

Sexual Assault and Identity Disruption: A Sociological Approach to Posttraumatic Stress

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Abstract

Violence against women and mental illness are two of the most pressing issues in higher education. Despite decades of research, it is not entirely clear how subjective perceptions of victimization events shape distress. The current study integrates trauma perspectives and a symbolic interactionist approach to demonstrate how identity disruption and the violation of cultural meanings for identities leads to posttraumatic stress. In an online survey of female and non-cisgender college students at a southeastern public university, the identity disruption produced by sexual assault is positively associated with posttraumatic stress; this relationship is partially explained by re-identifying oneself as a “victim,” an identity that is considered deviant and powerless in U.S. society. The current study illuminates the relationships between sexual assault, stigmatized identities, and mental health while addressing sociological questions about the cultural meanings and disruption of identities through traumatic interactions.

Keywords

posttraumatic stress disorder, identity, trauma, stigma, sexual violence

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 (Tjaden and Thoennes 1998). The experience of rape has many physical, psychological, and interpersonal consequences. These include injury, unwanted pregnancy, anxiety and depression, substance abuse, and relationship problems (Epstein et al. 1998; Frank and Anderson 1987; Holmes et al. 1996; Kilpatrick et al. 1989; Miller, Williams, and Bernstein 1982; Petrak and Hedge 2002; Shapiro and Schwarz 1997). Posttraumatic stress (PTSD) and dissociative disorders are among the most common consequences linked to rape (Astin, Lawrence, and Foy 1993). The majority of victims of rape meet the criteria for 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, mood or anxiety disorders, and avoidance. When experienced for a prolonged time period, these symptoms become generalized and dysfunctional (Weaver and Clum 1995). Severe and lingering distress are often exhibited in dissociative disorders, which consist of amnesia, depersonalization, derealization, identity confusion, and identity alteration.

Decades of research have established a variety of factors that influence PTSD, but less is known about how identity processes inform these experiences (e.g., Ullman et al. 2007). Sociology has a long tradition of examining the importance of

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identity for predicting not only behavior but psychological states (e.g., Burke 1991; Thoits 1991, 2013). The current study follows in this tradition by examining both how trauma *disrupts identities* and how the identities used to describe oneself in trauma's aftermath *shape distress*. 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 is not resolved or is resolved in a way that further damages one's identity, PTSD—intrusion, hyperarousal, and avoidance—may persist.

To develop a sociological understanding of the impact of violence and identity on posttraumatic stress, I frame neurobiological, psychological understandings of trauma within the concepts and propositions of affect control theory (Heise 1979, 2007; MacKinnon 1994; Smith-Lovin and Heise 1988). This work follows in a symbolic interactionist tradition that examines the impact of negative events, such as the diagnosis of mental illness, on individuals' identities and outcomes while introducing a formal theory that links victimization and mental illness (Lively and Smith 2011). Affect control theory (ACT) has its foundations in classic symbolic interactionism, which construes social experience as a navigation and negotiation of shared cultural meanings (e.g., Goffman 1959; Mead 1934). ACT, however, is unique in its mathematical representation of these cultural meanings and its equations that calculate to what extent interactions challenge these cultural meanings (e.g., Heise 2007). Cultural meanings for identities and behaviors (*fundamental sentiments*) and situational impressions of interactants and their behavior (*transient impressions*) are measured in the same three-dimensional space: evaluation, potency, and activity. The distance between fundamental sentiments and transient impressions is termed *deflection*. The theory predicts that when deflection is high, interactants are distressed, and they will redefine an aspect of the event to make sense of their experience. Thus, the theory demonstrates how surprising or traumatic experiences challenge cultural understandings of behaviors and identities and perceptions of ourselves, causing not only negative emotion but cognitive confusion and reconceptualization of an event.

Despite its clear connections between identity and emotion, affect control theory has been underutilized in pursuits that reveal the identity-disrupting nature and labeling of mental illness

(Lively and Smith 2011). A few exceptions exist. In particular, Kroska and Harkness (2006, 2008, 2011) found that individuals with psychiatric disorder diagnoses rate themselves on evaluation, potency, and activity (EPA) dimensions closely to EPA ratings of "a mentally ill person." They also utilized the theory's formal equations and modified labeling theory to predict how individuals' EPA ratings and diagnostic category shape their coping behaviors (concealment, education, withdrawal) (Link et al. 1989). Kroska and Harkness argue that a psychiatric diagnosis makes the stigmatized sentiments of "mentally ill" self-relevant, shaping self-views and behavior.

