

Facilitating Post Traumatic Growth in Survivors of Disasters

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Abstract

Natural and man-made disasters can be typified by loss and destruction. There is a need for mechanisms to promote positive outcomes to such events. Means aiming towards goals of Posttraumatic Growth can lead to successful recovery of an individual and a larger community in the aftermath of a disaster. In turn, resilience from experiencing the event and successive losses can prepare one for future difficulties. Psychological challenges in grief that arise after a traumatic event can mediate posttraumatic growth and recovery. Social Cognitive Theory posits that perceived self-efficacy in coping leads to positive results in posttraumatic recovery. Mortality Salience, a factor of Terror Management theory, also proposes that reduction in distress related to one's own death anxiety may increase self-efficacy, resulting in growth. Through Terror Management and Social Cognitive means, the current research aims to promote Narrative Reconstruction as an important coping mechanism in relation to Posttraumatic Growth, for individuals as well as community-level bereavement in disasters.

Keywords: Psychology, Disaster, Grief, Narrative Reconstruction, Post Traumatic Growth.

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In light of the upheavals through the growing frequency of natural and man-made disasters, there is an increasing need to understand how communities will fare in coming years after experiencing such devastation. As a positive outcome, resilience has the ability to prepare people and communities for future endeavors such as rebuilding and maintaining basic needs and structures. The social structure provided by community and belief systems within culture can be associated with positive mechanisms that result in resilience. “Posttraumatic growth is the experience of positive change that occurs as a result of the struggle with highly challenging life crises. It is manifested in a variety of ways, including an increased appreciation for life in general, more meaningful interpersonal relationships, an increased sense of personal strength, changed priorities, and a richer existential and spiritual life” (Tedeschi & Calhoun, 2004, p. 1).

Benight and Bandura’s Social Cognitive Theory (SCT), which states that individuals learn from one another coincides with needs for community supports. The mechanisms of SCT as applied to natural and manmade disasters are crucial to resolutions to problems brought about by disasters. The concept of Terror Management Theory (TMT) posits that mortality salience, an anxiety induced by thoughts of one’s own death, and self-efficacy motivate an individual to overcome the trauma of witnessing death and disaster. Ritual and mourning practice do not limit, but provide an important structure for a population to experience Posttraumatic Growth, as well as coping with the sudden severance of relationship from death in unexpected and ambiguous losses of persons or customs. Through Terror Management and Social Cognitive means, it is possible that a large portion of the population survive grief and loss not only as bearers of experience, but are also motivated by the means of Posttraumatic Growth to move forward, as individuals and community.

Narrative Reconstruction (NR) and cognitive reframing uses the mechanisms of SCT and TMT to approach an individual's storied trauma from such disasters and would serve many populations as a mechanism to adjust one's worldview in order to deal with the current and future environments post-disaster. As most disasters incur a collective experience and trauma, NR has the capability of encapsulating ritual and group identity as an important detail of the recovery process by creating a social structure which may have been disrupted by the loss of loved ones in the event. The current study aims to advocate for Narrative Reconstruction as an applicable method of meaning making and mechanism for posttraumatic growth for the bereaved in the post-disaster context.

Review of Literature

Post Traumatic Growth.

In 1995, Tedeschi and Calhoun presented Posttraumatic Growth (PTG) as a potential positive outcome of traumatic events. Traumatic events have the power to change the physical and psychological environment dramatically. This PTG framework gives a label to that the idea that difficult life struggles and events can lead an individual to positive changes, or growth psychologically. In these works, Tedeschi and Calhoun contend that a changed perception of self allows a crucial perspective from which one can achieve changes in priorities, and appreciation (2014). Any mechanism that can alleviate distress and promote wellbeing is preferable for recovery, and PTG is considered a desirable outcome.

Within the Posttraumatic Growth model, there are five realms of possible outcomes: New Possibilities, Relating to Others, Personal Strength, Spiritual Change, and Appreciation of Life (Tedeschi & Calhoun, 1996). The emergence of *New Possibilities* represents a shift in goals, a reprioritization as well as new opportunities. In disasters, the constant shift in environments

reveals a need for flexibility in personal goals, providing new opportunities. The second domain is *Relating to Others*, in which an individual develops deeper relationships and (more) compassion for others. These social connections are important for disaster and traumatic recovery. *Personal Strength* is a dimension in which level and coping ability can be measured. High Self-Efficacy and agentic motivations allow for growth to occur organically in cases where the individual feels strengthened and open to meeting new life challenges (Tedeschi & Calhoun, 1996; Bandura, 1986). The next domain in PTG is *Spiritual Change*. This is often an occurrence that fosters positive emotion when faced with unexplainable and unbelievable events. A deepening in spiritual relationships and value is common, and includes existential questioning after losses and shifts worldview to cope with reasoning for such events, which also provides social and moral supports. The last thematic dimension of PTG is *Appreciation for Life*, which reorders priorities and gives joy, and/or robust value to one's life and activities (Tedeschi & Calhoun, 1996). Using these items in the Posttraumatic Growth Inventory scale (PTGI), it is possible that these dimensions are measurable and valuable to those in the field to evaluate trauma and disaster survivors as having achieved or working toward a level of growth. These quantifiable shifts represent a focus on the individual and a variety of personal attributes that contribute to the outcome after a traumatic event.

Often there is a shift in *intrinsic* goals after a traumatic experience, which include building significant innate resources (e.g. social networks, self-efficacy) and satisfying levels of autonomy, growing toward more meaningful and secure realities. Although intrinsic goals may be difficult after traumatic events such as losing loved ones, *extrinsic* goals (e.g., carrying on for the sake of something other than oneself, materialistic endeavors) are much less likely to help an individual regain control of their immediate environment or develop positive coping strategies.

