The Five Domains of Post-Traumatic Growth

By Claire Nana, MFT

In examining the five domains of post-traumatic growth, it is clear that each has its own unique effect on a person's life. For instance, a deepening of relationships may cause a person who was previously isolated to surround him/herself with supportive others. On the other hand, through opening and exploring new possibilities, a person may also begin to look more closely at previously unexamined life choices, such as a new vocation, place to live or life pursuit. Certainly, a greater sense of appreciation for life, as well as a greater sense of personal strength better enables a person to make positive life changes and enhances resilience against future life adversities. Tedeschi and Calhoun (2004) note that each domain has its own "paradoxical element" reflecting the notion that out of loss comes gain. Extreme vulnerability can lead to a greater sense of personal strength. Spiritual or religious doubt can lead to a deepening of faith. As Tedeschi and Calhoun (2004) state, "Recognition of these paradoxes engages trauma survivors in dialectical thinking that is similar to that described in the literature on wisdom (Baltes, Staudinger, Maercker, & Smith, 1995), and integrative complexity (Porter & Suedfeld, 1981)" (p.12).

Post-traumatic growth, as well as each of the domains that symbolize it, are generally viewed as growth-enhancing and positive, even though the experience of trauma may have been undesirable. Post-traumatic growth is much better represented by maturation or evolution that occurs through the existence of negative symptoms of trauma. In fact, it is often through the prolonged experience of these negative symptoms that greater growth outcomes are achieved.

The Advent of New Possibilities

The advent of new possibilities begins with the assumption that in order to conceive of what is possible, one must first develop a set of beliefs about herself, the world and the future. These beliefs then regulate behavior such that one adheres to that which is "normal" for him/her. For example, a person who sees himself/herself as not particularly athletic is unlikely to engage in sporting events or athletic endeavors and may even have some fear of these types of activities. On the other hand, a person who sees himself/herself as analytically gifted might pursue a law degree and seek out opportunities through this degree that showcases this particular skill. A person's behavior follows his/her unique set of beliefs and does not tend to stray too far from this. In order to change behavior, a person must first question beliefs about what is possible. In the case of post-traumatic growth, it is through the experience of the trauma itself that a person's beliefs are challenged. When trauma has a "seismic" quality, it becomes far more likely that the trauma will be life-changing (Tedeschi & Calhoun, 2004). In circumstances where trauma can be predicted, the individual continues to act in accordance with fixed beliefs and seeks to avoid the trauma and all related aspects. Additionally, should the trauma not have that seismic quality, the individual would be

unlikely to act any differently. Because seismic traumas cause a person to experience that which s/he considered previously unthinkable, fundamental beliefs are shattered. New responses to the situation are mandatory because old behaviors no longer fit. The survivor necessarily alters his/her beliefs about himself/herself and what is possible in the world. For example, a mother who considers herself physically weak may develop super-human strength when faced with the sight of her infant daughter trapped under a car. This newfound strength and action challenges her beliefs about herself. Following this event, this mother may begin to see herself as strong. The new conceptualization and self-percept might then open a range of new possibilities suited for someone who is physically strong or able, such as running a marathon, becoming a personal trainer, or even playing on a sports team.

Lindstrom et al (2013) suggest that duration of trauma may also be a factor in the size of the impact it has on the development of new self-percepts. For those who endure trauma for a longer period of time, shifts in beliefs may take longer to take hold, but once made, post-traumatic growth ensues. Should the trauma not be of the sort that causes the person to question his/her capacities and/or to doubt the outcome of the trauma, it may not result in changes in belief system nor behavior.