Researchers have also linked ACT processes to psychological distress. In qualitative studies, L. Francis (1997) and Boyle and McKinzie (2015) found that after a stressful, deflection-producing event (the death or divorce of a spouse and a sexual assault, respectively), re-identification of the self and/or others eases distress. They both argue that the deflection produced by seriously distressing events, however, is difficult or nearly impossible to completely resolve. The current study draws on their arguments, that if deflection is severe enough, it can impair individuals' health. In particular, I build on Boyle and McKinzie (2015), who use narratives and computer simulations to demonstrate that sexual assault produces feelings of powerlessness, negative self-attributions, shock, and high levels of deflection. These qualitative analyses, however, do not explicitly calculate individuals' levels of deflection. Much of the symbolic interactionist literature on illness and identity utilizes narrative accounts, though the utilization of formal theories and quantitative methods stands to improve understanding and prediction of individuals' self-conceptions and experiences of illness (Lively and Smith 2011).

Given the high frequency of violence against women on college campuses, its negative effect on mental health, and both of their effects on immediate and long-term outcomes, this topic warrants further examination (e.g., Golding 1999; Kaysen et al. 2014; Kilpatrick, Resnick, and Veronen 1981). The goal of the current study is to test the effects of deflection on posttraumatic stress in the context of sexual assault. In a sample of college students, deflection is measured as the distance between the culturally agreed on meanings for identities involved in a sexual assault (e.g., "girlfriend," "friend") and the situational impressions produced by the assault. This identity

deflection represents the amount of disruption produced when cultural expectations for positively evaluated identities are violated by sexual aggression. To ground my hypotheses, I summarize research on immediate neurobiological responses to rape, with a focus on PTSD, and then integrate these studies with the propositions and concepts of ACT. I conclude with a broader theoretical discussion of identity and distress.

BACKGROUND AND HYPOTHESES

Historically, the study of trauma has waxed and waned since its psychoanalytic “discovery” in women in the nineteenth 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. The symptoms of sexual abuse mirrored those that would later be documented among both men returning from World War II who were experiencing “shell shock” and women in the 1970s who were diagnosed with rape trauma syndrome (Herman 1997). For both victims of sexual abuse and combat veterans, the parallel experiences of private abuse and political atrocity produce intensified, situationally inappropriate emotion, numbness, disability, and dissociation.

It is common for individuals to have out-of-body experiences during a traumatic 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 several neurobiological explanations for this phenomenon. 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 (Campbell 2012). This includes opioids, which prevent pain; cortisol, which provides energy; and catecholamines, which instigate a flight, fight, or freeze response (termed *tonic immobility*). The hippocampus, which is responsible for encoding experiences into memory, is very sensitive to the hormones released during an attack (Campbell 2012). When 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. 1996; Koss, Tramp, and Gidycz 1995; Rubin, Boals, and Berntsen 2008). While accurate memories can be fully reorganized

and recalled with time, memory fragmentation is exacerbated by alcohol use (Campbell 2012). Given the fact that the majority of college sexual assaults occur when the victim is incapacitated, mostly due to alcohol, it is possible that memories may never be fully recalled in many cases (Krebs et al. 2007).

Scholars have traditionally argued that a lack of integration of memories produces PTSD (e.g., Horowitz 1986; for a review, see Dalgleish 2004), but Berntsen and Rubin (2006) offer an alternative view. They highlight that the interruption of schemata can actually enhance memory due to its uniqueness and strong affective quality. They draw from availability heuristics that demonstrate “rare, surprising and intensely emotional” events (p. 419) are actually highly accessible (e.g., Rubin and Kozin 1984). They argue that trauma produces PTSD not because of a lack of integration but because the memory becomes a “cognitive reference point for the organization of autobiographical knowledge” (Berntsen and Rubin 2006:418; Ehlers and Clark 2000). They developed the Centrality of Event Scale that contains items such as “this event has become part of my identity” (Berntsen and Rubin 2006:418). The authors find when a traumatic event becomes central to identity, there is greater posttraumatic stress, dissociation, and anxiety. In sum, Berntsen and Rubin (2006) offer a theoretical argument and empirical evidence that links trauma, identity, and PTSD.

