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Sitting Here in Limbo: Ego Shock and Posttraumatic Growth

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In their target article, Tedeschi and Calhoun (this issue) bring together literature from a variety of fields to highlight the personal growth that can occur after a range of traumatic experiences. The authors do an excellent job of documenting examples of posttraumatic growth and describing some of the cognitive and interpersonal processes that drive this growth. In all, we see two major strengths in this target article. First, it offers an optimistic, or at least less pessimistic, picture of the individual response to trauma. (As an aside, we would quibble with the use of the word *trauma*, even with the authors' admittedly broad definition, preferring instead a term that is not quite so loaded.) This counters a long tradition in psychology of highlighting the importance of psychologically defending the self against threat—a point we return to later. Second, the authors offer a compelling portrait of the narrative self-reconstruction processes that leads to posttraumatic growth.

In this commentary, we suggest additions and clarifications to three elements in the model of Tedeschi and Calhoun (this issue). First, we suggest an alternative conceptualization of the immediate effect of trauma on the self-system. Specifically, we discuss past research related to the construct of ego shock. Second, we highlight multiple paths along which the self can change following trauma. Finally, we speculate on an experience of selfhood after trauma but before the individual embarks on a path toward growth.

The Immediate Impact of Trauma on the Self

Tedeschi and Calhoun (this issue) use an archaeological model of the self in the Freudian tradition to describe the immediate effect of trauma. The

self-system is viewed as an architectural structure and trauma is described as a "seismic" event that brings down the structure. This metaphor is certainly useful, especially when the focus is on rebuilding the self after the seismic event. However, there is little specific data about the nature of the "razing" of the self. Does an individual experience the self-system crumbling? Does there need to be rebuilding to return to status quo? If for example, an individual faces a diagnosis of a fatal illness, but finds out the next day that the result was a false positive, is the self still dramatically changed? (A similar situation is humorously acted out in Woody Allen's, 1986, *Hannah and Her Sisters* and suggests that the response to such an episode can actually be quite complex.)

We suggest an alternative way of thinking about this seismic process. It is possible that the experience of traumatic events on the self may put the self-system into a state of shock, which we refer to as *ego shock*. The self is experienced as "frozen" and deliberate action is seen as impossible. This experience of ego shock is generally of a very short duration, and does not destroy the self-system. Indeed, it may even serve as a primitive cognitive mechanism for protecting the self-system from threat.

Our research on ego shock has included collecting narrative accounts from individuals who have received major threats to their self-esteem (Campbell, Baumeister, Tice, & Dhavale, 2003). Self-esteem threats are not generally considered traumatic, but we believe that the episodes described by the participants were of sufficient power to be considered traumatic in the broad sense of the term used by the Tedeschi and Calhoun (this issue). By collecting accounts of both major and minor ego threats, as well as major boosts to self-esteem, we were able to assess the experiences that are unique to major self-esteem threat. We found that ego shock primarily occurred immediately after major self-esteem threats. Participants reported that they "froze up" or were unable to act, that they felt removed or distant from themselves, that the world seemed distant or strange, and that they felt emotionally numb. These experiences of ego shock were temporary, being quickly followed by an awareness of the situation with the corresponding attributions and actions.

The description of ego shock reported by these narrative writers is similar to many accounts of mild to moderate dissociative experiences reported in the trauma literature. It is also metaphorically parallel to the experience of brief physical numbness following physical trauma (e.g., cutting one's finger while chopping vegetables). Indeed, each of these experiences may have similar adaptive, self-protective functions. Likewise, recent research on social rejection has found evidence of something akin to ego shock (Baumeister, Twenge, & Nuss, 2002; Twenge, Catanese, &

Baumeister, 2003). These experiments rely on laboratory-induced social rejection or aloneness. After these experiences, individuals display a range of behaviors that are consistent with ego shock. They feel emotionally numb, they are less able to perform complex cognitive operations, and they shun self-awareness. Importantly, the participants in this research experienced only a temporary change to the self. There was no long-term effect on the self-system.