Another area which is thematic in the literature of PTG is socio-cognitive processes. Notable undertakings include social support seeking, disclosure, and cognitive engagement (Calhoun & Tedeschi, 2006). These themes overlap with the necessity of intrinsic behavior. Seeking social support is a process by which an individual seeks to build resources through others, and can help individual's presenting a lack of autonomy, and foster new relationships post-disaster. This is an act that represents the importance of relationships in one's life. Sometimes, after a major disaster is it possible that loved ones are elsewhere, displaced by a storm, or have died in the process, leaving gaps in an individual's coping strategies. This loss of social support may be enhanced by a deepening of spiritual belief and engagement within a religious organization, or by forming new relationships with others through altruistic means. In addition to spiritual affirmation, this can also lead to growth in areas of PTG such as new opportunities, relationships, and personal strength. Helping others creates bonding connections, allowing someone a support they might not have otherwise had access to. The second socio-cognitive behavior is disclosure. Though culturally distinct in western contexts, disclosure is often the intent of talk therapies, seeking clinical intervention, and simply a coping approach aimed at reducing stress. Disclosure relates to PTG in that it reinforces relationships and compassion, reorders, creates a fuller appreciation in putting words to an experience, and has the ability to deepen spirituality through disclosure to clergy. The last socio-cognitive process of interest is rumination, or cognitive engagement, which is an arduous process to deliberately confront the suffering from an event in order to ultimately elicit personal strength. (Calhoun & Tedeschi, 2006).

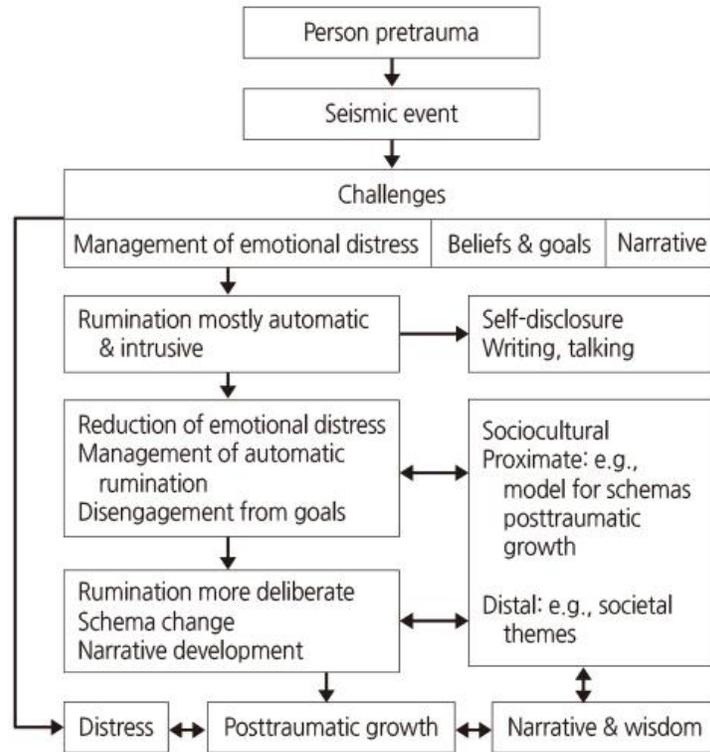


Figure 1: Model for Post Traumatic Growth (Tedeschi & Calhoun, 1999)

Tedeschi and Calhoun propose that posttraumatic growth mutually interacts with life wisdom. In the development of the life narrative, growth is an ongoing process, not a static outcome (2004). Depending on the intensity, severity, and duration of physical threat or suffering (either direct or vicarious), the anxiety responses can persist for a long time after the actual threat is removed. It is clear that in the case of a disaster, the parallels between one’s experience and the scope of the event can create unpleasant physical reactions. Adaptation to these high levels of physiological and psychological distress in disasters is often accompanied by PTG. The extent to which growth occurs is critical to how an individual adapts to their new reality (Tedeschi & Calhoun, 2004).

PTG is not the only outcome cited throughout disaster related literature. Resilience, or the ability to avoid negative psychological reactions to a traumatic event, has become a major topic

of disaster studies and psychology. It can be characterized as a trait or a learned ability. As the posttraumatic stress disorder (PTSD) literature grows— and is better recognized and treated when necessary, it is imperative to mention it, as when treatment, it is complimentary to posttraumatic growth literature. It is possible that an individual experience both after a disaster. In relation to the grief domain in the current study, it is relevant to mention a disorder listed as under consideration for future editions in the most recent Diagnostic and Statistical Manual (DSM-5) named Persistent Complex Bereavement Disorder. Although the DSM-5 does include this grief label, it approaches solutions as it does with other long-term distress related illnesses such as PTSD. Commonly, bereavement is considered to be an acute condition with periods of adjustment, accompanied by depression, and therefore resolves naturally over time. This conditional label relies heavily on a variety of circumstances/symptoms which may be alleviated over time, and cannot be treated in a systematic way with all, but common approaches treat symptoms (such as anxiety and depression) to alleviate them, as well as gain skills to help integrate belief and rumination, much like PTG efforts. In disasters, it is possible that those may have been exposed to death and destruction may be diagnosed with PTSD or Acute Stress Disorder to provide intermediate treatment. The current study is intended to approach this issue and propel the positive psychology of Posttraumatic Growth to offer a skill set that moves beyond the limited supports of psychiatric solution focused treatment.

