (A_e - A_{e1})^2 + (A_p - A_{p1})^2 + (A_a - A_{a1})^2
$$

This variable, identity deflection (M=41.86), is a measure of how participants’ self-feelings during the event conflict with the cultural sentiments of the identities they had expected to enact.

**Victim and survivor re-identification.** After questions about transient impressions, respondents were asked to indicate their level of agreement with the following statements regarding this incident: “I am a victim” and “I am a survivor.”
Responses ranged from one (strongly disagree) to eight (strongly agree) and the order of these statements was randomized using Qualtrics’ software.

**Assault characteristics.** A host of assault characteristic measures were also collected due to their association with the labeling of sexual assault and post-traumatic stress. Respondents were asked whether the perpetrator used *physical force*, whether there was *vaginal penetration*, and whether they were *injured* or used *physical resistance*. Variables were also included indicating whether the participant was *incapacitated* (due to alcohol and/or drugs) and whether they had engaged in sexual activity with an adult before age 14, a measure of *childhood sexual abuse*. These are dichotomous variables and coded one if they answered affirmatively and zero otherwise. Participants were asked how long ago their assault occurred and were provided with an open-ended space. Their responses, provided in a mix of weeks, months, and years, were converted into one variable, *number of months*.

**Analytic Strategy**

In this study, I first calculate the identity deflection value for each participant using the equations and EPA ratings described above. Then, I use OLS regression to predict levels of identity deflection. Next, I begin testing my hypotheses by predicting re-identification as a victim and as a survivor using assault characteristics, childhood sexual abuse, and identity deflection. Because victim and survivor identification are ordinal variables, when testing hypotheses about whether or not a participant identifies as either identity, ordinal logistic regression analyses are used. These tests produce odds ratios, which are exponentiated beta coefficients. An odds ratio greater than one indicates an increase in the odds of that independent variable affecting the dependent variable, and an odds ratio
less than one indicates a decrease in the odds of that independent variable affecting the dependent variable. Next, because post-traumatic stress is a continuous outcome variable, I use OLS regression to test the effects of assault characteristics, childhood sexual abuse, identity deflection, and re-identification on levels of post-traumatic stress symptoms. I also conduct a series of Sobel-Goodman tests in order to test for significant mediation effects.

RESULTS

The non-consensual experiences of participants in this study reflect typical patterns in college samples (Table 3.2). Most assaults involved vaginal penetration with a penis, about a third of perpetrators used force, and half of participants engaged in physical resistance strategies (e.g., pushing away, hitting). Less than a fifth of participants (17%) were injured during the assault and half were under the influence of alcohol and/or drugs (i.e., passed out, unaware of what was happening, or unable to stop it). The average assault occurred a little less than two years prior to data collection, and nine percent reported engaging in sexual activity with an adult before age 14. Participants were slightly more likely to agree with the statement “I am a survivor” (M=4.62, SD=2.54) regarding the incident than “I am a victim” (M=4.01, SD=2.45), two separate continuous measures.

(Table 3.2 about here)

Next, I examine characteristics that are associated with identity deflection, which is the distance between the evaluation, potency, and activity ratings for the identity enacted during the incident (e.g., girlfriend, friend) and how the incident made the participant feel about herself (transient impressions). On average, participants felt quite
bad/awful (E=-2.17), small/powerless (P=-2.40), and slow/quiet/inactive (A=-1.84). The mean identity deflection in this sample is 46.08 (SD=25.19). To put this in perspective, an event that produces deflection that is higher than about 22 is considered an impossible event (Boyle and McKinzie 2015, Heise 2013). Thus, on average, assaults produced levels of deflection consistent with an impossible event, though for about 12 percent of participants, the deflection produced would be consistent with a weird or rare event, and only 5.5 percent would experience this as an expected event. This is consistent with Boyle and McKinzie’s (2015) simulations of sexual assault, in which many events produced high levels of deflection and instigated redefinition of an aspect of the event—most often her identity or that of the perpetrator.

Table 3.3 shows that participants reported higher levels of identity disruption when the perpetrator used force (e.g., being held down or having the arms pinned down) (coef.=13.33, p<.05) and when they were injured during the incident (coef.=13.03, p<.05). These two factors, which are also associated with levels of post-traumatic stress (Ullman et al. 2007), indicate that a non-consensual sexual experience is more damaging to how a person feels about herself when there is physical violence and injury involved.

(Table 3.3 about here)

Victim and Survivor Re-identification

In the next set of analyses, I test affect control theory’s redefinition principle, which states that high levels of confusing, distressing deflection will likely be resolved through the re-identification of the individuals involved in the event (MacKinnon 1994). Individuals engage in this cognitive-affective rumination and re-labeling in order for the event to make more sense, to bring situational impressions back in line with fundamental
sentiments for identities and behaviors. Because the experience of sexual assault deeply disturbs meanings for self and others, redefinition of one of the elements of the assault is necessary to make sense of the event—that revision usually comes in the form of modifying one’s identity (Boyle and McKinzie 2015). However, it is unclear which identities women will take on in this context, as most research has focused on the “victim” identity (Hockett and Saucier 2015). Because there is also a strong, pervasive “survivor” discourse available to women (Dunn 2005), it is possible that women will adopt this latter label when resolving deflection produced by sexual assault.

(Table 3.4 about here)

As hypothesized, identity deflection is positively associated with agreement with the statement “I am a victim” in relation to the incident (Table 3.4). Higher levels of identity deflection are associated with almost a 30 percent increase in the odds of re-identification as a victim (OR=1.02, p<.01), supporting Hypothesis 2. Even though “survivor” is rated very differently from “victim” in semantic space, identity deflection also increases the odds of agreement that one is a “survivor” (OR=1.02, p<.01) (Hypothesis 5).

Because identity deflection increases the odds of re-identification as either identity, it is important to note differences in significant predictors. In terms of assault characteristics, participants were about 2.8 times more likely to define themselves as a victim and as a survivor when they were injured (OR=2.76, p<.05); 28 and 32 percent of the effect of injury on self-labeling as a victim or survivor, respectively, is explained by identity deflection (z=2.25, p<.05). Meanwhile, physical resistance increases the odds of
defining oneself as a survivor by 160 percent (p<.05), an effect that is unrelated to, and is not explained by identity deflection.

Victimization history and recency of the assault also have consequences for how a person defines herself in response to the non-consensual sexual experience. Engaging in sexual activity with an adult before age 14 makes re-identification as a victim four times more likely (OR=4.01, p<.05). This association suggests that early and/or repeat victimization may affect how a person perceives herself in relation to a consequent victimization (Hammond and Calhoun 2007). Childhood sexual abuse is not, however, associated with re-identification as a survivor, while participants who were assaulted further in the past were more likely to see themselves as survivors than those assaulted more recently (OR=1.02, p<.05).

**Post-Traumatic Stress**

Finally, I examine the effects of identity deflection and re-identification on post-traumatic stress (Table 3.5). By integrating understandings of PTSD and an affect control theory approach to identity disruption, I expect to find a positive relationship between identity deflection and post-traumatic stress (Hypothesis 1). This is supported: identity deflection is associated with an increase in post-traumatic stress (coef.=0.01, p<.05) (Model 2). Even while controlling for assault characteristics, experiencing identity deflection during a non-consensual sexual experience produces various disrupting cognitive, affective, and physiological states. In fact, identity deflection partially explains the effect of assault characteristics on post-traumatic stress. Using the Sobel-Goodman mediation test, I find that 25 percent of the total effect of injury on post-traumatic stress is explained by identity deflection (p<.05), rendering the effect of injury only marginally significant. In
other words, injury leads to post-traumatic stress in part because injury increases levels of identity deflection.

(Table 3.5 about here)

Next, in Model 3, I determine the relationship between re-identification as either a victim or survivor and post-traumatic stress. Both Hypotheses 3 and 6 are supported, as victim re-identification is associated with an increase in post-traumatic stress (coef.=0.13, p<.01) and survivor re-identification is not.

In order to further understand these relationships, I conducted a series of Sobel-Goodman mediation tests. Agreement with the statement “I am a victim” explains 30 to 43 percent of the effects of injury (z=2.89, p<.01), childhood sexual abuse (z=2.05, p<.05), and identity deflection (z=3.23, p<.001) on post-traumatic stress. Identity deflection also partially explains the effect of injury on post-traumatic stress (z=2.27, p<.05). Identity deflection, and how one re-identifies oneself due to victimization, are important predictors of whether individuals will experience intrusive thoughts, avoidance, and hyperarousal.

DISCUSSION

Although it is clear that sexual assault has multiple negative physical and mental health consequences, scholars have not fully explored social psychological processes that explain the great variation in these outcomes. In their study, Boyle and McKinzie (2015) use computer simulations and narrative data to demonstrate that non-consensual sexual experiences produce feelings of powerlessness, negative self-attributions, shock, and high levels of deflection, and they surmise that self-understandings shape how women described those experiences. In the current survey study of women, transgender, and
agender college students, deflection is explicitly measured; it is the distance between the culturally agreed-upon evaluation-potency-activity ratings for identities commonly enacted during incidents of intimate partner violence or acquaintance rape (e.g., “girlfriend,” “friend”) and the transient impressions produced by the assault (participants’ self-EPA ratings in reference to that event). Thus, this identity deflection represents the amount of disruption produced when cultural expectations for positively evaluated identities are violated by sexual aggression.

Along with previous researchers, I argue that this level of disturbance, confusion, and negative emotion will produce ongoing, deleterious mental health disturbances if left unresolved (Francis 1997, 2003). As hypothesized, identity deflection does have a positive relationship with post-traumatic stress symptoms, as an individual is on alert for recurring incidents and simultaneously ruminates on and avoids thoughts of this extreme identity challenge. In the language of trauma, these are surprising, highly emotional events that disrupt the life course and may become central to the identity, producing hyperarousal, avoidance, and intrusive thoughts (e.g., Berntsen and Rubin 2006). Like Berntsen and Rubin (2006), the current study integrates trauma and identity perspectives. However, the current study provides a formalized method of measuring the cultural meanings of identities, the self-impressions formed during a traumatic event, and how that translates into post-traumatic stress symptomatology.

Still, there is debate about whether it is the lack of integration of traumatic memories that produces PTSD, or if it is the centrality of the memory to the self that produces PTSD. The Centrality of Events scale (Berntsen and Rubin 2006) is an excellent step forward in understanding how trauma disrupts and is integrated into a person’s
identity. Nevertheless, because the items are not biased in either positive or negative directions (“I feel good that…” or “It makes me sad that…”) and a specific identity is not invoked, we cannot determine whether the trauma was integrated as a positive turning point (“I overcame and I am stronger for it”) or a downturn in the life course (“I will be forever damaged because of it”). The current study suggests that integration of the memory into the autobiography will produce psychological distress in the context of “victimhood,” but if survivorhood is added to the narrative, suffering from physiological arousal, intrusive thoughts, and a desire to avoid thoughts about the incident may not necessarily occur.