Zoellner and Maerker (2006) describe the Janus-Face model for conceptualizing post-traumatic growth. This model describes post-traumatic growth as both an illusory process and a constructive one. Taylor, Kemeny, Reed, Bower, and Gruenwald (2000) expound on the illusory nature of post-traumatic growth. These authors suggest that rather distorted positive illusions about growth pose a defense against distress and loss and limit cognitive processing of the event. Through dissociation, the trauma survivor may imprint parts of the traumatic experience but does not actually cognitively process the trauma and its elements. Instead, the survivor harbors illusive fantasies about overcoming the trauma and achieving growth that cannot be substantiated. While this process allows for some sort of psychological equilibrium, it does not involve the cognitive struggle that is commonly associated with post-traumatic growth. In addition, it does not result in changes in the assumptive world or belief system, nor is symptom relief likely. On the other hand, the constructive response to trauma described by Tedeschi and Calhoun (2004) facilitates growth through coping with the adverse circumstances, reflects a shift in cognitive schemas and identity and evidences a positive adjustment to the trauma. A person engaged in a constructive response to trauma would then be expected to experience a reduction in symptoms related to the trauma, as well as an increase in the awareness of the constructive response to trauma (Zoellner & Maerker, 2006). Those who adopt a more illusory response to trauma use more denial, repression and emotional suppression and have poorer health outcomes following trauma (Linley & Joseph, 2004). Coping styles that incorporate problem-solving and emotional processing are correlated with higher levels of post-traumatic growth. Indeed, the coping style that is used immediately after the trauma tends to determine the level of post-traumatic growth that will occur. The information gleaned through the traumatic process becomes the foundation for new beliefs about oneself and about new possibilities available following trauma, eventually resulting in the

awareness of benefit gained from the traumatic experience (Cann et al., 2010; Janoff-Bulman, 2006).

Another important point that Tedeschi and Calhoun (2004) make is that there is no clear definition of what type of trauma will cause a person to change his/her fundamental beliefs and recognize new possibilities. It appears that a person's subjective experience of the trauma is what predominantly influences the achievement of post-traumatic growth (Linley & Joseph, 2004). The traumatic event then will only truly be traumatic if it shatters the assumptive world and disrupts cognitive mechanisms which enable the individual to understand the world. It is then through the reconfiguration and rebuilding of these cognitive mechanisms that a person forms new cognitive schemas and beliefs about the assumptive world. On a physiological level, post-traumatic growth can be understood much in the same way: trauma shatters the normal physiology and the individual must then work to regain physiological balance. It is during this struggle that s/he begins to see things differently. Again, the event itself must be of the seismic quality, such that physiological and cognitive balance is disrupted and requires reconfiguration.

The distress which results from vulnerability, lack of control and unpredictability, serves as a necessary component of post-traumatic growth. Distress may not always subside completely but may instead remain present while post-traumatic growth is underway (Tedeschi & Calhoun, 2004). Other studies have suggested that higher levels of post-traumatic growth occur with lower levels of cognitive disruption and distress (Cadell, Regehr & Hemsworth, 2003). While many individuals report distress symptoms during post-traumatic growth, much of the research suggests that higher levels of post-traumatic growth are reported with lower levels of PTSD.

As noted above, each of these five domains tends to have a "paradoxical element" which allows the person to see that each area of growth has both negative and positive elements. It is through the struggle to reconstruct cognitive beliefs about the world that new possibilities are recognized and that the positive elements of post-traumatic growth are experienced.

A Greater Sense of Appreciation in Life

Having a sense of appreciation for life or aspects of it, allows a person to derive meaning from the activities in which s/he engages. What one appreciates, one tends to give a sense of meaning to and in doing so also develops beliefs that justify that action. For example, a person who appreciates being healthy will likely choose to live an active life and form beliefs about how and why being active enhances life. This valuation enables the development of a foundation from which a person will make action decisions. Clearly, a person who appreciates living a risky life will not decide to avoid activities that involve risk, but instead seek them out, believing that risk is a positive, growth enhancing component of life. On the other hand, a person who appreciates minimalism and simplicity will likely avoid taking on too many tasks at once, will focus on the accumulation of material possessions and become otherwise overwhelmed.

In order to have a sense of appreciation, it is essential to have ideas about what is and is not important. These ideas are generally developed through experience. Being raised in a family that is very involved in church activities might position a person to value religious service. On the other hand, depending on how this experience was presented, s/he might also develop an agnostic or even atheist attitude. Generally when experiences are presented in a way that is associated with enjoyment, not necessarily pleasure, one tends to value them. The difference, as pointed out by Martin Seligman, the father of Positive Psychology, is that pleasurable experiences are not necessarily associated with a sense of wellbeing or as Seligman calls it, the "good life". On the other hand, activities that are associated with enjoyments involve engagement or becoming immersed in something, and actively participating in achieving clear, and measurable goals. Activities such as these tend to be expansive by nature, causing self growth, and according to Seligman, they correlate highly with a sense of wellbeing and meaning. Meaning and appreciation stem from the positive feeling obtained through doing these activities. Supportive beliefs such as "it must be good because I feel good when doing it" develop as a result. Whatever the activity is, it typically calls upon our strengths and allows us to feel valuable. The sense of greater purpose leads the individual to engage in service activities such as volunteer and community work.