Collective Trauma and Loss

In most natural and man-made disasters, masses of people are affected in the wake of destruction. At its base, *Collective Trauma* is the negative consequences of mass disaster(s) on a large scale, which impacts a collective of people. This collective may be as small as a family, and as large as a continent. Community and cultural identity is synonymous with collective

worldview. In cases of disaster, without the proper shift or adaptations, this identity or inclusion of member(s) to the group is also threatened. Collective trauma strains social processes, networks, relationships, institutions, functions, dynamics, practices, capital, and resources (Somasundaram, 2014). When the individual is embedded within community and family, traumatic events are experienced through the community as well as the individual level. It is possible for this social tear to be commuted to future generations beyond the event, ecologically, and heritably. As stated by Kirmayer, Kienzler, Afana, and Pederson (2010), “The psychological impact of a disaster depends on both the personal and collective significance of and response to the catastrophic event” (p. 156). Several dimensions are at play within this type of trauma and beyond the social context, and there are also ecological and causal conditions which add additional stress to those who have experienced a large scale disaster. It is expected that communities will regain agency when performing customs, rituals, and observing similar ceremonies, participating as a part of the community after a traumatic event (Somasundaram, 2014). The breakdown of traditional structure and/or institution, daily activities, and deteriorations of norms are hurdles that impact an individual and a community’s ability to function. In the aftermath of a shift in the ecological and structural environment, communities become more dependent, passive, and distrustful over time (Somasundaram, 2014). In losing primary family members within the home and leaders within the larger collective, it is possible that practice and function are left with a lack of trust, changes in relationship significance, and suspicion among members. Communities under stress are further undermined by social disorganization, unpredictability and fear. It is also likely that in experiencing an event as a group of people, group-identity as well as individual may become inclusive to the experience

itself. Trust and social support are the most valuable resources that impinge on the individuals' ability to grow after collective trauma.

Loss of resources directly influences general distress, social support, optimism, and coping self-efficacy (Benight, Swift, Sanger, Smith, & Zeppelin, 1999). In the case of Hurricane Andrew, it was found that proactive coping reduced the likelihood of longer-term distress. Social support, seeking social support coping, spirituality, and optimism are moderately related to posttraumatic growth (Prati & Pietrantonio, 2009). The coping post-Andrew was influenced by three factors: the magnitude of material or resource losses; SE, as a direct and mediating determinant of posttraumatic stress; and coping strategies, such as active problem solving to change immediate environment/reality.

In 2004, the Indian Ocean earthquake caused a tsunami which measurably affected the country of Sri Lanka. In 2013, Ekanayake, Prince, Sumathipala, Siribaddana, and Morgan noted that survivors relied exclusively on their own coping resources such as family, social networks, and a wider community to maintain, manage, and recoup losses. Both intrinsic and extrinsic needs were met within the community itself. In dealing with stressors related to the event, survivors noted the importance of extended support networks, religious and faith based practice, as well as cultural traditions in facilitating recovery and emotional well-being. Residents reported to valuing governmental reestablishment of social, cultural and economic structures that were in place prior to the events. In this case, the study reported that "Western" interventions were limited and not useful. Although there were a number of aid organizations available, they were not utilized, as people had a preference for group and individual intervention aligned with religious and cultural practice. Private grief was attended to by collecting items and paying respects for the dead in private quarters, as individuals. Public mourning was catalyzed by the

erection of monuments (much like spontaneous memorials), religious activities and collective consoling. Through narrative reconstruction and meaning making of the events in the following months, members of the community adopted coping strategies and accounted for lost or diminished cultural practices.

According to Prati and Pietrantonio, religious coping and positive reappraisal coping produce the largest effects in mediating posttraumatic outcomes (2009). A loss of this faith garnered greater long term-distress, indicating a dissonance between worldview and the circumstances of the disaster (Ekanayake et al., 2013). In another study examining the impact of the same series of events, an ethnographic account of the Sri Lankan residents, who used specific storytelling and naming to describe the behavior of their community members. Rather than analytically making sense of anger and frustrations in seeking resources and calm, they described their cohort as being possessed by a “gaze of the wild,” or their distress as having “a terrified heart” (Watters, p. 130). This extends the reliance on cultural worldview and telling the story in context of their culture and location as being relevant to not only to normalize reactions, but to shift blame toward the situation rather than the person without having to adapt the worldview.

In the aftermath of Hurricane Katrina, citizens of New Orleans were unable to live or view their lives as a continuum. To many, life was only experienced as before and after the storm. The comfortable narrative of *before* (despite many cases of poverty and other stressors), and the hopeless *after*, led members of the community to seek ways to regain control of their trauma and mark it with positive experience (Otte, 2007): “All of those who were quite literally washed out of the city sought ways to regain control over their existence by creating individual rites of passage capable of instilling meaning into what hitherto had been a senseless experience of destruction.” (p. 6). Otte witnessed that individual coping mechanisms and ritual were a full-

body experience of language and expression of their struggle. This was a reformation to the post Katrina devastation, and the personal growth survivors had sought. In tattooing as a rite of passage, naming and designing the tattoo marked the experience, while bearing it lead to a symbolic permanence within the community, and expressed the personal meaning of the storm. This not only protects group status, but subverts the punishment (of the disaster and self-mortification) into a positive act of self-assertion and efficacy (Otte, 2007). This language is reliant on culture, and extends to paying homage to standing religious articles and erecting public memorials with the remnants of personal effects to the neighborhoods that were destroyed. In another illustration described in Otte's ethnography a family clings to a statue of the Virgin Mary, which remained intact in their ravaged home (2007). Mary represents not only a symbolic representation of the faith that had saved them, but now was an idol that stands as a memorial to their previous and future lives, a sign of hope. In facing the prospects of death and salvation many search for signs and symbols to align themselves with the living in order to process their grief and bereavement.

Strong connections within a community can be observed in public memorials, such as in the case of the Oklahoma City bombings. Public displays of mourning and shrines are observable collective mourning, during private, ongoing ritual. In a study of survivors of the Oklahoma City bombing it was stated, "rituals were important in fostering unity and healing. They channeled grief and terror into meaningful and life-affirming activities and instilled faith in the long healing process" (Walsh, 2007, p. 222). These are symbolic resources given by and to a faction, asserting a public awareness of death, and agency to help a community to grow. Societal discouragement of ritual and mourning in the public sphere can create a rift between the individual and the reality of death (Jorgensen-Earp & Lanzilotti, 1998). Religious and secular ritual is essential for

individuals to process an experience as an important event with valuable meaning as a part of their life span.