This notion is supported by the findings of this study: identity deflection produced by sexual assault is positively associated with post-traumatic stress symptomatology. This relationship, however, is explained by the fact that identity deflection increases the likelihood of identifying as a victim. Identifying as a victim explains nearly a third of the variance explained in post-traumatic stress, while identifying as a survivor has no effect. In the terms of affect control theory, if a person resolves the deflection produced by his or her sexual assault by re-identifying as a victim, distress will persist—a disempowering, stigmatized identity has become a part of the self. However, if a person re-identifies as a survivor, this may interrupt the distress pattern as the memory is integrated into the self as the story of a champion, a strong person who overcame adversity and resisted violence. Because participants who were assaulted further in the past were more likely to invoke the survivor identity, and the survivor identity is not associated with increases in post-traumatic stress, one might expect a long-term transition to a survivor identity might aid in adjustment and well-being.
Implications for Practice and Future Research

In no way does the current study imply that those who identify as victims have somehow improperly defined themselves or have fallen short in their integration of trauma. Instead, it highlights what contributes to this re-identification and in turn increases psychological distress. Identifying as a victim versus a survivor is not a moral failing; it is a response to the characteristics of an event, a reflection of biography, and a self-incorporation of cultural discourse that is inculcated by the media, activists, and everyday language. In terms of assault characteristics, injury is associated with victim re-identification while physical resistance is associated with survivor re-identification. This suggests that when a person is an object of an event, in particular, the object of violence, she or he is more likely to see themselves as victims. Meanwhile, engaging as an actor in resistance against an individual’s attempts to define the situation and overpower her, influences self-perceptions of survivorhood. It is important to keep in mind that tonic immobility is more likely among childhood sexual abuse victim/survivors and during highly violent assaults; one must be careful to not dichotomize “good survivors” who resist and “weak victims” who do not.

The connection between childhood sexual abuse (CSA) and increased PTSD due to sexual assault as an adult is well-established (see Putnam 2003 for a review). This study adds evidence that CSA also makes victim re-identification more likely, which is also associated with greater distress symptoms. Individuals enter every interaction with a somewhat stable, pre-established set of self-sentiments and expectations that shape their behavior and perception of events (MacKinnon and Heise 2010). The current study’s findings begs the question: are participants with victimization histories actually re-
identifying as a victim or is this identity already in their identity set? It could be that earlier abuses have become integrated into a more powerless, “victim”-like self; this self and aspect of her or his autobiography becomes a “cognitive anchor” that colors self-attributions and traumatic stress differently than single-incident victimizations (Berntsen and Rubin 2006). Longitudinal research on repeat victimization, an unfortunately common occurrence among CSA victim/survivors (Messman-Moore and Long 2003), and how women identify themselves in discrete events, may contribute to understanding how distress becomes integrated into the self, shapes expectations for future events, and is expounded throughout the life course. Acknowledgment that not only self-blame, but the ownership of a victim identity is more common when there is a history of abuse, is useful for practitioners.

These findings have other implications for future research and working with victim/survivors. Therapists and advocates are members of American society in which people intuitively devalue victims and praise survivors, which influences their behaviors toward and understanding of clients’ narratives (Hockett and Saucier 2015). Although using the term survivor rather than victim in therapeutic discourse is already a common practice (Dunn 2005), research on victim/survivors experiences with service providers rarely focuses on the complex and varied individual identities of clients (Hockett and Saucier 2015). Discussing the theoretically based cultural foundation and impact of using either victim or survivor language with practitioners might influence (or improve) interactions and outcomes. For instance, because physical resistance is positively associated with the survivor identity, emphasizing the ways in which a client resisted the encounter, even if they were minor acts, could bolster feelings of potency. More
importantly, given that some victim/survivors do not resist due to incapacitation, physical restriction, fear, or tonic immobility, explaining the biology of trauma may assuage self-blame and promote coping (Campbell 2012). The emphasis of the survivor identity should not be applied indiscriminately; an individual’s feelings about and perceptions of her experiences and self should be respected. However, the potentially non-disempowering effect of integrating the survivor identity into one’s multifaceted life history should be considered. In order to establish this pattern, however, longitudinal research is necessary.
CHAPTER 4

VERIFICATION OF SELF USING A MATHEMATICAL THEORY
OF CULTURE AND PSYCHOLOGICAL WELL-BEING

Depression and anxiety are two of the most common mental disorders diagnosed in the United States (Kessler et al. 2005). It has been estimated that approximately 9.2 percent and 11.1 percent of Americans have a DSM-IV diagnosable mood disorder or anxiety disorder, respectively (Chen et al. 2010). Depression results in approximately forty-four billion dollars lost a year, nationally, due to lack of productivity and healthcare costs (Druss and Rosenheck 1999), and anxiety annually costs the United States up to forty-two billion dollars due to repeat use of healthcare and hospitalization for psychiatric disorder (Greenberg et al. 1999). Depression and anxiety are associated with a number of harmful outcomes, such as smoking tobacco, alcohol abuse, unsafe sex, suicidal ideation, cardiovascular disease, and death (Cranford, Eisenberg, and Serras 2009, Denollet et al. 2009, Garlow et al. 2008, Weitzman 2004).

Levels of depression and anxiety are particularly high among college students, who are experiencing disruptive life changes, are physically separated from social support networks, and are dealing with relationship and financial stressors (Hefner and Eisenberg 2009, Mowbray et al. 2006). In 2011, 30 percent of college students reported feeling “so depressed that it was difficult to function” at some point during the academic year, and more than 10 percent reported being diagnosed or treated for depression (American College Health Association 2012). Directors of campus counseling centers
and student affairs administrators have noted a marked increase in severe psychological disorders, suicide attempts, and utilization of counseling centers (Levine and Cureton 1998). Mental health problems (in particular, anxiety and mood disorders) are associated with test anxiety, poor time management skills, and ultimately, lower retention and graduation rates—though counseling has been found to reduce these effects (e.g., Bishop and Brenneman 1986, Brackney and Karabenick 1995, Kessler et al. 1995, Kitzrow 2003, p. 171-172, Wilson, Mason, and Ewing 1997). Unfortunately, despite the increasing need for and benefits of counseling, help-seeking among college students is low, and it is unlikely that their needs will be met (Bishop and Brenneman 1986, Kitzrow 2003, Wilson, Mason, and Ewing 1997).

Self-esteem, the positive evaluation of the self and attribution of worth and competence to the individual, is a personal resource that buffers against distress and promotes positive coping with negative life experiences (e.g., Longmore and DeMaris 1997, Pearlin and Schooler 1978, Rosenberg 1979, Rosenberg et al. 1995). Individuals with higher self-esteem are more likely to persist through challenging tasks, set challenging goals for themselves, have higher expectations for success, and to be satisfied with their romantic relationships. They are also less likely to engage in unsafe sex, drink alcohol to get drunk, and to have high numbers of sexual partners (e.g., Campbell and Fairey 1985, Chandler, Lee, and Pengilly 1997, Crook, Healy, and O’Shea 1984, Erol and Orth 2014, Gullette and Lyons 2006, McNair, Carter, and Williams 1998). Not only is self-esteem associated with these behaviors of concern on college campuses, but college students with higher self-esteem exhibit a number of positive outcomes post-graduation. There is evidence that college students with higher self-esteem are more positively
evaluated during job interviews, are more likely to accept a job offer before graduation, and have a higher income and a higher level of job satisfaction than their lower self-esteem classmates (Cook, Vance, and Spector 2000, Ellis and Taylor 1983, Liden, Martin, and Parsons 1993).

Together, self-esteem, depression, and anxiety have tangible effects not only on college students’ experiences and health while enrolled, but also on their economic success and satisfaction as graduates. Due to this important effect on life outcomes, a number of social psychologists have attempted to unravel the relationship between self-esteem, emotion, and mental health (Burke 1991, Cast and Burke 2002, Gecas 1982, Owens 1994). Identity theory (Burke and Stets 2009) researchers in particular have elucidated the relationship between identity and self-esteem. Important findings include that the number of identities we hold is a strong predictor of psychological distress and that the verification or disruption of identities is associated with self-worth, self-efficacy, depression, and anxiety (Cast and Burke 2002, Large and Marcussen 2000, Stets and Harrod 2004, Thoits 1983). Furthermore, studies of college students have shown that discrepancies between one’s ideal self and who one actually is lead to dejection and depression, while discrepancies between how one ought to be and actual selves lead to agitation and anxiety (Higgins, Klein, and Strauman 1985).

Two other theories that have been influenced by a combination of classical and structural conceptions of self and identity are affect control theory (e.g., Heise 1977, 1979, 2007, MacKinnon 1994, Smith-Lovin and Heise 1988) and its recent extension, the affect control theory of self (MacKinnon and Heise 2010). While the former theory focuses on confirming situational identities by enacting symbolically congruent
behaviors, the newly developed theory focuses on verifying general feelings about the self through identity selection. MacKinnon and Heise’s (2010) concept of self, termed the persona, has foundations in the writings of Mead (1934), Cooley (1902), Berger and Luckmann (1966), and Goffman (1959). The persona is operationalized mathematically through three underlying dimensions of meaning: evaluation, potency, and activity. The affect control theory of self formalizes classic symbolic interactionist conceptualizations of self while allowing for the derivation of falsifiable predictions.

The goals of this paper are three-fold. First, I derive a set of hypotheses that tests the propositions of the affect control theory of self (MacKinnon and Heise 2010, MacKinnon 2015). This mathematically modeled theory provides a formal means of testing a classic idea in symbolic interactionism: that we aim to select identities that maintain our feelings about, or sense of, self. I test this proposition by using college students’ self-sentiments to predict their ratings on a range of both positively and negatively evaluated traits. Second, I explore how self-sentiments and ratings on negatively and positively evaluated traits relate to psychological well-being both cross-sectionally and at a second time point five months later. This study serves as a first longitudinal test of MacKinnon’s (2015) predictions that evaluation is related to self-esteem and depression, potency is related to self-efficacy, and activity is related to depression. The third goal of this study is to expand the affect control theory of self to anxiety, the most commonly diagnosed set of psychological disorders in the United States. These analyses will not only serve as a test of a new theory, but will elucidate the relationship between self, identity, and mental health issues prevalent among college students and in American society more generally.
Because the affect control theory of self developed from classic symbolic interactionism and it utilizes a similar approach and equations to affect control theory, I first review these foundations. I then present the core concepts and propositions of the affect control theory of self and the hypotheses of the study. I present the results from five sets of analyses and conclude with a discussion of self, identity, and mental health.