However, when things change drastically, as in the case of a major trauma, the individual is faced with the reality that s/he and his/her strengths are no longer what they used to be. Priorities must change to reflect what is and is no longer possible, as well as what is and is no longer important. Trauma has a way of reducing things to their most basic elements; the most basic of these is survival. When survival is threatened a greater appreciation for life emerges. Ed Giampietro, cancer survivor asserts:

> "I have always been a positive person, but the experience of having cancer has made me even more determined to live a purposeful life. I don't concern myself with life's small inconveniences, and I don't have patience for chronic complainers. I am so grateful for having survived cancer. I decided to help others going through a similar circumstance and joined Imerman Angels, a one-on-one cancer support group that matches a newly diagnosed patient with a survivor of the same type of cancer. So far, I have talked with a dozen kidney cancer patients around the country, and the experience has been very -gratifying. Now that I've been a survivor for 4 years, I don't live in constant fear that the cancer will recur, but I know that it is a possibility. If I am faced with a recurrence, I will once again put my trust in my oncology team and be open to any treatments they recommend. In the meantime, I'm living the best life I can, and I don't take anything for granted" (Giampietro, 2013, p. 17).

Giampietro's account of the struggle with cancer evidences both the enhanced sense of appreciation for living and the changed sense of meaning. This experience of re-evaluating priorities and one's own capacities is repeated many times in the accounts of those who have struggled with major life difficulties. The resulting change in priorities is

often described as a "major shift" in one's life, much like the magnitude of the trauma. This shift can lead to a greater appreciation for what remains after the trauma. Examples of this new appreciation may be experiences such as enjoying the warmth of a child's hand, the smell of fresh flowers or the "little things" that might otherwise have been missed.

After having survived a major life struggle or illness, many trauma survivors report the desire to give back, which reflects a changed sense of what is important, as well as the emergence of new strengths. In the account above, Ed developed a set of strengths and skills to make it through the battle with cancer and was then able to utilize those same strengths to enhance the lives of other survivors. While trauma survivors do not often report gratitude for the traumatic experience, they generally report feeling appreciative for the strengths generated as a result. The greater appreciation of life then leads to a critical shift in the way one approaches and experiences life.

Enhanced Personal Strength

Personal strength is rooted in experiences that provide a template from which to draw conclusions about oneself. Experiences which challenge unique skills may also provide opportunity for both the refinement of as well as the revised perception of those skills. When experience is not challenging enough, the result is boredom. On the other hand, challenges that consistently exceed an individual's resources and perception of competence lead to anxiety, fear, and ultimately avoidance. Csikszentmihalyi (1990) describes the importance of matching one's skills to the challenge in attaining a state of flow, which is conducive to increased perception of one's strength.

Csikszentmihalyi (1990) describes this connection:

"In our studies, we found that every flow activity, whether it involved competition, chance, or any other dimension of experience, had this in common: It provided a sense of discovery, a creative feeling of transporting the person into a new reality. It pushed the person to higher levels of performance, and led to previously undreamed of states of consciousness. In short, it transformed the self by making it more complex. In this growth of the self lies the key to flow activities" (p. 44).

Csikszentmihalyi describes a "flow channel" in which as challenges match skills and skills consequently rise, the need for more complex and advanced challenges arises to create an upwardly directed flow channel. As a person's skills advance and s/he achieves the state of flow, avoiding both anxiety and boredom, s/he will be drawn back to activity and with continued practice, further hone his/her skills and the perception of personal strength.

While Csikszentmihalyi's research is task specific the question becomes whether or not the perception of personal strength can then be generalized to other aspects of a person's life. Benard (2004) identifies four categories of resilience: social competence, problem solving, autonomy and a sense of purpose. Benard suggests that, "Recent

studies continue to corroborate the importance of a relatively small set of global factors associated with resilience" (p. 8). Benard also asserts that, "these competencies and strengths appear to transcend ethnicity, culture, gender, geography, and time" (p. 13).

These four traits which are the result of outcomes (being tested against challenges and life events) are said to be engaged when resilience is being developed. In what many refer to as "phenomenological resilience", activation of these characteristics provides the foreground to build increased resilience.