Theoretical Approaches and Mechanisms.

Social Cognitive Theory (SCT) suggests that portions of an individual's knowledge acquisition can be directly related to observing others within the context of reciprocal causation, behavior, cognition, and personal factors such as social interaction, experience, and outside influences (Bandura, 1986). This model is comprised of the three main factors of reciprocal determinism (the idea that behavior is ultimately determined by the individual). These factors are (1) Behavior, (2) Personal or cognitive; and (3) the external Environment (See Figure 2).

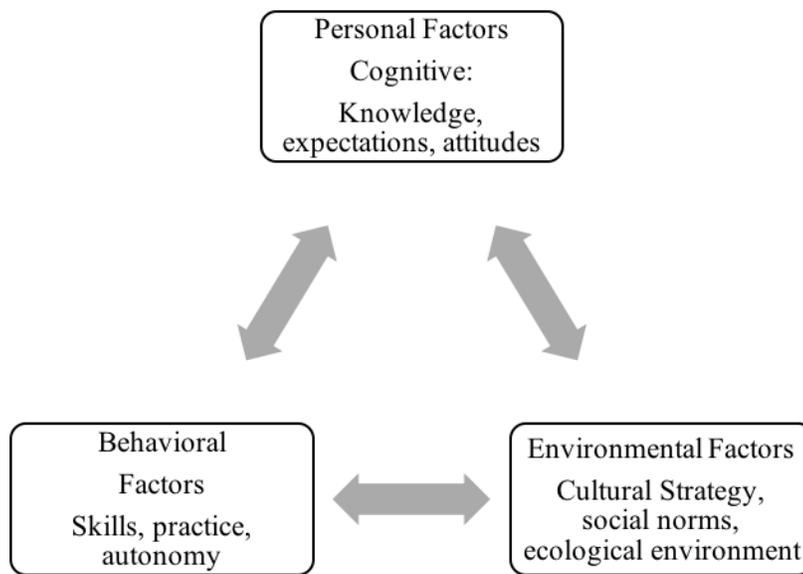


Figure 2. Bandura's Reciprocal Determinism, influence of Personal, Behavioral, and Environmental factors that are foundational to Social Cognitive Theory, which propels an individual's behavioral decisions. Each of the factors are bidirectional.

In light of these factor's influence and the agentic approach to human behavior, trauma and stress related behavior post-disaster can be investigated through SCT and first hand

experiences of those who have endured them. These factors individually and bidirectionally can impact the domains of PTG and extent of growth such that constructive influences may result in more positive outcome.

According to Benight and Bandura, acute distress is a normative response to trauma. They posit that posttraumatic recovery is mediated by perceived coping efficacy. Coping self-efficacy can be defined as an individual's belief that they have the ability to impact their well-being, or ability to cope (2003). SCT prescribes that self-efficacy (SE) is the foundation of human agency, which impacts socio-emotional functioning in several ways. A high sense of SE can serve as a protective factor against PTSD and is a cognitive process which promotes PTG. SE is an enabling and protective function of one's agency. Since disasters are not isolated to the individual, it is a collective, continual adaptation to stressors after an event. During the Mount Saint Helen's volcanic eruption, the severity of loss, social support, and perceived SE were predictive factors of traumatic experience. Researchers found that SE accounted for the variance in stress levels of the subjects (Benight & Bandura, 2003). Likewise, in Oklahoma City, SE accounted for a significant portion of the variance in posttraumatic reactions and intrusive thoughts (addressed as rumination in PTG). In an analysis of collective trauma, psychological and somatic outcomes by Luszczynska, Benight, and Cieslak, SE was found to have a positive association with positive emotions. SE was also associated with lower levels of distress (regardless of time elapsed since event), depressive feelings, suicidal thoughts, anxiety, and negative affect (2009). This shows that self-efficacy not only plays a role in mediating stress, but promotes positive outcomes such as PTG.

Self-efficacy does not only apply to sets of growth measures. It is also influential in grief severity and worldview management. A study of the 2007 campus shooting at Virginia Tech

revealed that persistent grief was predicted using the SCT model and anxiety buffer disruption (Smith, Abeyta, Hughes, & Jones, 2015). *Anxiety Buffer Disruption* is an extension of Terror Management Theory, which stipulates that trauma disrupts the anxiety buffer created by worldview, and in turn an individual cannot be protected from death-related thoughts. A measure of positive worldview is related to accepting losses, and belief in a just world. According to the authors, SE is a process of reconciling the dissonance between events and persistent worldviews (Smith et al., 2015). Posttraumatic stress (PTS) influenced grief severity. As indicated in the study, higher levels of PTS undermined SE, which indirectly influences persistent grief.

According to the aforementioned Terror Management Theory (TMT), humans possess an instinctive drive for self-preservation, but also have an understanding of the inevitability of death, including one's own, which induces existential anxiety. Worldview has the capability of managing this terror through consistent meaning, permanence and stability (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). As it relates to PTG, worldview is critical in understanding a disaster or traumatic event in terms of justice, and cultural norms. Through TMT that worldview has the ability to buffer existential anxiety. Within the TMT literature lies the Mortality Salience Hypothesis (MS). Reminding people of their own mortality increases the need for structure, which is provided through worldview and self-esteem. Induction of MS promotes worldview defense in the form of greater emphasis on personal and cultural values, shifting between extrinsic and intrinsic to adapt (Greenberg et al., 1994). In relation to PTG and disasters, reminders of mortality are in flux with changes in resources lifestyle and energy levels during and after such events, and may create intrusive thoughts if not attended to or acknowledged. Death is a qualitatively unique threat that has a different dimension (Burke, Martens, & Faucher,

2010). For this reason, it is advantageous to investigate how worldview defense, efficacy and anxieties affect the outcomes of disaster survivors for methods to promote PTG.