CLASSIC SYMBOLIC INTERACTIONISM

Even though structural and discursive approaches to self and identity vary in their level of formalization and ontological approach (McPhail and Rexroat 1979, Blumer 1969), there is fundamental agreement on the premises of symbolic interactionism derived from Mead’s (1934) *Mind, Self and Society*. Core ideas in Mead’s work, later codified by Blumer (1969), include that humans are uniquely able to take the role of the other, that they are able to adjust and adapt their behavior to environments, and that the self is possible through communication with significant symbols. The reflexive process of taking oneself as an object of study means that humans behave in accordance with self-meanings. Mead introduces the concepts of “I” and “me” to explicate this process—it is the interaction between the aware and active “I” and the culturally inscribed, reflected “me” that produces the self. While self-meaning is only possible through interaction in society, this process is also internal and rehearsed. The “me” reacts to the “I,” such that people come to expect how they will be viewed and treated in actual interaction. In his seminal work, “The Looking Glass Self” (1902), Cooley made similar arguments: self and society are “two sides of the same coin” (Stryker and Vryan 2006, p. 13). Cooley (1902) felt that one cannot study either the individual or social systems in isolation—the self develops in our minds in response to the appraisals we are given by others.
Cooley’s (1902) and Mead’s (1934) concepts lay the foundation for the core
tenets of classic symbolic interactionism. In particular, Mead’s (1934) work is a
pragmatic and behaviorist approach to understanding social action. A philosopher by
training, his treatise provides a meta-theoretical approach that continues to influence the
work of modern social psychologists and sociology more generally (Stryker 1980).
Cooley’s (1902) and Mead’s (1934) conjectures are difficult to observe and nearly
impossible to test quantitatively. However, their early writings on reflexive, interactional
self processes lay the foundation for the micro- and meso-level theorizing of structural
symbolic interactionists and more discursive approaches to meaning making (Blumer

**AFFECT CONTROL THEORY**

Like Mead’s (1934) symbolic interactionism, affect control theory asserts that individuals
want to have experiences that are consistent with their understandings of the world. In
affect control theory, these understandings are *fundamental sentiments*, which are
culturally agreed-upon feelings about identities, behaviors, and emotions. Fundamental
sentiments are learned through interaction with others and internalized, which allows
people to organize their social world. Heise (1977, 1979) drew on the work of Osgood and
colleagues (1967) to operationalize fundamental sentiments. Through a series of cross-
cultural studies and factor analyses, these researchers found individuals most frequently
used words that fit under the dimensions of *evaluation* (bad/awful, good/nice), *potency*
(little/powerless, big/powerful), and *activity* (slow/old/quiet, fast/young/noisy) to describe
concepts. Collectively, these dimensions are known as *EPA ratings*. 
Affect control theory researchers most frequently collect and aggregate EPA ratings of identities, attributes, behaviors, and emotions, although dictionaries of settings, non-verbal behaviors, and consumer products have also been collected (Rashotte 2002, Shank and Lulham 2016, Smith-Lovin 1987). All concepts are measured on a range from -4.3 to 4.3 and are plotted in the same three-dimensional space, termed the semantic differential. Affect control theory formalizes culture—how we, as a society, feel about identities like flirt (1.35, 1.32, 1.77) and hunk (2.00, 1.64, 1.52), behaviors like toast (1.95, 1.39, 1.20) and abuse (-3.97, 0.71, 0.66), and locations like cocktail lounge (1.08, 0.92, 1.64) and whorehouse (-3.08, -0.92, 2.36) (Francis and Heise 2002-03). In affect control theory, events are the unit of analysis, and they are constructed like a simple actor-behavior-object sentence (MacKinnon 1994). For example, to analyze an event, one would consider fundamental sentiments of the actor, the behavior, and the object-person—and if so desired, the setting. The proximity of these concepts to one another in three-dimensional space influences our expectations for how interactions will unfold. For example, “flirt,” “hunk,” “toast,” and “cocktail lounge” occupy a similar point in EPA space—they are all positive on evaluation and slightly positive on potency and activity. Thus, a hunk toasting a flirt in a cocktail lounge would be considered a likely, expected event. These identities, settings, and behaviors are associated with similarly positive emotions, such as gleeful, euphoric, or optimistic.

Affect control theory equations also estimate how behaviors influence appraisals of the individuals involved in an interaction. These appraisals are called transient impressions and are also measured on the dimensions of E, P, and A. For example, if “a hunk toasts a flirt in a cocktail lounge,” transient impressions produced for the hunk
would be slightly more positive on evaluation and both actors would feel charmed (2.20, 1.58, 0.60). Conversely, if “a hunk abused a flirt in a whorehouse,” both actors would be seen more negatively on evaluation than the fundamental sentiments of these identities. The flirt would be seen as particularly powerless, and we would expect her to feel terrified (-2.44, -2.09, -0.25). The mathematical combination of cultural fundamental sentiments and situational transient impressions is called *impression formation*.

When social actors encounter a situation or event that challenges enduring meanings for identities, *deflection* is produced (MacKinnon 1994). Deflection is operationalized as the distance between the EPA ratings of fundamental sentiments and transient impressions for the actor, behavior, and object in an event. The higher the level of deflection, the less likely and more disturbing an event (Nelson 2006, Smith-Lovin 1990, Smith-Lovin and Heise 1988). The upsetting scenario where a hunk abuses a flirt in a whorehouse would produce such high levels of deflection that it would be seen as completely impossible. Such unlikely events would produce fear or shock, leading interactants to behave in ways or reframe their understandings of the experience to make more sense of it: the flirt might wrestle with or argue with the hunk, or, post-hoc, re-identify the hunk as a sadistic lady-killer. These behaviors and revisions realign transient impressions produced by the deflecting event with cultural sentiments about identities and decrease cognitive confusion.

**THE AFFECT CONTROL THEORY OF SELF**

Using classic symbolic interactionist foundations and affect control theory’s formal, general measurement scheme, MacKinnon and Heise (2010) developed the affect control theory of self, which focuses on individuals rather than events. In ACT-Self, the
self is the *persona*, which, a la Mead, is constructed through an interactive, self-reflexive process. The persona is an aggregation of identities; it is a person’s understanding of his or her past experiences that guides current interaction. This self not only contains institutional roles or statuses, but it also contains a host of other characteristics, including physical features, like weight and appearance, and psychological features such as personality, dispositional traits, and emotions. The persona “incorporate[s] the sense of being an embodied entity with distinct… characteristics” and allows individuals to move between institutions and across situations with a sense of continuity despite the complex constitution of postmodern lives and selves (p. 109). Drawing from Berger and Luckmann (1966)’s *The Social Construction of Reality*, MacKinnon and Heise (2010) argue that the persona represents a “reflected-upon whole” constructed of various “socially shared universes of meaning” (Berger and Luckman 1966:82).

**Self-Actualization**

The persona is surely complex, but it is a measurable product of both culturally agreed-upon meanings and our interactional reflections that drives human behavior. The persona evokes *self-sentiments*: a fundamental feeling about the self. Consistent with fundamental sentiments in affect control theory, *self*-sentiments are mathematically expressed as *self-evaluation*, *self-potency*, and *self-activation*. These self-sentiments are a combination of the EPA ratings of the multitude of identities and characteristics an individual holds and has held, and they motivate behavior. In the affect control theory of self model, the goal is to maintain or sustain self-sentiments. Individuals accomplish this through role choice in a cybernetic control system (MacKinnon and Heise 2010). Individuals experience *self-actualization* when they are able to enact identities that are
congruent with their self-sentiments. This means enacting and displaying identity-confirming roles: an individual must “look, talk, act, and feel as [she or he] is supposed to” (p. 119).

If an individual enacts a self-actualizing identity, the persona is not disturbed. If a person is unable to actualize the self in interaction, she or he will be forced to occupy an inauthentic identity, producing self-disruption (MacKinnon and Heise 2010). The occupation of an inauthentic identity is not a rare occurrence, and may be caused by both consensual and non-consensual means. For example, an individual can be forced to occupy inauthentic identities due to other interactants’ altercasting or their (in)ability to reward or punish (MacKinnon and Heise 2010: 128). Although individuals have some agency in shaping their persona, the power and desires of others are the main way that new identities enter the identity set. This distance between self-sentiments and the fundamental sentiments of an enacted identity is the *identity distance*. As this distance increases, the likelihood of enacting that identity decreases.

Although this resultant *identity distance* produces cognitive and affective distress like deflection, its measurement is different. In ACT, deflection is the distance between fundamental sentiments and transient impression for the actor, behavior, and object in an event. In ACT-Self, the identity distance is the distance between the self-sentiments of one’s persona and the fundamental sentiments of the identity she or he enacts (or is forced to enact) in a situation. In this way, ACT-Self complements ACT, as it is a symbolic control system that maintains sentiments. However, in ACT, individuals are motivated to act in ways that maintain fundamental sentiments about identities and behaviors in an *event*. In ACT-Self, the actors are motivated to enact identities and enter
institutions that maintain relatively stable sentiments about themselves—the self-actualization proposition.

Because all concepts can be measured on these three EPA dimensions, one could use self-sentiments to make predictions beyond identity enactment. One could extrapolate these equations to predict the behaviors a person might engage in, the emotions she typically experiences, and the settings in which she feels authentic. In the current study, I use this formula to predict the extent to which participants describe themselves using various positive and negative traits and attributes.

**Deviant Identities and Selves**

Importantly, MacKinnon and Heise (2010) argue that even individuals with negative self-views and identities will attempt to sustain their negative self-sentiments by enacting identities that are nearby in EPA space (the self-actualization proposition of deviance). To demonstrate this point, the authors located identities that are close to “sociopath” in EPA space. They find terms such as “debtor,” “divorced,” “gypsy,” “swinger,” and “suspect.” They argue that because these identities produce a small identity distance, sociopaths would be more likely than non-sociopaths to enact these identities. They use Robins’ (1966) longitudinal study, which includes interviews and official records of 524 psychiatric patients with sociopathic personalities, to support their hypotheses. Robins (1966) found that sociopathic participants were more likely to be unemployed, divorced, geographically mobile, promiscuous, and arrested than a control group. Robins’ (1966) findings support the affect control theory of self in that “sociopaths” were more likely than a control group to enact self-actualizing identities and behaviors located near this point in EPA space.
Kroska and Harkness’s (2006) study of mentally ill patients also evidence the relationship between cultural sentiments and self-sentiments. The authors find that the EPA ratings of “mentally ill person” provided by individuals with affective disorder diagnoses (e.g., bipolar disorder, major depression) significantly predict their own self-sentiments (“myself as I really am”). Kroska and Harkness argue that being diagnosed as mentally ill makes the fundamental sentiments of this identity self-relevant; those who are labeled incorporate these sentiments into their own self-views.

The examination of deviant identities and behavior is an important contribution to understanding self-processes. Previous identity theory studies (Burke and Stets 2009) tend to test the theory’s mechanisms using socially valued, positive person or role identities such as husband and wife (Cast and Cantwell 2007), volunteer (Thoits 2013), college student (Burke and Reitzes 1991, Brenner, Serpe, Stryker 2013), gender identity (Burke, Stets, and Pirog-Good 1988), and the moral person identity (Stets and Carter 2011) (see Granberg, 2006 for a notable exception). However, affect control theory explains the behaviors of individuals with both positive and negative identities using the same predictive equations. Due to this theoretical precision and generality, researchers in ACT have often historically focused on deviance, such as alcoholism (Thomassen 2002), criminality and violence (Boyle and McKinzie 2015, Kalkhoff 2002, Robinson, Smith-Lovin, and Tsoudis 1994, Tsoudis 2000), music subcultures (Hunt 2010), and sexual deviance (Carter and Stringer 2014, Schneider 1999). A combination of identity theory’s rigorous focus on the individual and mental health and the affect control theories’ capacity to explain both positive and stigmatized identities and behavior lays the foundation for the current study.
Self-Sentiments and Mental Health

Self-sentiments not only have consequences for behavior but for self-esteem and mental health. In his recent expansion of the affect control theory of self, MacKinnon (2015) composed an in-depth discussion and critique of the measurement and study of self-esteem. MacKinnon (2015) argues that there is a lack of distinction between cognitive and affective components of the self in self-esteem research. He summarizes and levies his own critiques of self-esteem, particularly in relation to “the way the construct has been conceptualized and measured” and the use of Likert scales rather than the bipolar semantic differential (p. 160) (Baumestier et al. 1993, Russell and Carroll 1999, Scheff and Feardon 2004). He suggests that self-sentiments, which seamlessly incorporate thoughts and feelings about the self, provide a more comprehensive understanding of self. He argues for, and finds support for, a three-factor model of self: self-evaluation, self-potency, and self-activation, which are consistent with the evaluation-potency-activity dimensions of the affect control theories and thus can be entered into the “mathematical models of the self-process” (MacKinnon 2015:160). Specifically, while drawing from the theorizing and research of others and his own empirical tests, MacKinnon (2015) conceptually and/or explicitly links evaluation with self-esteem and depression, potency with self-efficacy, and activity with depression.