How does the research on ego shock relate to posttraumatic growth? If the experience of a major self-esteem threat is an example of trauma (loosely defined), it suggests that the metaphor of shock may be a useful one for describing the immediate impact of trauma on the self. It is not that the city of the self is razed, but rather that it temporarily freezes in time. The walls of the city may indeed come tumbling down, but we believe that this process (a) occurs after the initial experience of shock, and (b) reflects efforts to incorporate new and difficult information into the self-system. If there is no need to incorporate new and difficult information, as may be the case with a false-positive medical test, then the self may reemerge unscathed from the shock. On the other hand, even when a traumatic event is survived, such as wartime trauma, the self can be dramatically altered. The result of such trauma, often called shell shock or posttraumatic stress disorder, may eventually be followed by posttraumatic growth. (Somerset Maugham's, 1994, *The Razor's Edge* is a classic account of such posttraumatic growth.)

Of course, both Tedeschi and Calhoun's (this issue) research on posttraumatic growth and our own research on ego shock rely on metaphors for explaining the self's response to trauma. Future research needs to focus more squarely on underlying mechanisms. Also, we would like to point out an important similarity between work on posttraumatic growth and our own research. The focus of the ego shock research was on the immediate effect of major self-esteem threats on the self-system. Within these narratives, however, there was an important unexpected finding. (Had we been familiar with work on posttraumatic growth, however, the result would have been expected.) In short, the majority of participants reported that the major self-esteem threat had a lasting impact on them. This by itself is not too surprising; these were by definition extreme events. What was surprising was that, when the individual was changed by an event, that change was in a positive direction almost 40% of the time. For example, an individual who failed at a major academic assignment redoubled her efforts and lessened her procrastination, which, in turn, resulted in better than expected academic success. In another case, an individual who was rejected by a romantic partner realized that he was looking for the wrong traits in dating partners and then found someone with whom he could have a deep and affectionate relationship.

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In short, our research in a different domain (i.e., major self-esteem threat) yielded independent evidence of posttraumatic growth. What is also clear from reading Tedeschi and Calhoun's (this issue) target article is that these positive changes are not limited to self-esteem threats. Rather, they reflect a larger pattern of posttraumatic growth. Future research on self-esteem threats would benefit greatly from the proposed model of posttraumatic growth.

Multiple Directions for Change

What is refreshing about Tedeschi and Calhoun's (this issue) model of posttraumatic growth is that it suggests a direction through which positive outcomes for the self can be obtained after a very negative experience. The model may benefit, however, by incorporating multiple directions or paths for the self following traumatic events. Furthermore, it would be useful to specify when the self will remain the same, diminish, or grow following trauma.

Most of the research to date in social psychology, for example, focuses on the techniques through which the self can maintain status quo (or at least slightly modify the self-system to take advantage of the opportunity to self-enhance or avoid the pain of negative events). When faced with negative information about the self, for example, an individual can blame the situation (i.e., self-serving bias; Campbell & Sedikides, 1999), strategically downplay the centrality of the threatened aspect of the self (Tesser, 1988), or affirm a different element of the self (Steele, 1988). Does growth only occur when the self-protective mechanisms fail, or can growth occur in the context of self-protection and self-enhancement?

Likewise, as Tedeschi and Calhoun (this issue) note, there is a large literature in clinical psychology on self-diminishment after trauma. Posttraumatic stress disorder is a very painful example of this and returning to status quo is typically the hoped-for outcome of therapy. How does the diminishing of the self relate to posttraumatic growth? One possibility is that diminishment and growth both reflect alternate paths to take following trauma. However, more complex models are possible. For example, diminishment may be necessary before significant growth can occur. This, for example, is part of the standard hero myth (Campbell, 1949) that includes an element of descent of the ego (e.g., Jonah in the belly of the whale).