Investing in a social group helps people to manage anxiety that arises from death awareness. When reminded of one's own mortality, people increase identification within a group and defend its beliefs, values, and practices. Following a death reminder, people exhibit more ingroup favoritism and identification, increased prosocial behavior and punish group deviants more severely (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). MS enhances perception of perceived collective continuity which leads to enhanced group association. Within group identity, it is likely that members share similar ideas about how they are positioned in the world, and also how they function as a member of that group. Group identification enhances self-esteem and extrinsic values (self-esteem, appearance), as support for these values determine in-group identity and relevance (Sani, Herrera, & Bove, 2009).

When individuals are reminded of their mortality, their need for faith in their WV is increased. Cognitive efforts to push this reminder out of consciousness appears immediately after the presentation of life-threatening stimuli. Deeper insight and secondary exposure to this fear (of one's own death) in MS activities results in reduction of fear by the secondary exposure to the subject's own mortality (Greenberg et al., 1994). This suggests that such WV buffering effects is not limited to thinking about one's own death. This type of repeated exposure may be useful in mediation of PTG, as similar exposure techniques are documented as useful to the resolution of PTSD. In adjustment of WV to meet or surpass levels of death anxiety (MS), an ongoing focus may eliminate fear of death after exposure.

In 2008, a study of those who witnessed or experienced the destruction of the world trade center was conducted by Seery, Silver, Holman, Ence, and Chu, which supports the mechanisms

of proximal and distal defenses of TMT (See Fig. 2, Pyszczynski, Greenberg, & Solomon, 1999). Proximity to the event had a relationship with mental health over time, and those who asserted more distress were more likely to express more detailed information related to their distress, given the opportunity. Those who elected not to express distress exhibited lower posttraumatic symptoms over time compared with those who chose to express (Seery et al., 2008). This supports extrinsic value as being more detrimental to growth in the case of those who disclosed often, and the proximal values of those who have processed the death-related thoughts, through the potential enhancement effects of MS. Likewise, cognitive efforts are directed toward pushing the thoughts out of consciousness, as shown in Figure 4. This cognitive effort appears immediately after presentation of threatening stimuli. Once this task had been accomplished, increased terror management takes place, and through bolstering of the cultural worldview, restoration and/or growth occurs (Greenberg et al., 1994).

A meta-analysis conducted by Burke, Martens, and Faucher found that death affects us without conscious realization, and can affect attitudes, behavior and cognition (2010). The length of delay in dealing with these thoughts can produce larger effects on these variables, though MS effects can be minimized through self-esteem, and by strengthening secure attachment and esteem, SE can be encouraged. MS's effects on self-esteem are positively correlated with need for worldview defense (Burke, et al., 2010). Pyszczynski and colleagues also report that high self-esteem should reduce or eliminate the need for the worldview defenses (1999).

Goals before and during phases of Posttraumatic Growth are shifted throughout the process of recovery and community. During both the San Francisco Northridge earthquake in 1994 and in the aftermath of 9/11, goals shifted from extrinsic toward intrinsic efforts. Intrinsic goals include the initiation of prosocial and helping behaviors, intensification of the quest for

value of meaning and relational investment, while extrinsic goals are representative of esteem, appearances, and monetary values (Lykins, Segerstrom, Averill, Evans, and Kemeny, 2007). Intrinsic goals and behavior are direct supports of PTG as they facilitate personal strength, new possibilities, relation with others, and an altruistic appreciation of life. Following confrontations with mortality, PTG research demonstrates that intrinsic values and goal completion provide lasting, personal resources such as autonomy, relatedness, competence, growth, whereas MS approaches extrinsic shifts such as esteem, appearances and money as an effort to meet intrinsic needs (Burke et al., 2010; Lykins et al., 2010; Pyszczynski et al., 1999). Encountering death over a longer period of time or in a manner consistent with goal structure may lead individuals to transcend defensiveness and maintain intrinsic orientation. Intrinsic goals relate to PTG goal structure, as they positively related to well-being, adjustment, self-actualization and are negatively related to anxiety. Time is also an influential factor differentiating TMT/MS and PTG applications, as differences in duration of confrontations and types of processing that occur afterward are important factors in determining the type of goal shifts needed. Maintaining an intrinsic goal orientation or making an intrinsic shift in goal values (both PTG/MS) across time will likely maintain or lead to new, positive effects (Lykins et al., 2007).

The paradox of Lykins and associates' 2007 research is the long term process of goal shift within the MS manipulations. In relation to these goal processes, it is important to understand what mechanisms may lead to such goal shifts. In analyzing TMT as a dual process model, the principles of proximal and distal defenses are mechanisms by which mortality (of self or other) may move between conscious and unconscious thought and suppress death-related thoughts. Proximal defenses are a process by which an individual (or collective) suppresses death-related thought or pushes the problem of death into the future by the individual

denying personal vulnerability to death. This threat is focused upon and then Proximal Defenses (PD) are activated with death thoughts are brought into attention. Distal Defenses (DD) are those of the Terror Management (TMT) defenses. They are integral in maintaining self-esteem (in agreement with Lykins et al.) and belief in one’s worldview, functioning to control the potential for anxiety that results from knowing that death is inevitable.

PROXIMAL	DISTAL
<ul style="list-style-type: none"> • Deals with conscious thoughts of death at the level at which the threat is construed • Removes death-related thoughts from consciousness and/or pushes death into the distant future • Rational • Occurs immediately after mortality salience • Does not occur in response to subliminal death stimuli 	<ul style="list-style-type: none"> • Deals with implicit knowledge of the inevitability of death at a level distal from that at which the threat is construed • Embeds individual as a valuable member of an eternal death-transcending reality • Experiential • Occurs after distraction from Mortality Salience • Occurs immediately in response to subliminal death stimuli.