THE CURRENT STUDY

In order to test the aforementioned arguments and the self-actualization propositions of the affect control theory of self, I collected self-sentiments and self-descriptions from 652 college students and a subset of this sample five months later (N=137). I test the following hypotheses both cross-sectionally, within Wave, and
longitudinally, across Wave 1 and Wave 2s. The self-actualization propositions of the theory state that individuals will select identities that confirm their persona. In other words, they will enact identities that have EPA ratings that are close to their own self-EPA ratings. To test this, I calculate the squared Euclidean distance between individuals’ self-sentiments and the evaluation, potency, and activity (EPA) ratings of 32 traits (16 for each Wave). Following the self-actualization propositions of the affect control theory of self, I expect a negative, significant relationship between trait distance and self-ratings on traits for all 32 traits, regardless of whether they are positive or negative concepts:

Hypothesis 1: The further individuals’ self-sentiments are from the EPA ratings of a trait, the less likely they are to agree that this trait describes them.

Next, I use self-sentiments to test MacKinnon’s (2015) well-being hypotheses. I examine the relationship between self-sentiments and self-esteem, self-efficacy, and depression at both Wave 1 and Wave 2. I predict that:

Hypothesis 2: Self-evaluation ratings are (a) positively associated with self-esteem and (b) negatively associated with depression.

Hypothesis 3: Self-potency ratings are positively associated with self-efficacy.

Hypothesis 4: Self-activation ratings are negatively associated with depression.

Depression and anxiety are positively, significantly correlated in the mental health literature and often studied simultaneously (e.g., Lovibond and Lovibond 1995, Schoevers et al. 2003). It has been estimated that 85 percent of depressed patients also experience generalized anxiety disorder, and, like depression, anxiety is also associated with self-doubt and powerlessness (Beck and Steer 1990, Gorman 1996). Despite this comorbidity and similarity, however, I do not simply replicate the depression hypothesis
here, because anxiety is associated with agitation, physiological hyperarousal, and panic rather than decreased energy (Higgins, Klein, and Strauman 1985). Thus, I predict that:

Hypothesis 5: (a) Self-evaluation and (b) self-potency ratings are negatively associated with anxiety and (c) self-activation ratings are positively associated with anxiety.

Participants’ self-ratings on the 32 traits are then used to create two summative variables—one for positive traits and one for negative traits. I use these factor scores to test the following mediating hypotheses:

Hypothesis 6: Positive trait scores will mediate the effect of (a) self-evaluation on self-esteem and (b) self-potency on self-efficacy.

Hypothesis 7: Negative trait scores will mediate the effect of (a) self-evaluation on depression, (b) self-activation on depression, and anxiety on (c) self-evaluation, (d) self-potency, and (e) self-activation.

In testing these hypotheses longitudinally, I test core arguments of the affect control theory of self and demonstrate the important and enduring effect of both self and identity on esteem, efficacy, depression, and anxiety.

**METHODS**

**Sample**

Undergraduate students were recruited by email from a large, public university in the southeastern United States. Using a list of undergraduate students aged 18 to 25 received from the registrar, students were emailed and asked to participate in the “College Identity Study.” Potential participants were provided with a summary of the study and a link to the informational letter and survey hosted on Qualtrics. For
participation, they were automatically entered into a drawing for one of three fifty dollar Visa check cards. However, due to state law, students must be able to enter the lottery without participation. Students who did not wish to participate could enter the lottery by emailing me a request.

Qualtrics confirmed that approximately 1,200 opened and began the survey (5%). Of those students who opened the survey, 67 percent completed the survey (N=652 after listwise deletion). Low response rates can be explained by the decreasing trend in college students’ responses to surveys, particularly those that are administered online, the lack of a guaranteed paid incentive, students’ option to enter the lottery without actual participation, and the timing of the survey distribution (shortly after spring break) (Manfreda et al. 2008, Millar and Dillman 2001, Porter and Whitcomb 2005, Scott et al. 2011). Also, the ability to click through the survey without answering any questions and still be entered into the drawing could have had a large impact on missing data.

Wave 1 participants without missing data on key variables (N=686) were invited to participate in a paid ($10) follow-up survey five months later. Of the students that opened the survey, 89 percent completed the survey. After listwise deletion, the Wave 2 subset consists of 137 college men and women, or 21 percent of the Wave 1 sample. Analyses were conducted to determine potential factors that drove selection into this subset. Race, age, sexual orientation, experiencing sexual victimization, and self-sentiments were not predictive of selecting into Wave 2. However, male participants were less likely to participate in the follow-up, and younger participants were more likely to participate in the follow-up. This could have occurred for multiple reasons. The recruitment email was sent to university email addresses, the survey is called the
“College Identity Study,” and the email was addressed “Dear [University] Student.”

Because 26 percent of students at Wave 1, collected in the spring, were in their fourth or fifth years, many of these students may have graduated, no longer have access to or check their university email account, or read the title and assumed they did not meet the inclusion criteria. Of those who participated in both Waves, the majority are female (79.5%) and white (85%), and the average age is 20 years old (M=19.9).

**Dependent Variables**

Participants completed measures of *self-esteem* (Rosenberg 1979) and *depression* (CES-D [Radloff 1977]) at both Wave 1 and Wave 2. Following MacKinnon (2015), the items in Rosenberg’s (1979) list were divided into two distinct concepts: *self-esteem* and *self-efficacy*. Using this delineation, four items were used to calculate a factor score for *self-esteem* (alpha=0.839) and two items were weighted by their factor loadings and used to create the variables for *self-efficacy* (alpha=0.788). The ten items of the CES-D were used to calculate a factor-weighted score for *depression* for both Wave 1 and Wave 2 (alpha=0.861). Only at Wave 2, the state anxiety dimension of the State-Trait Anxiety Inventory (Spielberger 1989) was used to create a factor score for *anxiety* (alpha=0.54). Because these are scale variables, OLS regression is used when conducting analyses.

**Independent Variables**

**Self-Sentiments.** Participants’ self-sentiments were collected at Wave 1 and Wave 2. In the beginning of the study, participants were asked to rate themselves (“myself as I really am”) on three 9-point bipolar scales between bad/awful to good/nice (*self-evaluation*), little/powerless to big/powerful (*self-potency*), and slow/quiet/inactive to fast/noisy/inactive (*self-activation*). In both Wave 1 and Wave 2, participants rated
themselves somewhat good/nice on evaluation (M=2.03, M=1.99) and neutrally on potency (M=0.76, M=0.83) and activation (M=0.59, M=0.54).

**Trait distances.** The distance between participants’ self-sentiments and the EPA ratings of 32 traits was calculated using the Georgia (2012-14) Dictionary. All traits and their EPA ratings are listed in Table 4.1. Wave 1 trait distances were calculated between Wave 1 self-sentiments and the EPA ratings of 16 bipolar traits; Wave 2 trait distances were calculated between Wave 2 self-sentiments and the EPA ratings of 16 different, unidimensional traits. The equation used in the affect control theory of self (MacKinnon and Heise 2010) is very similar to the classic deflection equation used in affect control theory, where Se is the self-sentiment and Te is the fundamental sentiment of the trait:

\[
\text{Trait Distance} = \sqrt{(Te - Se)^2 + (Tp - Sp)^2 (Ta - Sa)^2}
\]

The larger the identity distance, the further self-sentiments and trait sentiments are apart, and the less likely a person is to agree that this trait describes them.

**Mediating Variables**

**Positive and negative trait ratings.** In the larger study, which employs methods and measures of other social psychological theories, I followed methodology typically used in identity theory (Burke and Stets 2009) to collect Wave 1 trait ratings. In identity theory, researchers establish the underlying meaning of identities by asking participants to list words that are associated with identities. (In this larger study, I also examined university student, partier, mentally ill person, and overweight person.) After gathering these descriptive terms, I selected antonyms for each term to develop seven point bipolar scales, as is done in identity theory. Participants in the current study were asked to place themselves between each opposite characteristic (Stets and Carter 2011).
Traits were categorized as either positive or negative based on their EPA ratings. Positive traits have positive evaluation (and mostly positive potency and activity) ratings and negative traits have negative evaluation (and mostly negative potency and activity) ratings. At Wave 1, positive traits are sad/happy, irresponsible/responsible, lazy/hardworking, scared/brave, timid/confident, lethargic/energetic, unstable/stable, and broken/strong. Negative traits are social/antisocial, calm/anxious, intelligent/stupid, cheerful/sad, uninjured/hurt, healthy/unhealthy, capable/helpless, and driven/unmotivated. The ordering of items was randomized in the survey.

At Wave 2, I took a different approach. After Wave 1 was collected for this study, MacKinnon (2015) released a book in which he examines self-sentiments, self-esteem, and individuals’ self-conceptualizations. MacKinnon (2015) did not use bipolar scales like those used above to capture individuals’ self-meanings. Rather, participants were presented with a list of adjectives and asked to rate themselves from “does not describe me” to “describes me” (MacKinnon 2015, p. 119). I chose to employ this method in Wave 2 rather than using the identity theory approach because MacKinnon’s (2015) book expands upon the affect control theory of self, so that I may replicate his findings in future studies, and in order to establish whether ACT-Self operates differently when using the semantic differential versus Likert scales. Thus, Wave 1 examines where individuals fall between two opposite concepts; Wave 2 examines the intensity with which they agree a singular concept applies to them.

Of all of the traits included in Wave 2 of this dissertation, the eight traits highest in evaluation and potency, and the eight traits lowest in evaluation and potency were selected for use in the current study. The positive traits are: knowledgeable, intelligent,
self-confident, effective, determined, competent, imaginative, and communicative. The negative traits are: spacey, passive, withdrawn, timid, naïve, submissive, aimless, and absentminded. Ordinal logistic regression is used when testing the effects of trait distances on trait ratings for both Waves.

Participants’ trait ratings at Wave 1 were weighted by their factor loadings and combined into the Wave 1 positive trait score (alpha=0.81) and Wave 1 negative trait score (alpha=0.76); Wave 2 trait ratings were combined into the Wave 2 positive trait score (alpha=0.82) and Wave 1 negative trait score (alpha=0.83).

**Controls.** For tests of self-esteem, self-efficacy, depression, and anxiety, controls for participant sex (male) and race (white) were included due to their potential relationship with mental health and self-esteem.

**RESULTS**

The first set of analyses examines the effect of trait distance on participants’ self-ratings on 16 positive and negative traits at Wave 1, and 16 positive and negative traits at Wave 2 (Table 4.1). The self-actualization proposition of the affect control theory of self posits that individuals will select traits with fundamental sentiments that are located more closely to their self-sentiments in EPA space. For both Waves, Hypothesis 1 is supported universally, as all relationships were in the negative direction and significant, mostly at the .001 level (one effect was only marginally significant). These analyses also support the self-actualization proposition of *deviance*, as the effect holds for even negatively evaluated traits. Whereas self-enhancement approaches would argue individuals tend to describe themselves in ways that enhance their image or self-esteem, here, the closer one’s self-sentiments are to even undesirable terms (like sad, stupid, and anxious), the
more likely she or he is to agree that this term describes her or him. It is important to note that the average odds ratio, or percentage change in dependent variable based on the independent variable, did not vary widely between waves or between positive versus negative traits, suggesting that the affect control theory of self predicts the actualization of both socially valued and stigmatized identities equally well using either bipolar or Likert scales.