Finally, the model as it stands appears somewhat uncertain as to whether trauma is necessary for growth. Trauma does have the potential for challenging cognitive structures, and thus allowing and necessitating new structures to be built. However, the posttraumatic growth model is also consistent with the proposition that any of a host of motivations could also spur growth. Trauma works, but so may a simple desire for self-knowledge. Likewise, any seemingly positive life challenge (e.g., spending a year abroad in Australia) could spur growth. This model, then, differs from some of the traditional models of growth that suggest some negative experience is needed for true growth in the self. For example, Jung's model of growth, largely derived from alchemical models, suggested that negative experiences were necessary for the eventual transformation into something more positive. Is there something special about trauma that changes the self beyond what is possible by curiosity, growth motivation, contextual changes, and so on?

In all, the posttraumatic growth model might benefit from describing not just posttraumatic growth, but rather the range of interactive processes that may occur after trauma. Likewise, the model may also want to delineate the unique effects of trauma on growth.

Sitting in Limbo

A final question that we have involves the state of the self, after the experience of trauma but before narrative reconstruction has taken place, when many of the fundamental tenets of the self (e.g., schemas, scripts) have been found lacking but nothing has been added. That is, what is the self when significant parts of the self-schema are absent?

The social psychological view of this phenomenon would likely invoke the concept of *scriptlessness;* that is, the individual has no script (i.e., event schema) for action. The scriptless condition is often unpleasant, especially if a specific course of action is desired. For example, an individual who has to reject a person who loves him or her may not know how to act. This experience can lead to stress and anxiety (Baumeister, Wotman, & Stillwell, 1993).

When there is no desired course of action, an individual in a scriptless state will act largely on the dictates of the immediate social context. This is evident in much of the work on deindividuation. Individuals in a deindividuated state are likely to act negatively when the crowd they are in does so, as in the case of much mob behavior, but also may act in a prosocial way if the social context dictates it (e.g., Johnson & Downing, 1979). The deindividuated individual may also act on short-term desires. For example, individuals placed in a dark room without any direction may seek physical contact and affection (Gergen, Gergen, & Barton, 1973). Similar findings in the self-concept literature suggest the power of context to shape the self when schemas are not available. Individuals who are aschematic on a trait, for example, are more likely to accept external feedback on that trait than individuals who are schematic (Markus, 1977).

In short, the classic social psychological approach to the self without schemas (e.g., scriptless, deindividuated, aschematic) is that the self will become more vulnerable to the dictates of the context and short-term impulses.

The anthropological literature on social rituals takes a similar view of the self without a script. Using the concept of the *limen,* or the threshold between the conscious and subconscious (or subliminal), anthropologists describe the appropriate state of consciousness for changes in the self to occur. When individuals enter a liminal state during any ritual context, change in the self is possible. Importantly, the nature of the ritual dictates the direction of that change. (Like the social psychological literature, the self becomes open to cues from the social environment.) For example, liminal states can be brought about via the ritual, chanting, incense, and other aspects of a Catholic Mass. The change in the self involves increasing contact with the divine and with the religious community.

Both the social psychological and anthropological views are consistent with the posited model of posttraumatic growth. The self is made scriptless or aschematic, and then rebuilt through narrative reconstruction. There is, however, another view of the self, best described in the Zen literature. This view is also evident in milder forms in other domains. The Zen view argues that the experience of a self that is minimally scripted or schema-driven may be ideal in itself. Put another way, the experience of the world with minimal interference from the self is desirable. This is not to suggest that persons should be chronically driven by contextual cues. Rather, this view suggests that it is possible, after a long training in stabilizing and quieting thought processes, and with proper attention to compassionate interpersonal action, to experience the world with minimal interference of scripts or schemas.

There are many examples in the Zen literature of efforts to diminish the power of the schema-driven self. For example, take the koan: "What is your original face before your parents were born?" Or the more poetic question by Yung-Ming (10th century): "Here in Hsueh-t'ou mountain a rapid waterfall dashes down thousands of feet. Here nothing stays, not even the tiniest chestnut. An awesome cliff rises up thousands of feet with no space for you to stand. My friends, may I ask: Where do you proceed?" These questions are not designed simply to scare or confuse people (although that is often the immediate effect), but rather to help them experience the world more directly and without the veil of the self.