Figure 3. Proximal and Distal Modes of Defense in Dual Process extension of Terror Management Theory (Pyszczynski, Greenberg, & Solomon, 1999)

These defenses are experiential: increasingly activated as the accessibility (confrontation) of death thoughts increase, up to the point at which such thoughts enter consciousness and proximal defenses are initiated (Pyszczynski, Greenberg, & Solomon, 1999; See Figure 4). This process is “enabling them to view themselves as valuable members of an immortal cultural reality that persists beyond the point of their own physical death” (p. 837). TMT’s purpose is to orient a

person towards self-esteem to secure extrinsic goals and point one toward an intrinsic goal. MS is the anxiety or “push” away from death-thoughts and mechanism that shifts goal orientation towards PTG. From an evolutionary perspective, self-preservation is a biological mechanism by which an individual derives meaning in life and value of him/herself (Pyszczynski et al., 1999).

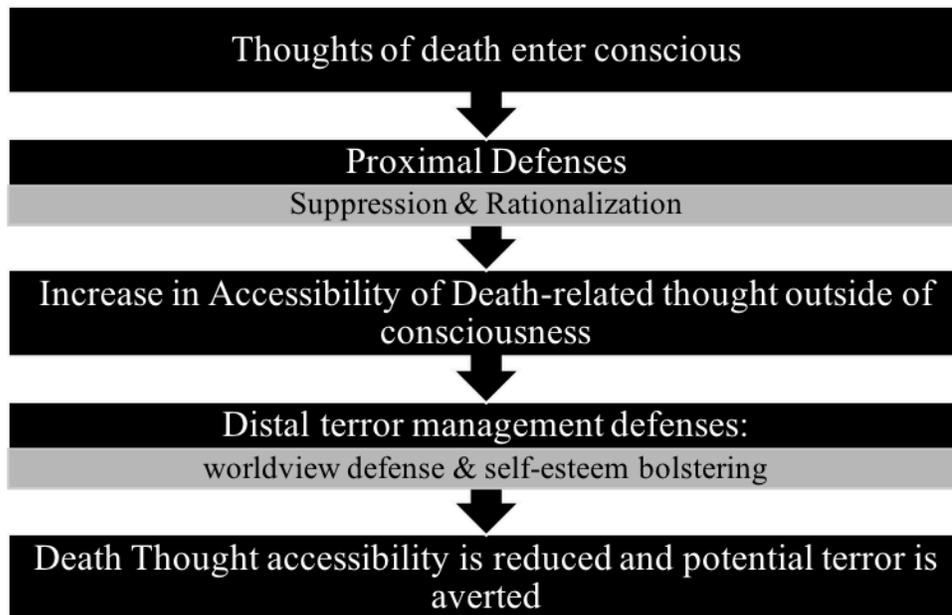


Figure 4. Activation of Proximal and Distal Modes of Defense (Pyszczynski, Greenberg, & Solomon, 1999)

Narrative Reconstruction

Narrative is often thought of as a story, or a process by which a protagonist overcomes hurdles in literature. In psychology, *Narrative* concerns the role of stories in human thought, through observation and experience. Sometimes this is used in Cognitive Behavioral Therapy as Cognitive Restructuring, which performs the same function toward maladaptive thoughts. This NR practice identifies through thought and memory, how individuals behave and identify as a result of the personal life narrative. In practice, narrative therapies use experience and story as a conduit to plan and overcome life obstacles. This often includes meaning making and

reevaluating and assigning importance through experiences. As a focused task of evaluation it is also valuable in possible stress reduction as the wisdom gained through narrative as a process and an outcome that reunifies one's understanding of the world and their place in it (Calhoun & Tedeschi, 2006). For these reasons it is often used in grief or bereavement therapies.

The grieving process itself is a process of sense-making, benefit-finding, and identity or role change. Often, meaningfulness of the world and meaningfulness of others is associated with worthiness of one's self. Within the first weeks and months after loss, it is likely that meaning making will take place for most (Gillies & Neimeyer, 2006). Often distress is a trigger of this process, and understandably, the traumatic event of loss in disaster would trigger a need for meaning making to facilitate recovery and growth. Disruption of meaning results in chronic grief (distinguished by prolonging and agonizing search for meaning), disrupting WV coherence. An inability to accommodate new meanings affect future grief severity. The most difficult losses people face are often ones that make the least sense. In the Dual Process model of coping, Narrative Reconstruction (NR) has the ability to enable Restoration Oriented (RO) coping, SE, allowing an individual to build a new identity without the deceased. RO coping is considered a process of adjustment, through activities by which one shapes a new identity without (but incorporating) the deceased loved one. NR can transfigure the lost loved one as a symbol and the event in which they died as a meaningful adaptation to a new environment without them (Gillies & Neimeyer, 2006). In finding benefits in a new role or environment post disaster or trauma, those experiencing loss can incorporate it as a necessity to move forward. This identity change can be adapted through NR by reconstructing the meaning (RO Coping). PTG is responsive to this coping, as individuals often take on new roles and responsibility (new possibilities), have greater awareness of fragility (appreciation for life), increased capacity for empathy (spiritual

change, relating to others), and changes in social relationships (relating to others); emotional proximity is influential on the strength of these affects. NR can also enable personal responsibility and growth by way of a change in attitude, perspective, ways of knowing, and sense of self as the domain of personal strength (Gillies & Neimeyer, 2006; Calhoun & Tedeschi, 2006). This intrinsic process of reframing a story or event can also allow for cultural values to remain intact through grief mediation and provide insight into personal difficulties (see SCT factors of influence), and reevaluate the importance of stressors that result from such losses. On the other hand, the other Dual Process bereavement requirement, Loss Oriented (LO) Coping involves activities that deal in the separation of the deceased, and the loss itself. This type of coping can be associated with the conscious exposure to MS, extrinsic goals (esteem), and discordant WV. Gillies and Neimeyer found that focusing on action through RO Coping, better predicted adjustment than LO Coping (2006).