Social competence is associated with factors such as responsiveness, compassion, empathy, caring, communication, and altruism. Problem solving involves critical thinking, planning, flexibility and resourcefulness. Taking initiative, having a strong sense of mastery, an internal locus of control, adaptive distancing, self-efficacy, positive identity and humor are the elements inherent in autonomy. Lastly, a sense of purpose can be seen as goal directed behavior, achievement motivation, a sense of meaning, optimism, hope, creativity and imagination.

In the face of traumatic experience, a person must find a way to deal with whatever trauma presents. In order to experience growth, the individual must engage skills which may have been historically unknown in order to overcome the trauma. By activating new skills, an increased sense of personal power develops and may be categorized into four distinct dimensions. Each of these dimensions or characteristics becomes an asset in dealing with future life challenges and further promoting the sense of personal strength.

Tedeschi and Calhoun (2004) describe this process as "the identification of strength being correlated, almost paradoxically, with an increased sense of vulnerability" (p. 12). They also posit that, "growth in this domain is experienced as a combination of the knowledge that bad things can and do happen and the discovery that 'if I handled this then I can handle just about anything'" (p. 12). Tedeschi and Calhoun cite the experience of a bereaved parent to further illustrate the transformative power of traumatic experience on the sense of personal strength, "I can handle things better. Things that used to be big deals aren't big deals to me anymore. Like big crisis problems, they will either work out or they won't. Whichever way it goes, you have to deal with it" (p. 14).

Deepening of Relationships

The experience of relationship begins with the primary attachment between mother and infant. Within that attachment, the individual develops an affective and conceptual understanding of the relationship. The affective component allows the infant to develop a physiological blueprint for what a relationship feels like, while the conceptual understanding becomes the cognitive framework from which to understand the relationship. The cumulative response to interactions with early attachment figures is described as either secure or insecure.

According to Segal and Jaffe (2014), "Research reveals the infant/adult interactions that result in a successful, secure attachment, are those where both mother and infant can sense the other's feelings and emotions. In other words, an infant feels safe and understood when the mother responds to their cries and accurately interprets their changing needs. Unsuccessful or insecure attachment occurs when there is a failure in this communication of feelings" (p. 2). These authors elaborate on the impact of secure attachment, "Successful adult relationships depend on the ability to: manage stress, stay "tuned in" with emotions, use communicative body language, be playful in a mutually engaging manner, be readily forgiving, relinquishing grudges" (p. 2).

On the other hand, insecure attachment often results in unfulfilling adult relationships that cause people to distance themselves from others. When an infant reflects avoidant attachment, later relationships reflect anxiety and insecurity. With infants that experience ambivalent attachment, they often become more chaotic, insensitive and untrusting in adult relationships. In those who experience reactive attachment, the development of meaningful adult relationships becomes almost impossible.

Shaver and Hazan (2006) found that roughly sixty percent of the adult population experiences secure attachment, while about twenty percent is anxiously attached and twenty percent experiences avoidant attachment.

Clearly, it would seem as if having a secure attachment pattern would be a preventative factor in experiencing negative outcomes as a result of a trauma. Tedeschi and Calhoun (1996) suggest that, "Supportive others can aid in post-traumatic growth by providing a way to craft narratives about the changes that have occurred and by offering perspectives that can be integrated into schema change" (p. 11).

In addition to enhancing resilience, trauma challenges the very understanding of relationships and forces a schema change about relationships. According to Glassman (2005):

> "Surviving a traumatic event may alter an individual's sense of safety and trust in ways that spill over into new or old relationships. Survivors may feel vulnerable and confused about who or what is safe. People who were rarely irritable in the past, may display anger outbursts and hostile behaviors due to an increased sense of vulnerability and fear, both of which heightened after a trauma. Survivors may also find it difficult to trust others, even people they trusted in the past. It may feel frightening to get close to people for fear of being hurt again. Trauma survivors might also feel angry at their helplessness and sense of loss of control in their lives. They may become aggressive or demanding, or try to control others as a way of regaining control" (p. 22).

The paradoxical element of this domain of post-traumatic growth then becomes clear. On the one hand, trauma survivors feel more vulnerable, unsure and fearful in relationships, yet on the other hand, in order to process the traumatic event and begin the work of healing, one must begin to trust more in relationships and learn to self-

disclose about the trauma. Survivors are challenged to develop increased sense of vulnerability and trust and relationships are challenged to move to a deeper level. Tedeschi and Calhoun (2004) quote a bereaved parent, "When he died, people just came out of the woodwork...I realize that relationships with people are really important now...and I cherish my husband a lot more" (p. 12).

