Chapter 3

Posttraumatic Growth: Challenges from a Cross-Cultural Viewpoint

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Recent studies have shown that both short- and long-term human responses to adversity are quite varied (Bonanno, 2004). Symptoms and distress are expected and relatively frequent, yet traumatic experiences can also give rise to positive transformation. Though more research is needed to better understand the nature of those changes and the underlying processes, in this chapter we examine if the connection between psychological growth and trauma is universal or linked to a cultural viewpoint. We additionally make recommendations on how to stimulate growth processes through specific psychological interventions.

Trauma-Related Responses: From Vulnerability to Posttraumatic Growth

There have been three stages in the history of research on psychological trauma. The first, from 1980 to the early 90s, was dominated by the definition of trauma in the DSM-III (APA, 1980) that establishes universal vulnerability to the stressor that "would evoke significant symptoms of distress in *almost everyone*" (APA, 1980, p.236, italics added). In this stage, most research focused on the negative effects of trauma (McNally, 2003; Bonnano et al., 2010).

The second stage arose in the mid 80s when it was found that serious life events do not necessarily cause mental disorders. Epidemiological studies in the USA, Europe, and Australia showed that only a relatively small percent of the population—1.9% in Europe to 8% in the USA—have a life-time diagnosis of posttraumatic stress disorder (for a review, see Vázquez, 2005), though at least two thirds suffer a potentially stressful life event, as defined in the DSM-IV (APA, 2000). In other words, despite significant national differences still largely unexplained, most (35%-65%) show resilience when confronted with these events (Bonanno, Westphal, & Mancini, 2011).

In the current third stage, researchers have focused their attention on positive aspects of traumatic experiences, expanding on the idea of resilience. Positive feelings are not

excluded from the flow of emotions that a person may experience during and after trauma. For example, positive feelings and beliefs (e.g., feelings of solidarity) were found in community samples exposed to political violence (Vázquez, Pérez-Sales, & Hervás, 2008), natural disasters (Vázquez, Cervellón, Pérez-Sales, Vidales, & Gaborit, 2005), heart failure (Castilla & Vázquez, 2011), and even in locked-in syndrome (Bruno et al., 2011). These findings are supported by the fact that positive and negative affect are relatively independent (Carver & Scheier, 1990). This emotional architecture has deep implications for understanding trauma reactions as people can simultaneously value positive and negative effects of a traumatic experience even within the same domain (e.g., social relations). Consequently, we should develop assessment instruments that can gather this complex array of reactions (Baker, Kelly, Calhoun, Cann, & Tedeschi, 2008; Cann, Calhoun, Tedeschi, & Solomon, 2010; Pérez-Sales et al., 2012).

Furthermore, research in Western countries has shown that people exposed to traumatic events may experience positive changes as a result of those encounters. This phenomenon has been described as posttraumatic growth, thriving, stress-related growth, benefit finding, positive changes, and adversarial growth, among other names. Although there are significant epistemological and conceptual differences among these terms (see Park, 2009), in this chapter we will use the generic term posttraumatic growth (PTG) as this expression, initially coined by Tedeschi and Calhoun (1996), is commonly used in the literature. It refers to positive cognitive and behavioral changes after trauma. PTG, or similar positive changes after suffering extreme adversities, has been found in events as diverse as natural disasters, cancer, community violence, terrorist attacks, and sexual assault (Linley & Joseph, 2004; Joseph, 2011). According to systematic reviews of the literature, as much as 50-60% of survivors may display these changes (Linley & Joseph, 2004; Helgeson, Reynolds, & Tomich, 2006).