In a study on fundamental assumptions about vulnerability and security, it was found that two month post-9/11, searching for meaning predicted high acute stress response, and those who had this response had greater posttraumatic stress two year after the event. (Updegraff, Silver, & Holman, 2008). Finding meaning also predicted lower posttraumatic stress, as well as a reduced fear of future terrorist event. In this study, early coping strategies and instrumental support (help from others) were the most significant predictors of meaning finding. This not only supports the RO coping hypothesis, but also the effects of early interventions (such as psychological first aid), and the importance of social influences on growth.

As most Western family- or community-oriented approaches seek solutions, recovery is the top priority in resolution of post-trauma reactions. In these methods, there are multiple losses and multiple approaches to restore an *individual*, more so than to promote growth. Disaster and

trauma responses should include high-risk signifiers for complicated recovery, as well as approaching the multiple losses which occurred. A large scale event has the possibility to change one's sense of psychological and physical wholeness, loss(es) of significant relationships, structure (even the head of family/community), intact family unit or home, way of life, future potential (children), hopes and dreams for the future, assumptions and worldview (Audergon, 2004). The social risks associated with loss can also change belief systems, and create a pathway of transcendence for an individual and the deceased through forgiveness, participation in public ritual (social supports, and meaning making), and create a new sense of reality.

In taking a positive outlook through NR, families can creating legacies to be preserved generationally. Through creating symbolic expressions such as ritual, milestone memorials, and anniversaries, that spirituality helps to create a hopeful or positive outlook, while generating meaningful and manageable experiences that contribute to the narrative of a disaster or loss (Audergon, 2004). Through flexibility and stability, adults ae able to adapt to unforeseen challenges while children adhere to schedules to promote constancy. In remaining connected, tolerance and respect (relating to others) will help families and communities remain as a unit. Audergon prescribes four ritualized efforts to help a community recover from significant loss: (1) normalize and contextualize distress, (2) draw out strengths and active coping strategies for empowerment, (3) offer follow up and mental health services for those in distress, (4) mobilize family and social support for ongoing recovery (2004, p. 217). Examples of these four steps as suggested by Walsh (2007):

1. Shared acknowledgment of reality of traumatic event, losses:

Clarification of facts, circumstances, and ambiguities.

2. Shared experience of loss and survivorship:

Active participation in memorial rituals, tributes, rites of passage; shared meaning making; emotional expression; spirituality.

3. Reorganization of family and community:

Planning for survivors' well-being; foster continuity and change; realignment of relationships; reallocation of roles and functions; rebuilding of lives, homes, livelihood, kinship, and community.

4. Reinvestment in relationships and life pursuits:

Constructing new hopes and dreams; revising life plans and aspirations; finding new purpose from the tragic loss and the spirit of loved one(s) lost.

Post disaster strategies must address the broader impact: promoting sense of safety, calming, self-and collective efficacy, and feelings of connectedness and hope. As stated by Kirmayer and associates, "Social impact of disasters reflect their magnitude, level of pre-existing infrastructure, level of infrastructure preserved, meaning of events, response of the community and local population, response of government and larger society, and the international response" (2010, p. 159). All events have moral meaning as a part of causal chains that include human or spiritual agency. These authors used several modes of therapy to facilitate PTG in the 2004 Sri Lankan Tsunami. Prolonged Exposure therapy was used to aid extinction of emotional responses of fear. Cognitive Behavioral techniques, as modes of interpretation, can be changed in response to traumatic cues, reducing catastrophizing thoughts and reinforcing adaptive coping. Combining the aforementioned, Narrative Exposure Therapy was used in tandem to reconstruct life narrative as a review of experiences. This allowed participants to revisit associated emotions and physical

feelings, and to allowing habituation (Prolonged Exposure) of the arousal gives trauma (memories and experiences) structure through retelling and engaging (combined mechanisms of Cognitive Behavioral therapies) (Kirmayer, 2010). Although the necessary social structures were adequate as mentioned earlier, this intervention is effective in allowing for survivors to use their own language and process the event without assigning and inorganically creating a change in WV.

It has been shown that the assistance of bereaved survivors following single and multiple deaths following disasters can be haphazard (Henrickson 2002). A collective approach would not only provide relief to those who are treating the survivors, but aid in creating a group-identity and a social support system for those who have experienced the same event, a resource lasting far longer than outside intervention. In a report by Dyregrov, Straume, and Sari, several families from several disasters in Norway and Sweden were invited to participate in a collective approach aimed at learning about and resolving grief (2009). Over a total of three weeks, at three times (2 months, 6 months, and 12 months post loss), the authors used thematic activities and skill building in relation to growth. In the first week, participants heard from officials from the disasters, and focused on the time from the deceased's funerals until the current meeting, and a trip to the disaster site. There was an emphasis on challenges, thoughts, reactions, coping and supports. Discussions included thoughts about the time ahead in relation to the emphasized topics. At the second meeting, six months after the event, themes included grief and interactions with their families, grief over time (complicated/prolonged), and handling everyday life (including coping with expected reactions). Activities included creating visual representations of the grief process and viewing pictures of their lost loved ones, and discussing how it felt to belong to a group, as well as how they can support one another. In the final, one year anniversary

gathering, there was a year review session and a road ahead theme, dealing with what had been taken care of and what is left. This week was to focus on positive aspects, restrict time thinking about the deceased, and implement useful techniques to dispel group member's intrusive thoughts, and improve daily functioning. They also learned and created rituals to process these thoughts and feelings, as well as asking forgiveness and giving self-permission to grieve less. Participants were guided through signs of persistent complex bereavement and given resources in case symptoms did not resolve with the learned techniques (Dyregrov et al., 2009). This focus on future orientation is advantageous as described previously in RO coping, as it approaches all of the domains of the PTGI. In the first meeting relating to others, spiritual change and personal strength were encouraged. In the second meeting, those three domains were discussed in addition to new possibilities. In the final meeting, all of the domains were included, specifically focusing on new possibilities and spiritual change. In addressing all of their cognitive and social needs, participants commented that they felt prepared to meet future challenges after the meetings (Dyregrov et al., 2009), signifying that the skills included in the sessions promoted and imparted the outcome goals of posttraumatic growth intervention.