The experience of trauma also certainly has the potential to bring about such a change. Near-death experiences are a potent example of this (e.g., Wren-Lewis, 1994) but other events may have the same impact. The self may be jarred out of its cocoon and given the opportunity to see the world more as it is—no reconstruction necessary or desirable. Indeed, the examples presented at the beginning of Tedeschi and Calhoun's (this issue) target article are consistent with this. A self that experiences the richness and fullness of life with a sense of awe and appreciation may reflect the deconstruction rather than reconstruction of the self. This, we believe, may be an interesting direction for future research.

Conclusion

Tedeschi and Calhoun (this issue) have done an excellent job in documenting the process of posttraumatic growth. It is clear that humans cannot only be resilient in the face of trauma, but may also benefit in some ways from these experiences. This important research effort taps into a host of complex issues surrounding the self and the experience of life. We hope research continues in this area.

Note

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Trauma Growth and Other Outcomes Attendant to Loss

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A Spectrum of Outcomes

As we began this commentary, the senior author heard of the death of a dear friend and mentor who made gigantic contributions to the field of psychology and to the study of subtopics such as close relationships, group processes, and social influence. During his last year of life, this man knew he was in a very difficult struggle to live, battling colon cancer. His friends and close others watched as he suffered and battled valiantly. His loss is relevant to the present topic, which concerns people's experience of growth in the wake of major loss events. This man's struggle probably could not be construed as involving growth. It was the end battle in a long life, containing many illustrious successes and some major losses as well. Loved ones' reactions to his death may not be readily construed as involving growth either. We will celebrate his life and role in our lives. Most of us, however, cherished the great moments of our times together and accepted his death; acceptance was made easier because of the pain and withering effects of colon cancer.

We believe that this opening example is reflective of the wide spectrum of outcomes associated with loss and traumatic events. Viewing outcomes as along a positive–negative continuum may be less tenable for some loss events than it is for other loss events. For some of these events, it may be enough to simply say "It's done," without placing a valence on the outcome for survivors.

Posttraumatic growth, as so well-articulated and studied by Tedeschi and Calhoun (this issue), is an invaluable concept for work on trauma and loss. These scholar-practitioners have created and pioneered this concept. Their work is imbued with the wisdom derived from a careful examination of loss in the experience of their respondents and clients. The concept of posttraumatic growth indeed is a major advance and fits well within the purview of what is called positive psychology (Snyder & Lopez, 2001). Our commentary focuses on outcomes of loss and trauma that do not add to the loss spiral of events (Hobfoll, 1988), but that are not necessarily positive in nature either. These other types of outcomes are not woeful, nor do they constitute growth in any clear sense of the term.

Movement or "Just Keep on Going"

The late actor Rod Steiger's motto on his California license plate was "Just Keep on Going." Steiger used this saying to symbolize his own life: He went from having little family support and being on the streets as a teenager to survival using his experience in the U.S. Navy as a foundation to great success later in life as an actor.

"Just keep on going" is another type of outcome that is common and relatively positive. It probably is not as much growth as it is movement—not giving up, not wallowing in despair, and not becoming abjectly depressed. It is, plainly put, surviving. In fact, it may be conceived best as a neutral outcome, which is the most that many people can muster under their load of loss and bereavement.

Movement, then, can be seen as being akin to resilience, which Tedeschi and Calhoun (this issue) describe as the "ability to go on with life after hardship and adversity." They point out that posttraumatic growth is different from this concept in that, unlike resiliency, it involves a qualitative change in functioning. However, we believe that movement after a loss or traumatic event would also require a qualitative change in functioning. To attempt to live life exactly as it had been before such a pivotal event would not only be an attempt at something impossible, it would most likely be counterproductive as well. To "just keep on going," it is necessary to recognize what has happened, realize that there is no return to life as it was once