Since there are no standard causal models, positive life changes after an adverse incident have been interpreted very heterogeneously (Zoellner & Maercker, 2006; Sumalla, Ochoa, & Blanco, 2009; Tennen & Affleck, 2009) such as: 1) adaptive (e.g., positive illusion) or

disadaptive (e.g., denial, wishful thinking) distortions of reality; 2) coping strategies (e.g., positive reassessment or reframing of the event); 3) personality changes (e.g., optimism, resilience); 4) reflections of implicit theories on the possibility to change (Conway & Ross, 1984; Tennen & Affleck, 2002); 5) self-enhancement through biased comparisons with the past or with others (Tennen & Affleck, 2009); and 6) genuine changes of behavior and identity.

In what areas can change be expected? According to the influential assessment model of Tedeschi and Calhoun (1996), likely reflecting a Western worldview, positive changes can be observed in several domains: a) self-concept (e.g., new valuation of one's own strength and resilience); b) appreciation of new possibilities in life; c) social relations (e.g., feeling emotionally closer to others, especially family and friends); d) life philosophies (e.g., reordering of values and priorities); and e) spiritually (e.g., increased participation in religious activities).

Posttrauma Reactions: From Symptoms to Shattered Core Beliefs

In current systems of psychiatric classification (i.e., DSM and ICD), there are detailed descriptions of certain characteristic symptoms of trauma (i.e., reexperiencing the event, avoidance, and hyperarousal). Although transcultural validity has not yet fully been demonstrated, these symptoms indicate that trauma can profoundly undermine the functioning and psychological integrity of the individual and the individual's identity (Walter & Bates, 2012). However, the symptom list does not fully capture the profound psychological changes that trauma can produce and that partly explains the processes of PTG.

Prior to the first studies on PTG, Janoff-Bulman (1989, 1992) proposed a highly influential model to explain changes stemming from traumatic experiences. According to this author, trauma can shatter core beliefs (i.e., basic assumptions) about the world, others, and oneself. Recuperation, and possible growth, would consist of a laborious and possibly time-consuming process of accommodation to the new reality (Joseph, 2009, 2011). Traumatic events can ignite disbelief in God in previously religious people for instance (Falsetti et al.,

2003; Exline, Park, Smyth, & Carey, 2011), or generate general distrust or feelings of living in a radically unjust world. This shattering of core beliefs (e.g., that we live in a just or predictable world, or that we are valuable in spite of our circumstances) can explain in many cases (Janoff-Bulman, 2004) the profound emotional impact and existential crisis that extreme trauma can cause. Current models of PTG, from diverse theoretical realms, maintain that both the intensity of the traumatic response and the possibility of PTG are to a certain extent a consequence of the degree of shattering of those basic beliefs and the process of their reconstruction (Park, 2010).

However, evidence that shattered beliefs are causally linked to severity of trauma responses and eventual PTG is very scarce. Support for the role of preexisting worldviews in the onset of psychological issues in the Western context basically comes from longitudinal studies of Bonanno et al. (2002), and Mancini, Prati, and Bonnano (2010), who found that pretrauma measures of beliefs (in justice or self-worth) predict PTSD symptoms. By contrast, there is minimal evidence that worldviews measured *after* a potentially traumatic event predict later adjustment. Studies conducted with participants who suffered a spousal loss or heart attack found no relation between worldviews and severity of symptoms across time (see Bonnano et al., 2011). Most positive changes possibly arise from experiences in which the individual's global meaning is challenged but not extensively violated or deeply shattered.

Factors Associated With PTG

Although neither factors involved in PTG nor predictors that favor or hinder PTG are well understood (see Walter & Bates, 2012), current research, including some metanalyses (Hegelson et al., 2006; Prati & Pietrantoni, 2009), provide promising indices of variables significantly associated with PTG. In Table 1, we have summarized the most relevant findings. Therapeutic interventions should be guided or inspired by findings derived from research in

ideal research translation. Nevertheless, there is still a lack of basic answers regarding PTG and even more so if we employ a transcultural viewpoint.