(Table 4.1 about here)

Self-Esteem and Well-Being

The next set of analyses examines the relationship between self-sentiments and psychological well-being. MacKinnon (2015) conceptually linked self-evaluation to self-esteem and depression, self-potency to self-efficacy, and self-activation to depression. I also expand this discussion to anxiety. Because both cross-sectional and longitudinal analyses are parallel, and tend to be supported in both instances, I discuss them simultaneously and indicate where there are differences. First, I examine self-esteem (Table 4.2).

Self-esteem. As predicted, there is a positive, significant relationship between self-evaluation ratings and self-esteem ratings both cross-sectionally and longitudinally (Hypothesis 2[a]). Self-esteem is also positively associated with self-potency. This is not surprising, as MacKinnon (2015) noted that evaluation and potency, and esteem and efficacy, are not only positively correlated but intertwined.

(Table 4.2 about here)

Positive trait scores were positively associated with self-esteem within Wave 1 (coef.=0.51, p<.001), and within Wave 2 (coef.=0.21, p<.01). As predicted in Hypothesis
6(a), positive trait scores mediate the relationship between self-evaluation and self-esteem at both waves, explaining between 55 and 30 percent of the total effect (p<.001). The mediation was not significant, however, for Wave 2 positive traits on Wave 2 self-esteem. Overall, these models explained between 30 and 56 percent of the variance in self-esteem, with self-evaluation, positive traits, and of course, Wave 1 self-esteem having the largest effects.

**Self-efficacy.** Similar patterns are produced when examining self-efficacy (Table 4.3). As predicted, Wave 1 self-potency is positively associated with Wave 1 self-efficacy and predicts self-efficacy at Wave 2 (Hypothesis 3). Wave 2 self-potency was not positively associated with Wave 2 self-efficacy.

Describing oneself with positive traits is also associated with self-efficacy within waves (p<.01). Sixty-six percent of the effect of the relationship between Wave 1 self-potency and Wave 1 self-efficacy, and 41 percent of the effect of Wave 1 self-potency on Wave 2 self-efficacy are mediated by positive trait scores, supporting Hypothesis 6(b) (p<.001). Once again, there is a persisting effect of self-sentiments on psychological well-being over time. Even while controlling for Wave 2 self-sentiments and Wave 1 self-efficacy, participants’ feelings that they are weak/strong (potency) predict levels of self-efficacy five months later. Final models explain between 26 to 48 percent of the variation in self-efficacy.

(Table 4.3 about here)

**Depression.** I predicted a negative relationship between self-evaluation and depression (Table 4.4). Hypothesis 2(b) was supported, as self-evaluation is negatively associated with depression within Wave 1 (coef.=-0.21, p<.001) and within Wave 2
Seventy percent of the relationship between self-evaluation and depression is mediated by positive traits in Wave 1 and 16 percent of this relationship is mediated by positive traits in Wave 2 (p<.001).

Hypothesis 4, that self-activation would be negatively associated with depression, was also supported. Wave 1 depression (coef.=-0.05, p<.05) and Wave 2 depression (coef.=-0.06, p<.10) are both negatively associated with Wave 1 self-activation, although this second relationship is only marginally significant. Fifty-one percent of the Wave 2 relationship is mediated by negative trait scores (p<.001).

Anxiety. Lastly, I examine the relationship between self-sentiments and anxiety (Table 4.5). Specifically, I expect a negative relationship between both self-evaluation and self-potency and anxiety, and a positive relationship between self-activation and anxiety (Hypothesis 5). Hypothesis 5(a) is supported, as self-evaluation ratings at Wave 1 (coef.=-0.12, p<.05) and Wave 2 (coef.=-0.18, p<.05) negatively predict anxiety at Wave 2. These effects are partially mediated through negative trait scores, though the mediation for Wave 2 self-evaluation is only marginally significant (39% p<.01 and 9% p<.10) (Hypothesis 7[c]).

Self-potency ratings are also negatively associated with anxiety at Wave 1 (coef.=-0.10, p<.10) and Wave 2 (coef.=0.15, p<.05), supporting Hypothesis 5(b). The effect of self-potency at Wave 1 on anxiety is partially mediated by negative trait scores (64%, p<.01), and there is no significant mediation effect for Wave 2 self-potency on anxiety (Hypothesis 7[d]). There is no significant relationship between self-activation and
anxiety, and thus, no mediation effect due to negative trait scores (Hypotheses 5[c] and 7[e]).

(Table 4.5 about here)

**DISCUSSION**

Depression, anxiety, and self-esteem are important social psychological factors that influence college students’ social and romantic relationships while preventing or promoting academic and post-graduation success (e.g., Cranford et al. 2009, Denollet et al. 2009, Erol and Orth 2014, Guillette and Lyons 2006, Kitzrow 2003). The affect control theory of self (MacKinnon and Heise 2010, MacKinnon 2015), a newly developed theory that formally investigates the relationship between self, identity, institutions, culture, and well-being, is a promising approach to understanding these psychological constructs. This theory posits that individuals will enact identities and behaviors and engage in institutions that are congruent with their persona, or their general, acontextual sense of self, in order to experience authenticity, termed *self-actualization*. These self-sentiments, along with the identities enacted and events experienced, influence individuals’ affective and psychological states.

The current study moves formal approaches to studies of the self forward by demonstrating the self-actualization process in a longitudinal sample. Participants in this study agreed that traits described them when they were located more closely to their self-sentiments in EPA space. Participants’ self-sentiments predicted ratings on a range of terms, including primary emotions (happy, sad), sociability-related concepts (withdrawn, antisocial), physical capacity (strong, healthy), success-oriented concepts (competent, hardworking), and other interpersonal characteristics (communicative, passive). This is
not surprising, as Scholl (2013) has connected the three dimensions used in both affect control theories to other important psychological and interactional concepts, such as happiness/disgust with evaluation, dominance/submission with potency, and high/low arousability with activity. Like all interactionist theories, the affect control theory of self has implications far beyond mere self-description and identity selection—where we exist on these dimensions shapes our emotional states and psychological well-being, are a reflection of power dynamics, and influences our willingness to act on our social environments. This study supports both the self-actualization proposition and the self-actualization proposition of deviance. Because enduring negative emotion is considered deviant and is associated with mental illness in a multitude of contexts (Thoits 1990), it is important that the affect control theory of self is equally predictive for both positive and negative characteristics.

MacKinnon and Heise (2010, MacKinnon 2015) explicitly associate self-evaluation with self-worth and self-potency with self-efficacy, while arguing that self-activation adds an important third component to the self—it is the emotional energy, the willingness to act. The current study demonstrates the utility of a mathematical control theory of culture and self in demonstrating that how individuals feel about themselves and how they see themselves predicts self-esteem and psychological distress. In this way, the affect control theory of self formalizes processes at the very foundation of symbolic interactionism as developed by Cooley (1902) and Mead (1934): using interaction to gather information about the self, reflecting on that self as a social object, and acting in ways to confirm that self. MacKinnon and Heise (2010) add emotion and psychological well-being to Cooley and Mead’s more cognitive, behavioral theories.
The current study supports MacKinnon’s (2015) claims by linking self-evaluation to feelings of worth, self-potency to feelings of efficacy, and self-activation to depression. I extended the theory to connect all three self-sentiment dimensions to anxiety, though hypotheses were only partially supported with this variable. Importantly, the effects of self-sentiments on all forms of esteem and mental health were mediated by positive and negative ways in which individuals describe themselves. Since these effects were not full mediations, this suggests that the traits and identities we hold not only mediate but add to the effects of self-sentiments on well-being. The number of traits included here, however, were limited. It is possible that a more inclusive and perhaps more neutral set of terms may increase the high levels of variation explained in the current models.

**Future Research**

Given the importance of self-sentiments for explaining self-esteem and mental health, *identifying* and *explaining* demographic differences in individuals’ self-sentiments and trait selection could lead to improved understanding and interventions for college students, an overly distressed group that is lacking in mental health services and rarely seeks help (Kitzrow 2003). Determining predictors of decreased self-sentiments (e.g., identity-disrupting microaggressions, academic failures, and victimizations) and what alternate, situational, or subcultural traits, identities, and behaviors could bolster these sentiments could improve the mental health of particularly vulnerable, marginalized individuals and groups. Self-sentiments are simple, three-dimensional ratings that take seconds to complete yet have a large predictive value for identity, behavior, emotion, and psychological well-being. Their inclusion in the battery of forms and surveys first year
students are accustomed to completing during orientation could identify students at risk for ongoing distress that is deleterious to their social, personal, and economic successes on and beyond the college campus that can lead to dropout and harm to self and others.
CHAPTER 5

CONCLUSION

Examining both empowering and disempowering, normative and deviant identities is important for understanding the full spectrum of identities available to, and enacted by, individuals. In the first two studies of this dissertation, I examined how identification as a “victim” or “survivor” relates to self-esteem, depression, and post-traumatic stress among women, transgender, and agender college students. Studying “victims” and “survivors” is particularly important because these identities have deeply disparate cultural meanings, they are used simultaneously yet in opposition, and they are applied to individuals beyond sexual assault and beyond violence (Convery 2006, Dunn 2010, Hockett and Saucier 2015). In Chapter 4, I examine a broader set of negative and positive emotions, attributes, and traits—from happy to sad, responsible to unmotivated, confident to helpless—and their relationship to anxiety, self-esteem, and depression among a general sample of college students. As a whole, I highlight the social psychological mechanisms that link identity to psychological distress and esteem among not only those having experienced gender-based or sexual violence, but among men and college students more generally. These findings demonstrate the power of social psychological theory for understanding the emotional and psychological well-being of traumatized and non-traumatized persons, and perhaps, its potential for understanding reactions to a range of violent or unfortunate events, such as disease, disaster, and state violence.
WHO ARE VICTIMS AND SURVIVORS?

As a whole, these three studies demonstrate how endorsing identities that are positively evaluated in American culture is associated with greater esteem and worth, and less post-traumatic stress, depression, and anxiety. In Chapter 2, I utilize identity theory to examine whether the salience of victim/survivor identities, participants’ commitment to these identities, their self-attribute of victim- and survivor-like traits, and their acknowledgment as a victim or survivor in the context of sexual assault is associated with post-traumatic stress, depression, and self-esteem. In essence, I test whether having a victim or survivor identity in and central to the identity set is associated with maladjustment and disturbed self and worldviews. Many of the findings support identity theory. When the victim identity is salient, when victim identity meanings are self-relevant, or when one agrees that “I am a victim” in relation to their sexual assault, post-traumatic stress and depression are higher and self-esteem is lower. This is consistent with discursive studies that show the “victim” identity is disempowering and devalued in American society and psychological studies in which women who acknowledge their assault as “rape” have higher levels of distress and negative emotion (Convery 2006, Dunn 2005, Hockett and Saucier 2015, Littleton and Henderson 2009).

However, previous psychological studies have not examined the “survivor” identity, which has been the preferable term among many academics, activists, and practitioners for decades (Dunn 2005, Hockett and Saucier 2015, O’Sullivan 2008). In Chapter 2, acknowledgment as a survivor is not associated with either positive or negative outcomes. However, more general identity measures derived from identity theory produced expected and unexpected findings. When participants endorsed
“survivor”-like attributes, such as strong, brave, and confident, self-esteem was greater, as the theory and literature would predict. Findings, however, demonstrate the complicated nature of “survivorhood” and how enactment of this identity can actually disrupt well-being. Even though having a survivor-like self-view is associated with higher self-esteem, salience of the survivor identity—increased likelihood of discussing this identity with family, friends, and strangers—is associated with lower self-esteem.