Trauma as Identity Deflection

To cognitive psychologists, “unusual, unexpected, and extremely emotional events” are conceptualized as a violation of schemata (Berntsen and Rubin 2006:417). Because trauma challenges self-narratives, it can be understood in the context of identity disruption as described by social psychologists; in particular, this process is described by ACT (Heise 1979, 2007; MacKinnon 1994; Smith-Lovin and Heise 1988). When a person enacts an identity, there are a host of culturally agreed on expectations attached to how that person should behave and how he or she should be treated. In ACT, cultural expectations are measured along three dimensions, each on a scale of -4.3 to 4.3 : evaluation (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, Suci, and Tannenbaum's (1967) 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 (fundamental) sentiments we have for behaviors, emotions, and settings (MacKinnon 1994). We can make predictions about what kinds of acts, feelings, and places will confirm an identity and which will disrupt it. Affect control theory's equations calculate the distance between the fundamental sentiments (EPA profile) of identities and how our impressions change due to the event. The result of this equation is termed *deflection*, and levels of deflection are categorized according to their magnitude. For instance, a citizen murdering a citizen and a child being molested produces deflections of 25.5 and 28.4, respectively—scores that reflect a situation that is so deflecting and surprising that upon hearing about it, people would consider this event *impossible* (Heise 2013). Mathematically, these deflection scores are nearly off the scale; conceptually, such events are outside the realm of possibility.

Unusual and disturbing events—like sexual assault—produce disturbingly high levels of deflection (Boyle and McKinzie 2015). I argue that deflection—the discrepancy between cultural understandings of identities enacted and the impressions produced by a disturbing experience—coincides with symptoms recognized as PTSD. The distressed person vacillates between avoidance of the disturbing memory and persistent ruminating thoughts, the mind's attempt to reframe the event to integrate the memory into a coherent life story. Because deflection is confusing and stressful, individuals will simultaneously attempt to resolve it yet also avoid it to make better sense of themselves and their worlds. Based on these proposed parallels between posttraumatic stress and deflection, I expect the following:

Hypothesis 1: There is a positive relationship between deflection and the posttraumatic stress produced by sexual assault.

In other words, the more the fundamental sentiments of an identity (e.g., girlfriend) diverges from transient impressions produced by the

experience, the more likely the person is to experience hyperarousal, intrusion, and avoidance.

Re-identification and Distress

Deflection is distressing and disruptive to a person's self- and world meaning. To decrease deflection, a person will redefine an element of the event in order for it to make more sense. Boyle and McKinzie (2015) find that in the context of sexual victimization, it is common for individuals to re-identify perpetrators' identities or their own identities to relieve negative emotion and restore order to their worldviews. For instance, using our previous example, child molestation is a highly deflective event. For this traumatic experience to make sense, the theory predicts that the child might see herself as (or be perceived by others 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. While these are certainly negative self-attributions, they make a person's experience more consistent with cultural expectations. Because re-identification is more common in highly deflecting events (MacKinnon 1994), I predict:

Hypothesis 2: There is a positive relationship between deflection and re-identification as a "victim."

I also expect that the victim identity will have consequences for an individual's posttraumatic stress levels. As already stated, I expect there to be a direct relationship between identity deflection and posttraumatic stress given the destabilizing and distressing nature of deflection (Hypothesis 1). If this deflection is resolved through re-identification 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 "victim" will still experience increased posttraumatic stress. Given the stigmatization of the "ictim" in U.S. culture (Dunn 2005) and the fact that the victim identity has a highly negative potency (powerfulness) profile ($E = -.16$, $P = -2.57$, $A = -1.50$), I expect:

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

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

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

Although ACT 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 fundamental sentiments offer a variety of potential outcomes rather than definitive predictions. It is reasonable to expect that not all women will redefine themselves as victims due to sexual assault. This is supported by three decades of research that demonstrate the various labels women import to resist using to the term *victim of rape* (Harned 2005; see Wilson and Miller 2016). 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, when rare and unexpected traumatic events occur, they disrupt the typical life course pattern and may be seen as a major turning point (Berntsen and Rubin 2004). If the person takes on the "trauma victim" identity, she is likely to experience "isolation and stigmatization". 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 literatures 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, Rhatigan, and Axson 2007). If a traumatic memory became integrated into a life story but she cast herself as a survivor that overcame rather than victim of circumstance, it is possible that integration would not necessarily produce distress.

Due to the cultural emphasis on naming oneself a survivor rather than a victim (e.g., Dunn 2005; Leisenring 2006), it is quite possible that women might instead come to define themselves as survivors. A survivor who overcomes is a viable discourse a woman can draw on to make sense of a deflecting victimization. I predict:

Hypothesis 5: There is a positive relationship between deflection produced by the event and re-identification as a survivor.

Finally, perceptions of worth and power are evidenced by the EPA profile of a survivor

($E = 2.79$, $P = 2.80$, $A = .66$). Due to the more positive sentiments held for survivors in society and the fact that feelings of powerlessness are central to PTSD, I predict:

Hypothesis 6: There is no relationship between re-identification as a survivor and distress.