Insert Table 1

The Transcultural Perspective: An Epistemological Challenge to the Idea of Growth

All previous concepts originate from studies in an occidental cultural environment. Notions such as stress, trauma, and PTG are not perfectly transferred to other cultural settings. For example, Das (1995, 2006) developed an anthropological psychology of suffering considered a more accurate representation of the Indian concept of life. Compared with the common view of stress as perturbing to habitual homeostasis, the Indian concept of suffering refers to an intrinsic life condition; thus, human beings must develop detachment, immutability, and compassion to dominate it. As Das reflects, "at some point, all humans will suffer illness, bereavement, and death; most will suffer stress in their family, work, or spiritual lives; some will suffer from poverty, hunger, and torture. Suffering is not the extraordinary."

Thus, suffering must be seen "as a part of normal life" (Kleinman & Kleinman, 1999). From this perspective, stressful or adverse life events may not be episodic or infrequent but continuous. Occidental academic models argue that trauma and growth are linked to discrete, identifiable traumatic events. Yet from a more holistic perspective, stress (and growth) can be linked to any life circumstance, discrete or continuous, that involves identity or existential issues, or that put into play the resources, and collective and individual abilities for survival.

The Limits of the Concepts of Trauma and PTG

Cultural context molds experience and the *determinants of stress* (Pérez-Sales, 2008), shaping the types of events that an individual is likely to experience as traumatic or stressful,

the appraisal of stressfulness, and the unconscious emotions and coping strategies that individuals utilize in a situation. Culture also provides different institutional mechanisms by which an individual can cope with trauma or stress, and influence others' reactions in a situation. Thus, PTG and the associated processess very likely depend a great deal on cultural factors that surround the individual (Calhoun, Cann, & Tedeschi, 2010; Vázquez & Páez, 2010).

A genuine transcultural view of PTG involves analyzing: (a) if a similar concept exists in most cultures; and (b) what its nature would be from *emic* (from within the culture) and *etic* (by observers outside of the culture) perspectives. A recent review (Splevins, Cohen, Bowley, & Joseph, 2010) showed that the majority of available information come from etic studies based on the translation and reinterpretation of psychometric scales, essentially the Posttraumatic Growth Inventory (PTGI), devised and elaborated within the occidental culture. The review demonstrates the difficulties of the PTGI's use in the contexts of China, Japan, Turkey, and Palestine, and the necessity for profound conceptual adaptations. These studies run the risk of succumbing to what can be called the *categorial fallacy* in assuming that the construct measured by the instrument exists in a certain culture simply because the population can respond to and obtain a given score on the instrument. In an interesting linguistic work, Almedon et al. (2005) showed that the word "loser" (content in the Sense of Coherence Scale) was incomprehensible as a concept and did not have an equivalent for Eritreans. Therefore, the mental universes of cultures can be very different from one another.

A first conceptual limit is the nonuniversality of what we consider a *stressor*. Nancy Scheper-Hughes (1993) studied the reaction of Brazilian mothers of low socioeconomic status to the death of their children. The author was initially shocked to observe that after the death of a baby, there was no process of mourning. She concluded that spouses, partners, and babies are considered temporary commitments and are thus replaceable. A "test" period is established in which each pregnancy is welcomed ambivalently, and each newborn is adopted with caution and an apparent lack of empathy that increases in the following months if the

child survives. Furthermore, the death of a child is not seen as traumatic. The dead child is believed to have guaranteed happiness in the other world. In sum, there is social modeling of feelings and emotions when facing extreme events that contrast with some of the preconceptions we may have from a universalist psychological approach. To automatically use concepts such as mourning, trauma, and PTG would be futile and inadequate.

Secondly, is the idea of *growth* transculturally valid? It may initially seem to underlie a notion of *overcoming* more suitable for individualistic cultures (Splevins et al., 2010). However, from a larger transcultural outlook, most groups establish patterns considered desirable and define a behavioral ideal that guides life reconstruction in adversity. A distinct issue is if these processes fit well with current explicative models of trauma and PTG (Weiss & Berger, 2010).