These findings are contrary to expectations drawn from studies of victim/survivor discourses—a survivor is supposed to have positive self-attitudes and not feel like a failure. It is possible, however, that seeing oneself as strong yet discussing one’s experiences with others leads to contentious conversations and identity challenges. One might be pushed toward the victim role—through others’ offers of sympathy or reflected appraisals of weakness—be disbelieved, or be blamed for the stigmatizing experience of sexual assault. In sum, although the “survivor” identity is not associated with as many negative outcomes as the “victim,” it is still an identity that produces identity disruption and necessitates careful navigation in social interaction. Using an identity theory approach complicates cultural understandings of “strong survivors” and the concept of salience itself.

The relationship between identity disruption and distress is well supported in the identity theory literature. Discrepancies between one’s actual self and ideal self and one’s self-views and the perceived views of others can lead to anxiety, depression, or general distress (e.g., Burke 1991, Cast and Cantwell 2007, Large and Marcussen 2000, Marcussen 2006). Although measured and conceptualized differently, affect control theorists also argue that the disruption of identities—or the deflection produced by bizarre
events—leads to distress and impaired well-being (Boyle and McKinzie 2015, Francis 1997, 2003, Nelson 2006). This deflection and distress is alleviated when a person behaves in ways to restore meaning or reconceptualizes an aspect of the event in order to realign expectations with actual experiences (MacKinnon 1994). This expected relationship, however, had not been tested empirically.

In Chapter 3 of this dissertation, I integrate psychiatric trauma perspectives that focus on memory fragmentation and dissociation with affect control theory, arguing that the symptoms of post-traumatic stress are also symptomatic of unresolved deflection. I find that the identity deflection produced by sexual assault—which is higher when there was violence and injury involved—is positively associated with the underlying dimensions of PTSD, especially intrusive thoughts. Furthermore, I find that when one makes sense of the event by re-identifying oneself as a victim, post-traumatic stress symptoms are significantly greater, while re-identifying oneself as a survivor is not associated with symptoms, regardless of the level of identity deflection produced.

Chapter 3 provides tentative support for the argument that survivorhood is a “healthier” discourse to adopt for individuals who have been sexually assaulted. However, in the context of the complex findings in Chapter 2, one must not assume a dichotomy of weak, sick victims versus strong, healthy survivors. In fact, such a dichotomy is false and perhaps even dangerous, and women should not be forced to choose between the two (Convery 2006). The self is complex, and contains a multitude of identities at any given moment (Stryker 1980). As demonstrated by the current study—they can also be rather conflicting. In Chapter 3, I found that agreement with the statement “I am a victim” and “I am a survivor” are actually highly, positively correlated,
suggesting that individuals may contain both in their identity sets, enacting each in different moments or situations.

I expect that selective victim and survivor identity enactment is done both consciously and unconsciously across institutions and as motivations shift. For instance, Konradi’s (1999) interviews with rape victim/survivors demonstrated that women intentionally and actively managed and expressed specific emotions in the courtroom. Given that perceptions of rape victim/survivors—and their emotional states—influence juror decisions and support for their claims, it is strategic to act victim-like (“tearful/upset”) rather than survivor-like (“calm/controlled”) in such contexts (Klippenstine and Schuller 2012:79). Despite the contentious and disrupting identity work that women must often perform in the case of gender-based violence, women do have agency in how they engage with the criminal justice system (Dunn 2001, Greeson and Campbell 2011, Leisenring 2011). Future qualitative research that examines the contexts in which the survivor identity (and survivor-like traits and emotions) is successfully or less successfully enacted could expand understanding of the complex identity sets held by persons who have been victimized.

**TRAUMATIZED SELVES**

As Berntsen and Rubin (2006) highlight, numerous theorists have conceptualized identity as a set of coherent life stories, and they provide an understanding of trauma through the lens of identity and narrative (e.g., Baerger and McAdams 1999, Fitzgerald 1988). Both identity theory (Chapter 2) and affect control theory (Chapter 3) can be used to understand this weaving of trauma into self-narratives. The affect control theory of self, despite not being applied to sexual assault in this dissertation, can also be applied
here. The affect control theory of self (MacKinnon and Heise 2010, MacKinnon 2015) offers a formal explanation for how traumatized memories (and identities) might become integrated into the self. MacKinnon and Heise (2010) conceptualize the self as an amalgamation of memories, traits, experiences, and current and past identities organized in a coherent narrative—the “persona.” New identities (like victim or survivor) enter the biography (and thus, self) in power-imbalanced events in which one is forced to enact an identity despite one’s self-conceptualization or desires (MacKinnon and Heise 2010). Cultural sentiments about that new identity—such as a weak, helpless victim or a powerful, strong survivor—will then be incorporated into the self-sentiments, which are also measured on the three dimensions of evaluation, potency, and activity.

The affect control theory of self offers a holistic approach that encompasses all of these things: self, identity, interaction, disruption, emotion, and mental health. Chapter 4 demonstrates that self-sentiments strongly predict the identities of which the self is comprised, and that individuals are a composite of experiences that manifest in interactions and psychological states. Unfortunately, the experiences of members of high-risk groups for assault, such as women, people of color, those living in poverty, and sexual minorities, are more likely to consist of traumatic or identity-challenging events. Self-sentiments are not only built by the identities we enact and experiences we encounter; self-sentiments guide interactions and influence the identities we select, the behaviors we enact, and the institutions and relationships we engage in (MacKinnon and Heise 2010). Given the strong link between identity and behavior demonstrated in social psychological research, the affect control theory of self could improve understanding of variation in behavioral responses to assault, such as reporting, help-seeking, and activism
Disclosure and receiving counseling and health services are important to the recovery for victim/survivors and their well-being, and the affect control theory of self could weave all of these aspects of sexual victimization into a single model.

**CONTRIBUTIONS TO AND QUESTIONS FOR THEORY**

The studies of this dissertation diverge from and/or elaborate on social psychological theories of self and identity. Chapter 2 is a departure from identity theory research that typically examines positive, structural role identities (mother, student, worker, and the like). This is not a scope condition, but whether Stryker’s (1968, 1980) and Burke and colleagues’ (e.g., Burke and Tully 1977, Burke and Reitzes 1981, Burke and Stets 2009) concepts adequately predict more deviant identities or behavior is an empirical question. Chapter 2 demonstrated that, indeed, several of these important concepts apply to at least one stigmatized, non-role identity: the victim. The current study is a reminder that the complex, multifaceted self also contains identities without clear alters or social structural location which, nonetheless, can be measured in comparable ways. Findings also demonstrate that, despite the great importance of the control mechanism in identity theory for understanding distress, identity meanings can be used to directly predict mental health. Analyses of the survivor identity, however, were less predictive, and they complicate the concept of salience. The measures used of salience herein are the likelihood of discussing an identity with significant others and with new people. There are a variety of other ways in which a person can enact an identity—a woman can enact the survivor identity through her clothing, attendance at a protest, or an anonymous blog. Future research that expands measures of identity enactment across
situations, particularly in the realm of stigmatized identities and deviant behavior, would further contribute to identity theory’s applicability to victimized selves and beyond.

This dissertation also contributes to affect control theory and the affect control theory of self. Chapter 3 is the first test of the long-asserted idea that high levels of deflection are associated with the symptoms of post-traumatic stress: hyperarousal, avoidance, and intrusion (Boyle and McKinzie 2015, Francis 1997, 2003). By drawing from the trauma literature, particularly the concepts of memory fragmentation and dissociation, I provide a foundation for this affect control theory hypothesis. I also demonstrate that re-identification as a victim, an outcome of deflection, produces distress, while re-identification as a survivor does not. This suggests that there are “adaptive” ways one may re-identify after trauma, although future research is needed to understand the context in which one turns to a survivor identity rather than (or in addition to) a victim identity.

Chapter 3 hints at what one context might be—a history of childhood sexual abuse is positively associated with victim re-identification. Individuals enter every interaction with a somewhat stable, pre-established set of self-sentiments and expectations that shape their behavior and perception of events (MacKinnon and Heise 2010). Chapter 3’s findings beg the question: are participants with victimization histories actually re-identifying as a victim or is this identity already in their identity set? It could be that earlier abuses (even non-sexual ones) have become integrated into a more powerless, “victim”-like self; this self and aspect of autobiography becomes a “cognitive anchor” that colors self-attributions and traumatic stress differently than single-incident victimizations (Berntsen and Rubin 2006). This highlights a shortcoming of affect control
theory. Event simulations and thus, the theory’s predictions, as they are currently used, contain identities, not selves. Theoretical elaboration of how self-sentiments predict, modify, or combine with event identities has the potential to improve the theory’s predictive utility. Current research underway using Bayesian probability theory and examining the stability of meanings for identities within and outside established institutions is a fruitful step in this direction (Schroder, Hoey, and Rogers forthcoming).

The affect control theory of self (MacKinnon and Heise 2010, MacKinnon 2015) is an elaboration of affect control theory; it contains many of its strengths and addresses some of its weaknesses. While affect control theory centers on deflection and redefinition in events, the affect control theory of self explicates a higher order process—how the stable and complex self (persona) is composed of hundreds of identities and traits which predict emotion, behavior, and mental health. Chapter 4 is the first longitudinal test of the affect control theory of self. I also contribute to the theory by developing and testing the explanatory mechanism—identity’s link between self and self-esteem, self-efficacy, and depression.

The affect control theory of self has the potential to explain and trace both immediate and long-term self-challenges and identity shifts using a simple mathematical model. Exploring the theory longitudinally could provide hints at how individuals evolve, devolve, or grow from traumatic experiences. Utilizing panel data, experimental designs, or diary studies, future research should explore how individuals transition (or “segue”) from negative, devalued identities to more positive identities, thus improving feelings of worth and efficacy. Such research could reveal ways for both traumatized and non-
traumatized individuals to improve self-views and engage in behaviors that are less damaging to themselves and to others.

Such research could reveal other identities beyond the victim and survivor that are beneficial for coping with assault. The rape acknowledgment literature has revealed a host of labels and neutralizations women use when describing incidents that meet the legal definition of rape: miscommunication, bad hookup, seduction, sexual assault and the like (Boyle and McKinzie 2015, Harned 2005). Research has not demonstrated what other identities are available to women who are victimized (Hockett and Saucier 2015). Given the high, positive correlation of victim and survivor acknowledgment, and that almost fifteen percent of participants strongly disagreed that either term applied to them, open-ended, qualitative, and/or longitudinal research could demonstrate what—if any—identities are also available to victimized persons and how segues relate to well-being. Such studies would continue to extend the utility of the affect control theory of self and potentially improve the self-conceptualizations and circumstances of victim/survivors.

LIMITATIONS

This dissertation has several methodological and conceptual limitations. First, the cross-sectional nature of the study is of particular concern. While I am careful to avoid causal language in Chapters 2 and 3, this dissertation is premised on the conjecture that identity affects mental health. Conversely, it is quite plausible that it is the experience of heightened stress that leads a person to see herself or himself as a victim rather than vice versa. In fact, identity theory (along with other social psychological theories) would indeed predict a mutual process in which labels and emotion reinforce one another in a cyclical fashion. To partially address this limitation, I examined responses from the small
subsample of participants in this study who completed a follow-up survey five months later. In simple, bivariate analyses, post-traumatic stress, depression, and self-esteem at Wave 1 were not associated with acknowledgment at Wave 2, while acknowledgment as a victim, victim identity meanings, and victim salience at Wave 1 were associated with higher levels of depression and post-traumatic stress at Wave 2. This preliminary evidence suggests that the salience, endorsement, and self-labeling of the victim identity have predictive value for understanding mental health.