By examining these relationships, the current study will delineate if and in what ways identity and its disruption lead to psychological distress while demonstrating that how the person defines herself partially explains this relationship.

DATA AND METHODS

After receiving approval from the Institutional Review Board, undergraduate students at a large public university in the southeastern United States were recruited for participation in the "College Identity Study" via email. Because they are at a higher risk for sexual victimization than men, only participants identifying as women or non-cisgender (e.g., transgender, agender) are included in this study (Cantor et al. 2015). Participants were 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 link to the consent form 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.

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. Those who indicated an assault history were asked to respond to assault and post-assault questions in regard to their most recent sexual assault. Of the 584 participants, about 28 percent had experienced sexual assault 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. Most of these cases were lost due to missing data on posttraumatic stress, which was at the end of the survey. Participants with missing data or without missing data did not differ significantly on age, sexual orientation,

or gender identity. While selection bias is always of concern for victimization surveys, following best practices, the survey was titled the “College Identity Study,” and sexual assault was not immediately identified as a core purpose of the study (Krebs et al. 2016). The victimization subsample examined here did not differ from the larger sample in terms of age, sexual orientation, or academic year, though cisgender females were statistically more likely to have been sexually assaulted than non-cisgender participants.

Posttraumatic Stress

Participants completed the revised Impact of Events Scale (Christianson and Marren 2012), which is a measure of posttraumatic stress. Meta-analyses demonstrate the validity of this measure for understanding posttraumatic stress in a number of contexts, including sexual trauma (Sundin and Horowitz 2003). 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 their sexual assault. Items ranged from not at all (1) to extremely (5) and 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 *posttraumatic stress* ($\alpha = .95$). The average posttraumatic stress score was almost 20, a score that does not meet the criteria for diagnosis of PTSD. Nearly a third of participants would be of “clinical concern,” though they may only have some symptoms (Creamer, Bell, and Failla 2002). Twenty-two percent have a score of 33 or higher, which is the most widely cited cutoff for probable presence of PTSD (Weiss 2007).

Independent Variables

Identity Deflection. Typically, deflection is measured at the event level—it is the distance between the fundamental 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 sexual assault, in other words, how transient impressions differ from fundamental sentiments of the identity

enacted in the event. Several steps were taken to calculate identity deflection. After indicating that they were sexually assaulted at least once 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. First, I determined the identity of the perpetrator and selected counter-roles for the perpetrator to represent the participants’ identity at the time of the assault (e.g., girlfriend if she indicated the perpetrator was her boyfriend, friend if she said the perpetrator was a friend). Next, I gathered the *EPA profiles* (fundamental sentiments) for these identities from the Georgia dictionary (Robinson and Smith-Lovin 2016), an aggregate of EPA ratings collected from students at the University of Georgia (Table 1).

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 EPA dimensions: evaluation (good/nice to bad/awful), potency (little/powerless to big/powerful), and activity (fast/noisy/active to slow/quiet/inactive). In the second step, the distance between a participant’s identity in the event and the *transient impressions* produced by the event were calculated. The equation used (in the following) is drawn from the equation traditionally used to calculate deflection in ACT (Heise and Smith-Lovin 1981; Smith-Lovin 1987). This variable, *identity deflection* ($M = 46.08$), is a measure of how participants’ self-feelings during the event conflict with fundamental sentiments of identities they had expected to enact. Here, A_e is the fundamental evaluation sentiment for the identity enacted, and A_{e_1} is the transient evaluation impression produced by the event:

$$\text{Identity deflection} = (A_e - A_{e_1})^2 + (A_p - A_{p_1})^2 + (A_a - A_{a_1})^2.$$

Victim and Survivor Re-identification. 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 1 (strongly disagree) to 7 (strongly agree), and the

Table 1. Evaluation, Potency, and Activity (EPA) Profiles Used to Calculate Identity Deflection.

Identity	Percentage of Sample	Concept Used from Georgia Dictionary	Evaluation	Potency	Activity
Girlfriend	30	Girlfriend	1.93	1.15	1.17
Ex-girlfriend	8	Ex-girlfriend	-1.00	.08	.79
Date	9	Date	2.64	1.87	1.48
Friend	18	Friend	3.29	2.31	1.20
Family member	16	Niece	2.38	-.47	.86
Family friend	6	Young friend	2.67	2.03	2.02
Acquaintance	5	Acquaintance	1.25	-.15	-.12
Classmate	6	Classmate	1.07	.06	.38
Co-worker	2	Co-worker	1.52	.11	.56
Employee	2	Employee	1.23	-.37	.42
Unknown person	0	Stranger	-.03	-.13	-.32

Note. All EPA profiles are from the Georgia (2014) dictionary except for *date*, which was obtained from the Indiana dictionary (2002–2004) because this term was not in the 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, respectively. While this is not ideal, removal of participants who were assaulted by a family member or family friend would exclude nearly 22 percent of the sample, making it less representative of nonconsensual experiences.

order of these statements was randomized using Qualtrics randomization software.