We will present three examples that allow for reflection on the limits of these concepts when applied to diverse cultural and mental configurations:

The mapuche community: An emic-based approach to PTG. The mapuche town, with a population of around 2 million, occupies the south of Chile and part of Argentina. Its inhabitants are of a native indigenous, collectivistic culture that has no assimilable concept of trauma in its ethnomedicine or language (Perez-Sales, Bacic, & Durán-Perez, 1999). They believe that psychological illness is not inside (e.g., shattered beliefs destroyed by trauma) but outside, penetrating and affecting the whole person, and should be expelled. The impact of a traumatic event can be interpreted as disruption of a balanced system (e.g., with ancestors, oneself, the land, and supernatural forces) that allows illness to penetrate (Pérez-Sales, 2006).

PTG presupposes progression toward “the correct way of living.” In a certain sense, growth can be understood as a continuous process of gaining wisdom and an ideal identity as a human being in a series of dominions well guided by tradition (e.g., respect for the laws of nature or being fair), and that not all people are able to reach (Antona, 2011).

***Susto* as a paradigm of "pure" trauma.** Syndromes have been described in different cultures that are unleashed by unexpected events constituting threats to the physical or psychological integrity of a person (Simmons & Hughes, 1985). A notable example for its frequency and characteristics is *susto* (fright sickness causing *soul loss*), present in almost all of Latin America (APA, 2000). In psychiatric antropology work on *susto* most widely published to date and conducted in communities of southern Mexico (Chiapas, Oaxaca), a total of 47 cases diagnosed by traditional healers were studied with quantitative and qualitative methodologies, and followed over various years (Rubel, O'Nell, & Collado, 1984). Causes of onset are triggering events such as a fire in which the house and clothes are burned leaving the family unprotected, a child who is attacked by a dog, and a woman who falls from a tree and is carried away by a strong current. The appearance of *susto* symptoms (e.g., tiredness, lack of spirits, major depression, and loss of appetite, weight, and energy) can occur hardly hours after the triggering event to a few years later. In more than half of all cases, *susto* leads to isolation (especially of adults), detachment of trust-based ties with others, fear, and insecurity. The cure involves a complex healing process to extract the illness or make the lost soul return, and above all, to rebalance personal spaces in line with a typical mapuche healer's duties (e.g., family relationship issues, feelings of inability to confront daily suffering, lack of community support, or violation of norms in regard to relations with the land).

The endeavor to recuperate a person's *essence* and find equilibrium in personal spaces is what could be identified as psychotherapeutic work directed toward PTG with the person's individual and societal identities (i.e., valuing tradition, improving relationships, and respecting collective norms), though this might be a forced conceptual translation. *Susto* in reality is, as we saw, a person's suffering made physical in line with Das' theory.

Extreme trauma: Young Sudanese refugees. A good part of Euroamerican literature on growth originated from survivors of the Holocaust. A third way to find the limits of the

concepts of trauma and growth is to analyze examples of extreme traumatization in the context of contemporary holocausts, which have occurred in Arab and subsaharan countries, Rwanda, and Sudan. In an excellent ethnographic study, Goodman (2004) investigated the mechanisms of resistence and worldview of 14 Sudanese youth of the Dinka tribe aged 16 to 18 years who lived through absolute horror (years of being abandoned to their own devices, being victims of group assessinations, torture, acts of massacre and terror, persecution, and hunger and death of friends by starvation). In interviews 6 to 12 months after arriving in the USA, the youth participants expressed feelings of fellowship, benevolence, and hopefulness rather than victimization or resentment. Speaking primarily with the pronouns *we* and *us*, the participants identified themselves and recounted events as part of the refugee group. These Sudanese youth lived in the moment both individually, with strong cognitive and emotional detachment from facts, and collectively, encouraging one another to not think and remember. Their narratives of horror were unemotional and nonjudgmental. Through an unshakable faith in God's will and omnipotence (i.e., "God decides when you die"), the participants were able to steer clear of questioning their suffering and existence (Goodman, 2004).