A second limitation is that the sample is considerably white, young, and consists of people enrolled in college. Historically, female college students’ non-enrolled peers (ages 18 to 24) have reported higher levels of sexual victimization (Langton and Sinozich 2014), yet studies of acknowledgment rarely use community samples (see Conoscenti and McNally 2006 and Littleton et al. 2008 for exceptions). Further investigation of non-college students would make findings more generalizable while highlighting areas of age, cultural, and class distinction. For example, because race and social class influence reactions to victims, these social statuses may also influence individuals’ perceptions of their own assaults (Donovan and Williams 2002, George and Martinez 2002, Nagel et al. 2005). A large-scale, more diverse sample is necessary to examine how social statuses—such as gender, sexual, racial, and religious identities—predict the endorsement of and combine with victim/survivor identities (Chapters 2 and 3) and positive/negative traits (Chapter 4) to affect mental health.

Third, like many studies of college student populations, this dissertation is affected by low response rates and high attrition rates. This hinders the generalizeability of these results and constricted my ability to conduct more sophisticated statistical tests to
examine mediation, moderation, and in particular, effects produced by the intersections of identities and social categories. Since women, and particularly women of color, and LGBTQA students are more likely to experience both sexual violence and psychological distress than men and heterosexual, cisgender students, it would be fruitful to examine potential intersectional effects on the self-actualization process and victim/survivor outcomes (e.g., Banks and Kohn-Wood 2002, 2007, Rosenfield and Mouzon 2012, Williams et al. 2005).

**IN CONCLUSION**

Mental health disorders and sexual violence impede college students’ healthy functioning, work habits, and relationships. They are two of the most pressing, intertwined social problems on today’s college campuses. This set of studies increases comprehension of this relationship and contributes to social psychological understandings of mental health by testing hypotheses in the context of both positive and stigmatized, non-role identities: the victim and the survivor. I explicitly test the effects of identity disruption and endorsement on psychological distress using affect control theory, a much-theorized but yet untested relationship, and how both self and identity relate to self-esteem, self-efficacy, and depression. The three studies of this dissertation, as a whole, demonstrate the important links between self, identity, and mental health among both victimized and non-victimized students. Whether the adoption of particular identities precipitates or is an outcome of feelings about the self and well-being measures is not known here, but given the nature of identity and control theories, it is likely that this process is self-reinforcing.
REFERENCES


Weitzman, Elissa R. 2004. “Poor Mental Health, Depression, and Associations with Alcohol Consumption, Harm, and Abuse in a National Sample of Young Adults in College.” *Journal of Nervous And Mental Disease* 192(4):269-277.


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<th>St. Dev.</th>
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<td>Physical resistance</td>
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<td>0.31</td>
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<td>Friend or acquaintance</td>
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*Participants could select multiple categories for race. Other category includes Native American, Asian Indian, Asian (e.g., Chinese, Filipino, Japanese), Pacific Islander.
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<th>Max.</th>
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<tr>
<td>Winner</td>
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<td>&quot;I am a victim.&quot;</td>
<td>3.82</td>
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<td>2.54</td>
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<td>8.0</td>
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Table 2.3: Regressing post-traumatic stress on acknowledgment and identity measures

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<tr>
<th></th>
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</tr>
<tr>
<td>Force</td>
<td>0.17</td>
<td>0.21</td>
<td></td>
<td>0.02</td>
<td>0.21</td>
<td>-0.07</td>
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</table>
| Injured                     | 0.83    | 0.24        | **      | 0.72        | 0.23    | **          | 0.52        | 0.22        | *
| Physical resistance        | -0.04   | 0.18        |         | 0.01        | 0.17    | -0.03       | 0.16        |
| Boyfriend or girlfriend    | -0.12   | 0.17        |         | -0.22       | 0.16    | -0.20       | 0.15        |
| Black                       | -0.06   | 0.28        |         | -0.21       | 0.26    | -0.24       | 0.25        |
| LGBTQA                      | 0.77    | 0.19        | ***     | 0.81        | 0.20    | ***         | 0.59        | 0.19        | **

**Salience**

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<tbody>
<tr>
<td>Victim</td>
<td>0.42</td>
<td>0.17</td>
<td>*</td>
<td>0.35</td>
<td>0.16</td>
<td>**</td>
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<tr>
<td>Survivor</td>
<td>0.29</td>
<td>0.15</td>
<td>†</td>
<td>0.23</td>
<td>0.14</td>
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**Commitment**

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<tbody>
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<td>Victim</td>
<td>-0.53</td>
<td>0.26</td>
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<td>0.10</td>
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<td>-0.09</td>
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**Identity Meanings**

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<tbody>
<tr>
<td>Victim</td>
<td>0.52</td>
<td>0.19</td>
<td>**</td>
<td>0.49</td>
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<tr>
<td>Survivor</td>
<td>0.46</td>
<td>0.18</td>
<td>*</td>
<td>0.40</td>
<td>0.17</td>
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**Acknowledgment**

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</thead>
<tbody>
<tr>
<td>&quot;I am a victim.&quot;</td>
<td></td>
<td></td>
<td></td>
<td>0.13</td>
<td>0.04</td>
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<tr>
<td>&quot;I am a survivor.&quot;</td>
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Adjusted R²

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<td>0.24</td>
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Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 2.4: Regressing depression on acknowledgment and identity measures

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<tbody>
<tr>
<td>Force</td>
<td>0.08</td>
<td>0.22</td>
<td>-0.11</td>
<td>0.18</td>
<td>-0.09</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.25</td>
<td>0.00</td>
<td>0.20</td>
<td>0.00</td>
<td>0.21</td>
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<tr>
<td>Physical resistance</td>
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<td>0.26</td>
<td>0.15†</td>
<td>0.28</td>
<td>0.15†</td>
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<td>Boyfriend or girlfriend</td>
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<td>-0.01</td>
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<td>-0.22</td>
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**Salience**

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**Commitment**

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**Identity Meanings**

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**Acknowledgment**

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<td>0.04</td>
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<td>0.03</td>
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Adjusted $R^2$  0.06  0.46  0.45

Note: † p < .10; * p < .05, ** p < .01, *** p < .001
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<td>0.49</td>
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**Salience**

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<td></td>
</tr>
<tr>
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<td>0.12 †</td>
<td></td>
<td>-0.21</td>
<td>0.12 †</td>
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**Commitment**

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<tbody>
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<td>0.21</td>
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<td>-0.17</td>
<td>0.21</td>
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</tr>
<tr>
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<td>0.08</td>
<td></td>
<td>0.04</td>
<td>0.09</td>
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</tr>
</tbody>
</table>

**Identity Meanings**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim</td>
<td>-0.50</td>
<td>0.15 **</td>
<td></td>
<td>-0.51</td>
<td>0.15 **</td>
<td></td>
</tr>
<tr>
<td>Survivor</td>
<td>0.40</td>
<td>0.14 **</td>
<td></td>
<td>0.38</td>
<td>0.14 *</td>
<td></td>
</tr>
</tbody>
</table>

**Acknowledgment**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I am a victim.&quot;</td>
<td></td>
<td></td>
<td>-0.02</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I am a survivor.&quot;</td>
<td></td>
<td></td>
<td>0.03</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adjusted R²         | 0.06    | 0.54    | 0.53    |         |         |         |

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 3.1: EPA profiles for identities used in calculating identity deflection

<table>
<thead>
<tr>
<th>Identity</th>
<th>Perc. of Sample</th>
<th>Concept used from Georgia Dictionary</th>
<th>Evaluation</th>
<th>Potency</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girlfriend</td>
<td>30%</td>
<td>Girlfriend</td>
<td>1.93</td>
<td>1.15</td>
<td>1.17</td>
</tr>
<tr>
<td>Ex-girlfriend</td>
<td>8%</td>
<td>Ex-girlfriend</td>
<td>-1.00</td>
<td>0.08</td>
<td>0.79</td>
</tr>
<tr>
<td>Date</td>
<td>9%</td>
<td>Date</td>
<td>2.64</td>
<td>1.87</td>
<td>1.48</td>
</tr>
<tr>
<td>Friend</td>
<td>18%</td>
<td>Friend</td>
<td>3.29</td>
<td>2.31</td>
<td>1.20</td>
</tr>
<tr>
<td>Family member</td>
<td>16%</td>
<td>Niece</td>
<td>2.38</td>
<td>-0.47</td>
<td>0.86</td>
</tr>
<tr>
<td>Family friend</td>
<td>6%</td>
<td>Young friend</td>
<td>2.67</td>
<td>2.03</td>
<td>2.02</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>5%</td>
<td>Acquaintance</td>
<td>1.25</td>
<td>-0.15</td>
<td>-0.12</td>
</tr>
<tr>
<td>Classmate</td>
<td>6%</td>
<td>Classmate</td>
<td>1.07</td>
<td>0.06</td>
<td>0.38</td>
</tr>
<tr>
<td>Co-worker</td>
<td>2%</td>
<td>Co-worker</td>
<td>1.52</td>
<td>0.11</td>
<td>0.56</td>
</tr>
<tr>
<td>Employee</td>
<td>2%</td>
<td>Employee</td>
<td>1.23</td>
<td>-0.37</td>
<td>0.42</td>
</tr>
<tr>
<td>Unknown person</td>
<td>0%</td>
<td>Stranger</td>
<td>-0.03</td>
<td>-0.13</td>
<td>-0.32</td>
</tr>
</tbody>
</table>
Table 3.2: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-traumatic stress</td>
<td>39.80</td>
<td>18.96</td>
</tr>
<tr>
<td>Transient Impressions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>-2.17</td>
<td>1.53</td>
</tr>
<tr>
<td>Potency</td>
<td>-2.40</td>
<td>1.56</td>
</tr>
<tr>
<td>Activity</td>
<td>-1.84</td>
<td>1.59</td>
</tr>
<tr>
<td>Identity deflection</td>
<td>46.08</td>
<td>25.19</td>
</tr>
<tr>
<td>I am a victim</td>
<td>4.01</td>
<td>2.45</td>
</tr>
<tr>
<td>I am a survivor</td>
<td>4.62</td>
<td>2.54</td>
</tr>
<tr>
<td>Vaginal penetration</td>
<td>0.59</td>
<td>0.49</td>
</tr>
<tr>
<td>Perpetrator force</td>
<td>0.38</td>
<td>0.49</td>
</tr>
<tr>
<td>Physical resistance</td>
<td>0.53</td>
<td>0.50</td>
</tr>
<tr>
<td>Injured</td>
<td>0.17</td>
<td>0.38</td>
</tr>
<tr>
<td>Incapacitated</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Number of months</td>
<td>22.80</td>
<td>19.30</td>
</tr>
<tr>
<td>Childhood sexual abuse</td>
<td>0.09</td>
<td>0.28</td>
</tr>
<tr>
<td>White</td>
<td>0.91</td>
<td>0.29</td>
</tr>
<tr>
<td>Age</td>
<td>20.33</td>
<td>1.58</td>
</tr>
</tbody>
</table>
Table 3.3: OLS regression predicting identity deflection

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal penetration</td>
<td>0.97</td>
<td>4.34</td>
</tr>
<tr>
<td>Perpetrator force</td>
<td>13.33</td>
<td>5.81 *</td>
</tr>
<tr>
<td>Physical resistance</td>
<td>-2.01</td>
<td>4.90</td>
</tr>
<tr>
<td>Injured</td>
<td>13.03</td>
<td>6.46 *</td>
</tr>
<tr>
<td>Incapacitated</td>
<td>5.71</td>
<td>4.36</td>
</tr>
<tr>
<td>Number of months</td>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>Childhood sexual abuse</td>
<td>0.34</td>
<td>7.48</td>
</tr>
</tbody>
</table>