Control Variables

Assault characteristic measures were included due to their association with PTSD. Respondents were asked whether the perpetrator used *physical force*, whether there was *vaginal penetration*, whether they were *injured* or used *physical resistance*, whether they were *incapacitated* (due to alcohol and/or drugs), and whether they engaged in sexual activity with an adult before age 14 (*childhood sexual abuse*). These are dichotomous variables and coded 1 if they answered affirmatively and 0 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

I begin hypothesis tests by estimating the relationship between identity deflection and re-identification. Because victim and survivor identification are ordinal variables, I use ordinal logistic regression analyses, which produces odds ratios. An odds ratio greater than 1 indicates an increase in

the odds of that independent variable having a positive effect on the dependent variable, and an odds ratio less than 1 indicates a negative relationship between the independent and dependent variable. Next, I use ordinary least squares (OLS) regression to test the effects of identity deflection and re-identification on PTSD. I conduct a series of Sobel-Goodman tests to examine mediation effects.

RESULTS

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) (Table 2). Less than a fifth of participants (17 percent) 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 9 percent reported engaging in sexual activity with an adult before age 14. Participants were more likely to agree with the statement “I am a survivor” ($M = 4.18$, $SD = 2.09$) regarding the incident than “I am a victim” ($M = 3.61$, $SD = 2.00$).

On average, participants reported feeling 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

Table 2. Sample Characteristics.

Variable	Mean	Standard Deviation
Post-traumatic stress	19.69	19.86
Transient impressions		
Evaluation	-2.17	1.53
Potency	-2.40	1.56
Activity	-1.84	1.59
Identity deflection	46.08	25.19
Victim re-identification	3.61	2.00
Survivor re-identification	4.18	2.09

	Percentage
Vaginal penetration	59
Perpetrator force	38
Physical resistance	53
Injured	17
Incapacitated	50
Childhood sexual abuse	9
Age	91

	Mean	Standard Deviation
Number of months	22.80	19.30
White	.91	.29
Age	20.33	1.58

46.08 (SD = 25.19). An event that produces deflection that is higher than 22 is considered an impossible event (Boyle and McKinzie 2015; Heise 2013). On average, assaults produced levels of deflection consistent with an impossible event, though for about 12 percent of participants, the deflection produced is 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) computer simulations of sexual assault, in which many events produced high levels of deflection and instigated redefinition of an aspect of the event—often her identity or that of the perpetrator.

Participants reported greater identity deflection when the perpetrator used force (e.g., held down or arms pinned down) and when they were injured during the incident (available on request). These factors, which are associated with levels of PTSD (Ullman et al. 2007), indicate sexual assault is more damaging to identity when there is physical violence or injury involved.

Victim and Survivor Re-identification

In the next set of analyses, I test ACT's redefinition principle (MacKinnon 1994), which states that re-identification is more likely when deflection levels are high. As hypothesized, identity deflection increases the odds of agreement with the statement "I am a victim" in relation to the incident, supporting Hypothesis 2 (OR = 1.02, $p < .01$) (Table 3). 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, enacting physical resistance makes rating oneself higher on survivor re-identification 2.6 times more likely ($p < .05$).¹ Re-identification as a survivor is also more likely when the assault occurred further in the past (OR = 1.02, $p < .05$), though this coefficient is only marginally significant ($p < .10$) when entering identity deflection into models (available on request).

Victimization history also has consequences for how a person defines oneself in response to sexual assault. 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).

Posttraumatic Stress

Next, I examine the effects of identity deflection and re-identification on posttraumatic stress (Table 4). By integrating understandings of PTSD and an ACT approach to identity disruption, I expected to find a positive relationship between identity deflection and posttraumatic stress (Hypothesis 1), which is supported ($\beta = .22$, $p < .05$) (Model 2). Even while controlling for assault characteristics, experiencing identity deflection during sexual assault produces various disrupting cognitive, affective, and physiological states. In fact, identity deflection partially explains the effect of assault characteristics on posttraumatic stress. The Sobel-Goodman mediation test reveals that 25 percent of the total effect of injury on posttraumatic stress is explained by identity deflection ($p < .05$), rendering the effect of injury nonsignificant. In other words, injury leads to posttraumatic

Table 3. Ordinal Logistic Regression Predicting Re-identification.