Was there PTG in this group of Sudanese youth? Their resilience, and perhaps growth (as their stories represent the path from hopelessness to hopefulness), is based on not looking for meaning, not questioning purpose or priorities, and not asking why and how they acted as they did. In fact, their spirituality is more a way to block thinking than true religiousness. This coping approach in certain ways violates the typical elaborative processes that survivors are supposed to follow to construe meaning and psychologically grow (Park, 2010). Interestingly, Janoff-Bulman (2004) proposed different ways that lead to PTG and only one includes changes in basic beliefs through the reflective process. Thus, there is evidence that people can be strengthened by an adverse experience without even being aware of it.

The aforementioned examples span the continuum of human suffering and highlight cultural differences. This is exemplified by the Sudanese youth refugees who were born and

enculturated in a context of extreme violence, possibly never developing excessive expectations of goodness and trust in humans, of predictability, of security, or of the idea that the world is fair and that everyone receives what they deserve (Janoff-Bulman, 1992).

Facilitation of PTG: Strategic Approaches and Specific Techniques

PTG theorists place emphasis on a kind of cognitive restructuring after confrontation with extreme experiences. There are even initiatives to establish a PTG component in trauma prevention programs (Tedeschi & McNally, 2011). Yet, deep positive changes are likely produced even without effort and are not necessarily linked to true insight (Zoellner & Maercker, 2006). The survival experience of the Sudanese youth supports the idea that life changes are not based on mere declarative statements (Johnson & Hobfoll, 2007; Hobfoll et al., 2007). As taught in Buddishm, personal growth must be understood from a deep transpersonal level as an ongoing, holistic process of change (Wong & Wong, 2006).

It should be emphasized that the majority of approaches and techniques we will present (see Table 2) have demonstrated potential in facilitating PTG in samples of occidental participants who have gone through adverse experiences in their own contexts (e.g., grave illnesses or accidents).

Insert Table 2

Calhoun and Tedeschi (1999), pioneers in creating a clinical guide to promote PTG, suggested that this new approach could be integrated by therapists of different psychotherapeutic orientations. Its goal would be to compensate for traditional clinical approaches more focused on the negative with greater inclusion and integration of positive elements of growth and personal development (Tedeschi & Kilmer, 2005).

Caution should be taken when using PTG with people who have experienced a potentially traumatic event. First, they may not need help. Most (50-60%) spontaneously experience positive life changes after an adverse event (Linley & Joseph, 2004; Helgeson et al., 2006), suggesting that this may be a natural process that does not require clinical intervention. Premature or forced intervention can undermine natural recuperation, which can result in feelings of being misunderstood or in distancing from the therapist (Cordova, 2008; Pérez-Sales, 2008). Second, although there is increasing evidence on the adaptive value of growth (Sawyer, Ayers, & Field, 2010), we still lack knowledge on how, when, and with whom it is therapeutic to promote the process more generally. Third, interventions are usually carried out with a culturally appropriate therapeutic framework given that the trauma-growth duo can have very different cultural variations as previously demonstrated.

Strategic Approaches

Curiosity. Adverse effects are frequently considered strange, unknown, and alien in terms of a person's previous experiences, and difficult to understand and explain. Curiosity as a life attitude is a mechanism of survival that facilitates the development of new abilities and forms of understanding reality, and of definite growth. In fact, people rated high on personality dimensions such as *openness to experience* characterized by being imaginative, emotionally reactive, and intellectually curious, have a greater tendency to try PTG (Tedeschi & Calhoun, 1996). This suggests that therapeutic intervention itself usually has an investigatory character that encourages openness and curiosity about the affected person's existential position in the world and relation with others posttrauma. The focus is normally on personal identity after the event (i.e., "Who am I after having gone through this?"), which promotes specification of internal dialogues about *the before* and *the now* to help recognize the adverse event's influence on life, a preliminary step in PTG (Cordova, 2008).