Adjusted R2                     | 0.09  |

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 3.4: Ordinal logistic regression predicting "victim" and "survivor"

<table>
<thead>
<tr>
<th></th>
<th>Victim OR</th>
<th>Victim OR</th>
<th>Survivor OR</th>
<th>Survivor OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal penetration</td>
<td>1.06</td>
<td>0.95</td>
<td>1.35</td>
<td>1.21</td>
</tr>
<tr>
<td>Physical force</td>
<td>1.93</td>
<td>1.49</td>
<td>1.09</td>
<td>0.82</td>
</tr>
<tr>
<td>Physical resistance</td>
<td>1.22</td>
<td>1.32</td>
<td>2.30 *</td>
<td>2.62 *</td>
</tr>
<tr>
<td>Injured</td>
<td>2.76 *</td>
<td>2.43 †</td>
<td>2.84 *</td>
<td>2.07 *</td>
</tr>
<tr>
<td>Incapacitated</td>
<td>0.81</td>
<td>0.72</td>
<td>0.83</td>
<td>0.71</td>
</tr>
<tr>
<td>Number of months</td>
<td>1.00</td>
<td>1.00</td>
<td>1.02 *</td>
<td>1.02 †</td>
</tr>
<tr>
<td>Childhood sexual abuse</td>
<td>4.01 *</td>
<td>4.34 *</td>
<td>1.55</td>
<td>1.61</td>
</tr>
<tr>
<td>Identity deflection</td>
<td>1.02 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McFadden's R2</td>
<td>0.05</td>
<td>0.07</td>
<td>0.05</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 3.5: OLS regression predicting post-traumatic stress

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal penetration</td>
<td>0.29</td>
<td>0.17 †</td>
<td>0.28</td>
<td>0.17 †</td>
<td>0.24</td>
<td>0.16</td>
</tr>
<tr>
<td>Physical force</td>
<td>0.26</td>
<td>0.23</td>
<td>0.14</td>
<td>0.23</td>
<td>0.02</td>
<td>0.22</td>
</tr>
<tr>
<td>Physical resistance</td>
<td>0.16</td>
<td>0.19</td>
<td>0.18</td>
<td>0.19</td>
<td>0.09</td>
<td>0.18</td>
</tr>
<tr>
<td>Injured</td>
<td>0.60</td>
<td>0.26 *</td>
<td>0.48</td>
<td>0.26 †</td>
<td>0.42</td>
<td>0.24 †</td>
</tr>
<tr>
<td>Incapacitated</td>
<td>0.11</td>
<td>0.17</td>
<td>0.06</td>
<td>0.17</td>
<td>0.10</td>
<td>0.16</td>
</tr>
<tr>
<td>Number of months</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Childhood sexual abuse</td>
<td>0.88</td>
<td>0.30 **</td>
<td>0.88</td>
<td>0.29 **</td>
<td>0.71</td>
<td>0.27 *</td>
</tr>
<tr>
<td>Identity deflection</td>
<td>0.01</td>
<td>0.00 *</td>
<td>0.01</td>
<td>0.00</td>
<td>0.13</td>
<td>0.04 **</td>
</tr>
<tr>
<td>&quot;I am a victim&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>&quot;I am a survivor&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eta-Squared 0.17 0.21 0.30

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.1: Ordinal logistic regression of trait distance on self-ratings on traits

<table>
<thead>
<tr>
<th>Wave 1 (N=652)</th>
<th>Trait Distance on Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
</tr>
<tr>
<td><strong>Positive traits</strong></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td>3.56</td>
</tr>
<tr>
<td>Responsible</td>
<td>3.35</td>
</tr>
<tr>
<td>Hardworking</td>
<td>3.20</td>
</tr>
<tr>
<td>Brave</td>
<td>3.18</td>
</tr>
<tr>
<td>Confident</td>
<td>2.98</td>
</tr>
<tr>
<td>Energetic</td>
<td>2.90</td>
</tr>
<tr>
<td>Stable</td>
<td>2.78</td>
</tr>
<tr>
<td>Strong</td>
<td>2.47</td>
</tr>
<tr>
<td><strong>Negative traits</strong></td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Antisocial</td>
<td>-1.65</td>
</tr>
<tr>
<td>Anxious</td>
<td>-1.70</td>
</tr>
<tr>
<td>Stupid</td>
<td>-2.31</td>
</tr>
<tr>
<td>Sad</td>
<td>-2.37</td>
</tr>
<tr>
<td>Hurt</td>
<td>-2.66</td>
</tr>
<tr>
<td>Unhealthy</td>
<td>-2.72</td>
</tr>
<tr>
<td>Helpless</td>
<td>-2.74</td>
</tr>
<tr>
<td>Unmotivated</td>
<td>-3.08</td>
</tr>
</tbody>
</table>

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.1: Ordinal logistic regression of trait distance on self-ratings on traits (continued)

<table>
<thead>
<tr>
<th>Wave 2 (N=137)</th>
<th>Positive traits</th>
<th>Negative traits</th>
<th>Trait Distance on Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>P</td>
<td>A</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>3.23</td>
<td>3.24</td>
<td>0.09</td>
</tr>
<tr>
<td>Intelligent</td>
<td>3.07</td>
<td>3.03</td>
<td>0.54</td>
</tr>
<tr>
<td>Self-confident</td>
<td>3.03</td>
<td>2.99</td>
<td>0.98</td>
</tr>
<tr>
<td>Effective</td>
<td>2.94</td>
<td>2.90</td>
<td>1.00</td>
</tr>
<tr>
<td>Determined</td>
<td>2.87</td>
<td>2.90</td>
<td>1.06</td>
</tr>
<tr>
<td>Competent</td>
<td>2.85</td>
<td>2.86</td>
<td>0.68</td>
</tr>
<tr>
<td>Imaginative</td>
<td>2.81</td>
<td>2.60</td>
<td>0.56</td>
</tr>
<tr>
<td>Communicative</td>
<td>2.71</td>
<td>2.69</td>
<td>1.31</td>
</tr>
<tr>
<td>Spacey</td>
<td>-0.57</td>
<td>-1.05</td>
<td>-1.78</td>
</tr>
<tr>
<td>Passive</td>
<td>-0.82</td>
<td>-1.45</td>
<td>-2.01</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>-1.07</td>
<td>-1.56</td>
<td>-2.03</td>
</tr>
<tr>
<td>Timid</td>
<td>-1.10</td>
<td>-2.12</td>
<td>-1.93</td>
</tr>
<tr>
<td>Naïve</td>
<td>-1.15</td>
<td>-1.75</td>
<td>-1.13</td>
</tr>
<tr>
<td>Submissive</td>
<td>-1.35</td>
<td>-1.90</td>
<td>-2.02</td>
</tr>
<tr>
<td>Aimless</td>
<td>-1.62</td>
<td>-2.06</td>
<td>-1.59</td>
</tr>
<tr>
<td>Absentminded</td>
<td>-1.76</td>
<td>-1.73</td>
<td>-1.75</td>
</tr>
</tbody>
</table>

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.2: Regressing self-esteem on self-sentiments and traits

<table>
<thead>
<tr>
<th>Wave 1</th>
<th>Wave 1 Self-Esteem</th>
<th>Wave 2 Self-Esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Evaluation</td>
<td>0.26 ***</td>
<td>0.16 ***</td>
</tr>
<tr>
<td>Self-Potency</td>
<td>0.17 ***</td>
<td>0.04 †</td>
</tr>
<tr>
<td>Self-Activation</td>
<td>0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td>Positive Traits</td>
<td>0.51 ***</td>
<td>0.14</td>
</tr>
</tbody>
</table>

**Wave 2**

Self-Evaluation | 0.24 *** | NS |
Self-Potency | -0.02 | |
Self-Activation | 0.08 * | NS |
Positive Traits | 0.21 ** | |

**Controls**

Wave 1 Self-Esteem | 0.51 *** | 0.48 *** |
Male | 0.01 | 0.05 | -0.08 | -0.01 |
White | -0.04 | -0.12 t | 0.03 | 0.01 |

Adj. R2 | 0.30 | 0.43 | 0.44 | 0.56 |

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.3: Regressing self-efficacy on self-sentiments and traits

<table>
<thead>
<tr>
<th>Wave 1</th>
<th>Wave 1 Self-Efficacy</th>
<th>Wave 2 Self-Efficacy</th>
<th>Wave 2 Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Prop. Mediated by Positive Traits</td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>0.10 ***</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Self-Potency</td>
<td>0.21 ***</td>
<td>0.10 ***</td>
<td>66% ***</td>
</tr>
<tr>
<td>Self-Activation</td>
<td>0.04 *</td>
<td>-0.01</td>
<td></td>
</tr>
<tr>
<td>Positive Traits</td>
<td>0.44 ***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Wave 2**
- Self-Evaluation: 0.08
- Self-Potency: 0.03
- Self-Activation: 0.02
- Positive Traits: 0.23 **

**Controls**
- Wave 1 Self-Efficacy: 0.40 *** 0.37 ***
- Male: 0.12 t 0.16 **
- White: 0.07 0.01
- Adj. R2: 0.26 0.38 0.42 0.48

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.4: Regressing depression on self-sentiments and traits

<table>
<thead>
<tr>
<th></th>
<th>Wave 1 Depression</th>
<th>Wave 2 Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>Coef.</td>
<td>Coef.</td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>-0.21 ***</td>
<td>-0.08 **</td>
</tr>
<tr>
<td>Self-Potency</td>
<td>-0.19 ***</td>
<td>-0.06 *</td>
</tr>
<tr>
<td>Self-Activation</td>
<td>-0.05 *</td>
<td>-0.01</td>
</tr>
<tr>
<td>Negative Traits</td>
<td>0.58 ***</td>
<td></td>
</tr>
</tbody>
</table>

Wave 2
Self-Evaluation
Self-Potency
Self-Activation
Negative Traits

Controls
Wave 1 Depression
Male
White
Adj. R2

0.59 *** 0.57 ***

0.28 0.44

0.46 0.51

Note. † p < .10; * p < .05, ** p < .01, *** p < .001
Table 4.5: Regressing anxiety on self-sentiments and traits

<table>
<thead>
<tr>
<th>Wave 1</th>
<th>Wave 2 Anxiety</th>
<th>Wave 2 Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 Coef.</td>
<td>Model 2 Coef.</td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>-0.12 *</td>
<td>-0.09</td>
</tr>
<tr>
<td>Self-Potency</td>
<td>-0.10 t</td>
<td>-0.06</td>
</tr>
<tr>
<td>Self-Activation</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Negative Traits</td>
<td>0.12</td>
<td>0.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wave 2</th>
<th>Wave 2 Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>-0.18 *</td>
</tr>
<tr>
<td>Self-Potency</td>
<td>-0.11</td>
</tr>
<tr>
<td>Self-Activation</td>
<td>0.05</td>
</tr>
<tr>
<td>Negative Traits</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controls</th>
<th>Wave 2 Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>-0.08</td>
</tr>
<tr>
<td>White</td>
<td>-0.27</td>
</tr>
</tbody>
</table>

Adj. R2 0.06 0.07 0.12 0.13

Note. † p < .10; * p < .05, ** p < .01, *** p < .001