Variable	Victim		Survivor	
	Model 1	Model 2	Model 3	Model 4
Vaginal penetration	1.06	.95	1.35	1.21
Physical force	1.93	1.49	1.09	.82
Physical resistance	1.22	1.32	2.30*	2.62*
Injured	2.76*	2.43	2.84*	2.07
Incapacitated	.81	.72	.83	.71
Number of months	1.00	1.00	1.02*	1.02
Childhood sexual abuse	4.01*	4.34*	1.55	1.61
Identity deflection		1.02**		1.02**
McFadden's R ²	.05	.07	.05	.07

Note. Values are odds ratios.

* $p < .05$. ** $p < .01$ (two-tailed test).

Table 4. Ordinary Least Squares Regression Predicting Posttraumatic Stress.

Variable	Model 1	Model 2	Model 3
Vaginal penetration	.14(.17)	.14(.17)	.12(.16)
Physical force	.12(.23)	.07(.23)	.01(.22)
Physical resistance	.08(.19)	.09(.19)	.05(.18)
Injured	.23(.26)*	.18(.26)	.16(.24)
Incapacitated	.06(.17)	.03(.17)	.05(.16)
Number of months	.04(.00)	.04(.00)	.03(.00)
Childhood sexual abuse	.25(.30)**	.25(.29)**	.20(.27)*
Identity deflection		.22(.01)*	.11(.01)
Victim re-identification			.33(.04)**
Survivor re-identification			.05(.04)
R ²	.22	.26	.36
Adjusted R ²	.17	.21	.30

Note. Values are standardized regression coefficients with standard errors in parentheses.

* $p < .05$. ** $p < .01$ (two-tailed test).

stress in part because injury increases levels of identity deflection.

Next, in Model 3, I determine the relationship between re-identification as either a victim or survivor and posttraumatic stress. Both Hypotheses 3 and 6 are supported as victim re-identification is associated with an increase in posttraumatic stress ($\beta = .33, p < .01$), and survivor re-identification is not. Identity deflection and how one re-identifies oneself due to victimization predict whether individuals will experience posttraumatic stress. Sobel-Goodman mediation tests estimate that the statement "I am a victim" explains 30 percent to 43 percent of the effects of injury ($z = 2.89, p < .01$), childhood sexual abuse ($z = 2.11, p < .05$),

and identity deflection ($z = 3.14, p < .001$) on posttraumatic stress, the latter of which supports Hypothesis 4.² Identity deflection also partially explains the effect of injury on posttraumatic stress ($z = 2.24, p < .05$). Childhood sexual abuse, however, remains a strong predictor of posttraumatic stress, which is consistent with literature linking childhood sexual abuse with enduring experiences of psychological distress and mental illness (Chen et al. 2010).

DISCUSSION

Sexual assault is an unanticipated, highly emotional event that may disrupt the life course and

become central to one's identity, producing hyperarousal, avoidance, and intrusive thoughts (Berntsen and Rubin 2006). The current study integrates trauma and identity perspectives to further understand why some individuals experience greater levels of distress than others. Affect control theory explicates the theoretical mechanisms and concepts necessary to develop a formalized method of measuring the cultural meanings of identities, the self-impressions formed during a traumatic event, and how this translates into posttraumatic stress.

Along with previous researchers, I argue that deflection will produce ongoing, deleterious mental health disturbances if left unresolved (Boyle and McKinzie 2015; L. E. Francis 1997, 2003). Unlike Boyle and McKinzie (2015), who used victimization narratives and ACT's simulation software to deduce how women's assaults might produce deflection, the current study explicitly measures deflection in a survey of female, transgender, and agender college students. Identity deflection is the distance between the (1) culturally agreed on evaluation-potency-activity (EPA) ratings for identities commonly enacted during incidents of intimate partner violence or acquaintance rape (e.g., "girlfriend," "friend") and (2) the transient impressions produced by the assault. Identity deflection represents the amount of disruption produced when cultural expectations for positively evaluated identities are traumatically violated by sexual aggression.

As hypothesized, identity deflection is positively associated with PTSD. The stressful and meaning-disruptive nature of sexual assault leads an individual to be on alert for recurring incidents and to simultaneously ruminate on and avoid thoughts of this identity challenge. This relationship is partially explained by the fact that identity deflection increases the odds of identifying as a victim. Because 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 often comes in the form of modifying one's identity (Boyle and McKinzie 2015).