Realistic acceptance. As we have seen, research has shown a link between acceptance, coping, and PTG. The ability to accept and deal with situations that cannot be changed is crucial in facing adverse life situations, and is a prerequisite for working on complex emotions such as guilt (Pérez-Sales, 2006) and for fostering personal growth (Calhoun, Cann, Tedeschi, & McMillan, 2000). Be forewarned that the association is not linear, so more acceptance does not necessarily mean more growth; instead, acceptance facilitates growth.

Locus of control and flexibility. Perception of the possibility, though small, to successfully cope is another relevant therapeutic factor. It is likely that those with more self-control are more flexible since they score higher on various psychological well-being dimensions and exhibit flexibility-related strengths such as curiosity and perseverance. This suggests that psychological flexibility may be key to well-being (Kashdan & Rottenberg, 2010).

Promotion of optimism. Optimism is a general disposition or tendency to hope that good happens more often than bad. Several studies have shown a small-to-moderate correlation between optimism and PTG (Park, Cohen, & Murch, 1996; Tedeschi & Calhoun, 1996), although there may be overlap between the concepts (Zoellner & Maercker, 2006).

Specific Techniques: Exploration and Promotion of Positive Life Changes

Many techniques can be implemented in standard psychotherapeutic processes (Calhoun and Tedeschi, 1999; Joseph, 2011; Joseph and Linley, 2006). In this chapter, we focus on some techniques that can facilitate long-term positive changes. Others (e.g., recalling memories of success, working with strengths, and visualizing a better future; see Table 2) can be used but will not be explained in detail due to space constraints.

Giving meaning to the experience. A recent review (Park, 2010) on the effects of

meaning making in adjusting to stressful events attempts to integrate studies in a field that paradoxically lacks coherence. Models of dealing with traumatic situations examine ways to promote the construction of meaning posttrauma. Giving meaning to an adverse experience concerns, on one hand, establishing continuity between the past, the traumatic experience, the present, and the capacity for future projection, and on the other hand, diminishing discrepancies between responses when facing events through peritraumatic assimilation (appraised meaning), and through principles and overall goals (basic beliefs; Joseph & Linley, 2005). Some approaches and techniques that facilitate PTG through meaning making are:

Fulfillment patterns versus problem patterns. In psychotherapy, *problem patterns* connect events, people, and emotions in search of problematic patterns that give sense to suffering or discomfort. Little attention is paid to establishing connections between elements that recur to our satisfaction, and that produce fulfillment and purpose in life. These connections between the past, present, and future that are positive and meaningful are called *personal guidelines for fulfillment* (Ochoa et al., 2010).

The easiest personal guidelines for fulfillment to establish correspond to meaningful anchors that help maintain continuity after the event (e.g., “my family has always been there,” “my partner still makes me feel loved,” and “work makes me feel useful and worthy”).

Positive autobiographical memories. The role of traumatic memories in the psychological treatment of trauma has been the subject of much research (Leskin, Kaloupek, & Keane, 1998). Nevertheless, we only recently have data on the therapeutic ability of bringing positive biographical memories to the surface. The role of memory in achieving a sense of growth is very relevant. In fact, recalled growth but not measured growth generates positive affect (Tennen & Affleck, 2009). Carver and Scheier (1990) have also demonstrated that information about change over time gives rise to positive affect.

Recalling memories by writing or imagining, guided by positive autobiographical episodes (Serrano, Latorre, Gatz, & Montanes, 2004; Ochoa et al., 2010), can bring to mind what was lost or what happened (and the associated emotion of feeling lost) but can also lead to reexperiencing pleasant sensations, construction of one's personal autobiography, a sense of progress, and probably PTG. Another therapeutic effect of bringing forward positive memories is that remembered experiences or similar ones are then more likely to repeat (behavioral activation). In fact, Wirtz, Kruger, Scollon, and Diener (2003) showed that recalled experience rather than measured experience predicts interest in and willingness to repeat it.