Understandably, there are immediate and long-term effects of bereavement. While Psychological First Aid assists in immediate needs, intimate losses such as spouses, close friends, neighbors and family undermine issues as self-definition because of a lack of relational stance of importance, which can lead to long term affects (Neimeyer, 2002). Memories associated with traumatic events, rumination, or dissociating are common. Emotions and sensations tied to memory render a level of helplessness and heighten physiological reaction such that they are adapted. Hyperarousal can subject an individual to intrusive memories, avoidance, and other PTSD symptoms (Neimeyer, 2002). These issues can lead to long-term

posttraumatic pathologies. Even in the case of difficulties and pre-traumas, individuals can face a myriad of stops on the road to PTG. Challenges such as management of emotional distress, WV accommodation, and maladaptive narrative can effect outcomes. The reduction of rumination, emotional stress and distal complications can foster growth in the five domains of PTG.

Although the domains set forth by Tedeschi and Calhoun are the most positive, in employing the mechanisms of TMT (MS exposure) and SCT (SE development), it is important that using Narrative reconstruction would allow for an individual or community to recover as well as gain skills for future complications related or unrelated to the disaster or a traumatic event. Meaning making being the most important, survivors may rely on the wisdom gained in the process of grief to propel themselves to a positive outcome as outlined in Figure 1.

As disaster mental health relief, it is favorable to provide practical assistance (finding accommodations, transportation, helping to meet basic needs), build bridges (cooperative relationships among helping agencies), screen for complications (PFA, assess for complicated grief/PGCD 4-6 mo. post-event, evaluate for suicide risk as it coincides with intimate losses), train for trauma (combining of expertise of trauma mastery and grief work to relevant aid associations), take the longer review (longer-term screening and services- Crisis intervention is not always sufficient), and foster the development of healing stories in the wake of loss (Neimeyer, 2002). Not every survivor has lost all faculties, but it is advantageous for everyone involved to understand the supports needed when individuals have no structure, supports, or agency so as to facilitate growth and collective autonomy.

Discussion

Given global needs in routine disaster response, those who have experienced trauma and death are subject to posttraumatic pathology without the proper support and coping skills. In use

of self-efficacy and exposure through mortality salience, it is possible that survivors regain the agency needed to recover, and build skill toward the model of posttraumatic growth.

Self-efficacy is not only a protective factor against effects such as PTSD, but allows for an individual to meet challenges as an agent of change. In bolstering this cognitive mediator of action, studies have shown that it is a factor influencing posttraumatic growth and provides innate resources (Benight & Bandura, 2003; Benight et al., 1999). Enhancement of this feature is applicable cross-culturally and would facilitate necessary change for the survival of an individual or group. In Mortality Salience exercises, the conscious processing of one's own death may very well build on coping efficacy with the anxiety aroused by the death of others. Bandura posited that imaginal or graded threat builds coping efficacy through enacted mastery (1969). As acknowledgement of one's own death lessens the physiological arousal of anxiety, and adjusts worldview, focus on restoration oriented coping can resume to motivate an individual toward growth.

Finally, as the examples of Narrative Reconstruction have demonstrated, through using the mechanisms of reframing, a survivor of a disaster may be able to cognitively change the meaning of the event and glean a positive, significant experience rather than a crippling defeat. As future endeavors are concerned, this framework provides an adaptive skill that allows for an individual to own their previous experiences. This intervention would provide significant progress toward recovery, not only for bereaved survivors, but all individuals. In using their own language and cultural context in creating a meaningful story, it serves as a secondary process to those who do not show typical improvement after Psychological First Aid has been utilized.

In dissecting the theoretical and applied values of self-efficacy and mortality salience in the post-disaster context, worldview and agency are important factors of one's stability, and may

require further intervention in order to motivate successful recovery. These methods offer skills that promote agency and tactical traits that embody posttraumatic growth. Narrative reconstruction can be used as a form of therapeutic procedure or part of an alleviating activity for survivors of disasters, regardless of location and resource deficit. This process can facilitate growth and move toward recovery efforts with newly gained skills and outlooks touching upon each of the domains of Posttraumatic Growth (Relating to Others, New Opportunities, Spiritual Change, Appreciation for Life, and Personal Strength).

The current study is limited in breadth and lacks original data to support the hypothesis. In future studies, the author plans to compile quantitative and qualitative data through first hand research in a post-disaster community to measure the values of these methods (SE, MS, NR) against Posttraumatic Growth inventories. Although self-efficacy and mortality salience provide reasoning and supports for the use of narrative reconstruction, the mechanisms that facilitate posttraumatic growth are far more abundant, and may be more approachable and offer less “terror” inducing experiences. Terror Management Theory is often scrutinized for its unconscious underpinnings and empirical issues in exaggerated death-anxiety (see Schimmel et al. 1999; Kirkpatrick & Navarrette, 2006), but the MS hypothesis in TMT provides logical reasoning for cognitive dissonance and mechanisms in this context.

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