Identifying as a victim explains nearly a third of the variance explained in posttraumatic stress, while identifying as a survivor has no effect. In terms of ACT, if a person resolves the identity 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 posttraumatic stress, one might expect that a long-term transition to a survivor identity is possible over time. It is possible that therapeutic and positive interactions that lead one to the renormalization stage—in which self-blame and shame begin to resolve, the assault is no longer a focus of one's life, and a sense of control is regained—may coincide with *or cause* empowering identity shifts toward the survivor and away from the victim (Burgess and Holmstrom 1974). Future research should further draw from parallel literatures on illness and identity, which demonstrate individuals' ability to transform their understandings of self and experiences through self-reflection, connecting with similar others, and adopting more "positive," "buffering" identities—such as the survivor (Blumer 1969; Lively and Smith 2011).

The current study relies on cultural conceptions of both the "weak" victim and "strong" survivor, suggesting that integration of a traumatic memory produces PTSD in the context of "victimhood." But if *survivor* is added to the narrative, one may be less likely to suffer from hyperarousal, intrusive thoughts, and a desire to avoid thoughts about the incident. In no way does this imply that those who identify as victims have improperly defined themselves or have failed in their integration of trauma. 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 media, activists, and everyday language.

Implications for Theory

Historically, most research on violence against women has focused on the victim identity despite the fact that there is also a strong, pervasive survivor discourse available to women (Dunn 2005; Hockett and Saucier 2015). The current study demonstrates that victim and survivor identities

are not only tied to long-term posttraumatic stress but to the specific characteristics of an assault: Injury is associated with victim re-identification while physical resistance is associated with survivor re-identification. It is likely that both physical and social psychological processes emerge in response to being injured and to resistance that influence re-identification. There are a number of physiological reasons out of a person's control that influence whether or not she is injured and whether or not she fights back during an assault—the tactics of the perpetrator and tonic immobility, just to name a few (Abbey et al. 2004; Campbell 2012; Edwards et al. 2014).

An examination of the EPA ratings of both identities and the EPA profiles of a “hurt woman” and the behavior “fight” offers a potential explanation that links identity to assault characteristics—survivor is closer to fight than hurt and closer to fight than are victims; victims are closer to hurt than fight and closer to hurt than are survivors (C. Francis and Heise 2002). It may be that the immediate response (resistance) and consequences (injury) of an assault influence later self-conceptions, essentially pushing a person closer to identifying as a survivor or a victim. While high levels of event deflection lead one to re-identify and experience posttraumatic stress, *particular details* of the event shape *how* one re-identifies.

While these suggestions are consistent with an understanding of sexual trauma, they may be evidence of more general processes. When a person is an object of an event, in particular, the object of violence, she is more likely to see herself as a victim. This may be due to the deeply disempowering, potency-lowering effect of being an object-person unable to define the situation, unable to confirm her identity—*injury and being overpowered* are deeply discrepant from what we expect to be directed toward a girlfriend but more consistent with something that would happen to a victim. Meanwhile, engaging as an actor in resistance to another's attempts overpower her contributes to self-perceptions of survivorhood—findings consistent with discursive and empirical research on victim and survivor identities (Dunn 2005; Hockett and Saucier 2016). The deflecting event may not need be one of physical violence in order to instigate these low potency re-identifications but simply one in which an individual has little (or no) symbolic power to negotiate the terms of interaction.

Whether the processes demonstrated herein are applicable beyond sexual assault and the (perhaps artificial) victim/survivor dichotomy remains an empirical question. Affect control theory's mechanisms are not limited to experiences of sexual violence; future research on deflection, re-identification, and distress in other circumstances can further explicate whether the relationship between passivity and/or agency and self-perceptions are part of a broader theoretical process that shapes mental health. This is quite possible given the link between EPA ratings and behavior in power-imbalanced interactions and, in particular, between potency and dominance/submission and activity with intensity/passivity of social action (Scholl 2013).

Future research could explore these possibilities using various methods and investigate numerous phenomena. The study of trauma has focused greatly on childhood abuse, sexual abuse, and war or combat-related trauma (Herman 1997). Researchers have also used the Impact of Events Scale to assess stress related to a range of experiences, including injury, bereavement, and loss (Sundin and Horowitz 2003). Whether ACT is applicable beyond human-perpetrated crimes and to being the “victim” of illness, natural disaster, or the criminal justice system, for instance, is worth exploring. The method of investigation would depend on the type of trauma, but diary methods are one way to measure distress over time. Given that PTSD tends to dissipate, frequent and periodic data collection from a set of individuals may reveal what experiences resolve the deflection produced by their traumatic event and which experiences exacerbate their identity-related distress. Such studies would not only advance a sociological understanding of trauma and the utility of ACT but could aid in healing persons and communities.