Relational growth. A clinical indicator of improvement in mental health and of personal growth is the ability to transcend one's own "ego" (Joseph, 2011). Relational growth involves the ability to take the focus away from oneself to be interested in, worry about, and commit to others, and in a more affective sense, to love and be loved, which seem key to facilitating PTG. If the deep desire for interpersonal relationships human beings show is a foundation of our psychological life, then we should regard personal growth as necessarily linked to the optimization of our interpersonal relationships (Fernández-Liria & Rodríguez Vega, 2006).

Arousing interest in others. In therapy, there are multiple interventions that attempt to improve communication and relationships with others for personal and relational growth, especially through a partner, family, and groups. In general, these interventions make it easier to develop a type of empathic or relational conscience. The objectives are to vicariously experience the emotions and intentions of others, to understand others' limitations, to discover the role of the affected person's own influence or responsibility in interactions, to be conscious of his or her own necessities, and to know how to communicate them. Procedures that favor a reduction of self-focus to develop interest in others likely promote relational PTG.

Positive models in adversity. *W*hen going through potential trauma, many search for information, references, and models to understand and face the adversity. Normally, coping models are others affected or meaningful personal references. People should also be conscious of how they can be coping models for others because there are data that indicate, for example, that PTG in breast cancer patients predicts PTG in their husbands (Weiss, 2004a).

If personal growth or PTG can be understood as changes made that bring us closer to a preferred (or "ideal") version of ourselves in diverse areas, then in relational growth, the model (whether external and personified, or ideal and interiorized) would guide this process. Weiss (2004b) demonstrated the importance of this modeling in women who had contact with other breast cancer survivors who perceived benefits from their experience, noting significantly greater search for benefits (positive life changes) in contrast with women who did not have this contact. In PTG, corroboration of this growth or passing it on to meaningful people has been associated with true growth (Sumalla et al. 2009).

Gratitude and forgiveness**.** Adverse situations can affect how we view others and their kindness. If a person causes the adverse event (e.g., rape or political violence), the potential for trauma may be even greater as the event undermines basic beliefs about the world and others, nurturing emotions such as anger (McHugh, Forbes, Bates, Hopwood, & Creamer, 2012). In relation to attribution processes, blaming others has been linked to poor adjustment and may justify interventions based on forgiveness to alleviate PTSD and allow psychological growth (Van Loey, Van Son, Van der Heijden, & Ellis, 2008)

However, personal relationships can still be affected by impersonal incidents (e.g., sickness or natural disaster). In these cases, affected people commonly undergo a process of selection between those who were at their side and supported them, and those who failed or disappointed them. Gratitude-based Interventions rely on increasing awareness of having

externally received something positive (generally, from another person), and exploring the possibilities of identifying or recognizing it (e.g., letters of appreciation or public recognition).

Final Comments

The idea of perpetual possibilities of change underlying concepts such as PTG and flourishing is probably not universal despite being common in modern Western societies, or if universal, its magnitude and relative importance in our cultural scripts can be very different. Tennen and Affleck (2009) convincingly argued that this cultural bias may lead Americans to overestimate positive change from negative events, and to become frustrated and distressed if changes according to these expectations of psychological growth are not observed.

Values underlying the idea of human growth are likely not the same across cultures. Whereas some societies value change, others value constancy. There are societies that encourage self-examination, self-criticism, and self-correction in the pursuit of an ideal (i.e., a fulfilled person) while others encourage inhibition or absence of conflict for the sake of personal or social harmony. Some societies value struggle and active coping, but others (usually labeled as fatalistic) have historically shown resistance through mechanisms of acceptance and continuity (Scott, 1992). In cultural environments where change is generally perceived to be distant, and fatalism and silence are forms of resistence, asking people if they can emerge strengthened by an experience is likely not understood because suffering is part of the processes and natural cycles of life.