While realizing that relationships are integral to survival and in order to experience them at a deeper level, a trauma survivor must shift perspective of what relationships mean. Tedeschi and Calhoun (2004) quote a trauma survivor, "You find out who your real friends are in a situation like this" (p. 12). The deepening of relationships reflects a qualitative shift through which some relationships do not survive. Simply put, not all people are able to develop or sustain the depth that a trauma survivor may require in order to resolve the trauma.

As the trauma survivor develops deeper, more empathic relationships and those who are unable to reciprocate are weeded out, an increased sense of compassion (especially for those who have experienced similar losses) develops. This increased empathy and compassion enable further depth in relationship. Deepening of relationships as a growth response to trauma involves a schematic change in the way relationships are understood and experienced. While the development of relationships may require increased vulnerability, it also generates greater connection, depth, empathy and compassion.

Deepening of Spirituality

While the term spirituality has changed throughout time and has many different meanings across cultures, religions and individuals, social scientists identify a few factors that denote spirituality. The perception that something is sacred and demands reverence is a common description of spirituality. Saucer's (2007) description of spirituality as it is associated with post-traumatic growth is "a transcendent dimension within human experience...discovered in moments in which the individual questions the meaning of personal existence and attempts to place the self within a broader ontological context" (p. 32).

Trauma affects a person's spirituality as the survivor is forced to examine beliefs about his/her existence, the world, and expectations about future. Drescher (2003) suggests that this is a "moral injury" that causes, "disruption to confidence and expectations about human motivation and the capacity to behave in a just and ethical manner" (p. 11). When traumatic events are particularly inhumane, cruel and violent, the moral injury is even more apparent.

During this examination of one's beliefs about self, others and the world, there is a period described by Drescher as "moral uncertainty" during which a person is unsure of what moral principles or values now apply. Given the fundamental way in which trauma affects a person and the perception that the "rug has been pulled out from underneath

you," survivors not only wrestle with their outdated beliefs, values, and principles, but also must revise their notions about spirituality.

While the survivor struggles to find a new sense of meaning and purpose and to overcome what seems insurmountable, s/he is faced with the question of whether or not s/he can actually make it through the trauma and can regain some sense of normalcy. Many survivors report disbelief that they were able to overcome what had happened to them. This sort of disbelief may cause survivors to consider that something greater than themselves facilitated their recovery. Tedeschi and Calhoun (2004) share one such account:

> "You think about getting through something like that and it's downright impossible to conceive of how you ever could. But that's the beauty of the thing... it's gonna have to be said because I believe that God got me through it. Five or six years ago, I didn't have these beliefs. And I don't know what I would do without Him now" (p. 8).

With a deepened sense of spirituality and the notion that there is something that transcends the self, a survivor typically experiences emotions that Haidt and Keltner (2004) describe as being distinct from other positive emotions in that they do not primarily concern the self or the self's goals or normal petty concerns. Self-transcendent positive emotions also promote prosocial behavior and a desire to become a better person (Cox, 2010; DeSteno, Bartlett, Baumann, Williams, & Dickens, 2010; Rudd, Vohs, & Aaker, in press; Schnall, Roper, & Fessler, 2010).

The ameliorative effect of self-transcendent emotions can be seen through a deepened connection to something larger than the self, which facilitates an enhanced spirituality. Cappellen, Saraglou, Iwiens, Piovesana, Frederickson (2004) suggest that certain specific positive emotions generate an upward spiral toward greater spirituality, which in turn leads to subsequent experiences of positive emotions. In examining the relationship between self-transcendent emotions and spirituality, these researchers demonstrated that self-transcendent positive emotions can lead to increased feelings of spirituality rather than spirituality causing increased self-transcendent emotions.

Even individuals who are not religious (even those who consider themselves atheists) can experience growth. Tedeschi and Calhoun (2004) note, "We find greater engagement with the fundamental existential questions and engagement itself may be considered growth" (p. 13). By pondering their beliefs about self, others, and the world, survivors may have a richer, and more complex moral experience from which to draw and thus, become more morally developed themselves. In what Drescher (2003) describes as states of "moral uncertainty, moral dilemma, and moral distress," a person is forced to confront the fundamental questions that Tedeschi and Calhoun note, and in doing so, finds resolutions that lead to a more highly developed sense of morality.

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