Lastly, the current study's findings raise questions about how broader self-conceptualizations inform responses to and perceptions of events. In particular, it begs the question: Are participants with multiple victimization histories actually more likely to re-identify as a victim or is this identity *already* in their identity set? Individuals tend to have somewhat positive self-sentiments, which is fairly discrepant from the EPA profiles of victim and survivor (the average squared distance between participant self-sentiments and the EPA profiles of these identities are 25.58 and 13.31, respectively). Thus, we can be somewhat

assured that selecting victim or survivor in relation to their victimization event is a *re-identification* and not simply the acknowledgment of an identity that is already self-relevant. Still, longer term analysis of the relationship between self-sentiments, specific identity enactments, and behavior will shed light on these processes both generally and in the context of victimization.

Implications for Practice

Increased theoretical understanding of the mechanisms linking assault characteristics, cultural understandings of identity, and psychological distress can be helpful for practitioners. U.S. therapists and advocates are members of a society in which people devalue victims and praise survivors, which influences their behaviors toward and understanding of clients' narratives (Hockett and Saucier 2015). Although using the term *survivor* in therapeutic discourse is already a common practice (Dunn 2005), research on experiences with service providers rarely focuses on the complex and varied identities of clients (Hockett and Saucier 2015). Discussing the theoretically based cultural foundation and impact of using either victim or survivor language with practitioners, victims' advocates, and educators—and examining how these processes emerge during therapy—might influence (or improve) interactions and intervention response.

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). Acknowledgment that not only self-blame but the victim identity is more common when there is a history of childhood sexual abuse is also potentially useful for practitioners. It could be that earlier abuses have become integrated into a more powerless, "victim"-like self; this self and aspect of their 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 sexual assault victim/survivors (Messman-Moore and Long 2003), and how women identify themselves in discrete events may increase understanding of how distress becomes integrated into the self, shapes expectations for future events, and is expounded throughout the life course.

Limitations and Future Research

There are several methodological and conceptual concerns worth considering. First, given the small sample size, the results of mediation tests should be treated with caution, especially given the non-normal distribution of posttraumatic stress (see Fritz and MacKinnon 2007; Sobel 1982). Second, the sample is largely white (91 percent), cisgender (97 percent), heterosexual (80 percent), and located at a single large, public university. I am unable to deeply engage with the experiences of sexual and racial minorities or men or how the intersection of identities shapes psychological or labeling responses to sexual assault. While the exclusion of non-cisgender participants and controlling for sexual orientation does not change the results of hypothesis tests reported here, future survey research would benefit from examination of these processes in a larger, more representative student and non-student sample.

Third, re-identification is difficult to examine with survey methods, and the current study's procedure is imperfect. To have an explicit measure, one would have to be asked what identity he or she is enacting in a situation and then be asked immediately after the interaction what identity is now being enacted, which would be difficult to accomplish outside of a laboratory. Additionally, re-identification is limited to *victim* and *survivor*, and there may be other self-labels women use to understand their experiences. However, *victim* and *survivor* are the most frequently invoked identities in relation to sexual assault (Hockett and Saucier 2015), making them appropriate terms to study.

Despite these methodological issues and the challenges of measuring ACT's concepts with survey data, this is the first study to empirically collect data on the transient impressions produced by a deflecting event and directly connect them to psychological distress. While the use of computer simulation, vignettes, or qualitative data (e.g., Boyle and McKinzie 2015; L. E. Francis 1997;

Nelson 2006) are helpful for understanding deflection and redefinition processes, measuring identity deflection here establishes a means of quantitatively examining these processes. Survey methods are a conservative test of these processes as assaults have occurred months or even years in the past. Experimental or diary methods might best assess the validity of this relationship as selves, identities, and states are by no means inevitable or fixed. The life narrative is both subjective and subject to change as people cognitively make sense of their experiences—processes that are intertwined with emotional states and distress (L. E. Francis 1997, 2003). Longitudinal and in-depth exploration of how segues and shifts in life stories, in conjunction with the addition and removal of identities from the identity set, could reveal therapeutic, identity-based best practices and bolster sociology's potential for tracking changes in and empowering the self over time.

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NOTES

1. Both re-identification variables are correlated ($r = .56$), meaning that it is common for participants to see themselves as *both* a victim and a survivor or *neither* a victim nor a survivor. This raises concerns of multicollinearity. However, the variance inflation factors for the model are less than 2; only factors greater than 10 warrant concern.
2. Sobel-Goodman tests are best estimated in larger samples (Fritz and MacKinnon 2007). Additional

tests using structural equation modeling also support these results. The proportion of the total effect of identity deflection on posttraumatic stress that is mediated is almost 34 percent.

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