We live in a world where human beings, in many underdeveloped countries, cope daily with harsh conditions and the fight for survival. Concepts such as stress, trauma, and crisis are partial views of a more complex reality encompassed by the term *human suffering*, including individual and collective elements, and determined by the political and sociocultural context. If we understand growth as the process of acquiring wisdom to live in society, then which is the kind of wisdom that each society finds desirable? Any intervention, societal or individual,

must take into account the cultural and epistemological framework in which individuals live; otherwise, we would be imposing our worldview on others.

References

Almedom, A. M., Tesfamichael, B., Saeed Mohammed, Z., Muller, J., Mascie-Taylor, C. G. N., and Alemu, Z. (2005). "Hope" makes sense in eritrean sense of coherence, but "loser" does not. *Journal of Loss & Trauma, 10,* 433-451.

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.). Author: Washington, DC.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. Text Revised.). Author: Washington, DC.

Antona, J. (2011). *Etnografia de los derechos humanos. Etnoconcepciones de los pueblos indigenas de América: el caso mapuche.* Universidad Complutense de Madrid.

Arënliu, A., and Landsman, M.S. (2010). Thriving in postwar Kosova. In T. Weiss and Berger, R. (eds.), *Posttraumatic growth and culturally competent practice: Lessons learned from around the globe* (pp.). New York: Wiley.

Baker, J. M., Kelly, C., Calhoun, L. G., Cann, A., and Tedeschi, R. G. (2008). An examination of posttraumatic growth and posttraumatic depreciation. *Journal of Loss and Trauma*, 13, 450–465.

Bonanno, G. A. (2004). Loss, Trauma and Human Resilience. *American Psychologist, 59,* 20-28.

Bonanno, G. A., Brewin, C. R., Kaniasty, K. & La Greca, A. M, (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest, 11*, 1-49.

Bonanno, G. A., Westphal, M., and Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, *7*, 511-535.

Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., Carr, D., & Neese, R. M. (2002). Resilience to loss and chronic grief: A prospective study from pre-loss to 18 months post-loss. *Journal of Personality and Social Psychology, 83*, 1150-1164.

Bruno, M. A., Bernheim, J. L., Ledoux, D., Pellas, F., Demertzi, A., and Laureys, S. (2011). A survey on self-assessed well-being in a cohort of chronic locked-in syndrome patients: happy majority, miserable minority. *BMJ Open,* 1, e000039. doi:10.1136/bmjopen-2010-000039.

Butler, L. D., Koopman, C., Azarow. J., Blasey, C. M., Magdalene, J. C., Dimiceli, S., et al. (2009). Psychosocial predictors of resilience after the September 11, 2001 terrorist attacks. *Journal of Nervous and Mental Disease, 197,* 266-273.

Calhoun, L. G., Cann, A., and Tedeschi, R. G. (2010). The posttraumatic growth model. . In T. Weiss and Berger, R. (eds.), *Posttraumatic growth and culturally competent practice: Lessons learned from around the globe* (pp.1-14). New York: Wiley.

Calhoun, L. G., Cann, A., Tedeschi, R. G., and McMillan, J. (2000). A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress, 13*, 521-527.

Calhoun, L.G., and Tedeschi, R.G. (1999). *Facilitating posttraumatic growth: A clinician's guide*. Mahah, NJ: Lawrence Erlbaum Associates.

Cann, A., Calhoun, L.G., Tedeschi, R.G., and Solomon, D.T. (2010). Posttraumatic growth and depreciation as independent experiences and predictors of well-being. *Journal of Loss and Trauma, 15,* 151-166.

Carver, C. S., and Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control process view. *Psychological Review, 97,* 19-35.

Castilla, C., and Vázquez, C. (2011). Stress-related symptoms and positive emotions after a myocardial infarction: a longitudinal analysis. *European Journal of Psychotraumatology, 2.* DOI: 10.3402/ejpt.v2i0.8082

Conway, M., and Ross, M. (1984). Getting what you want by revising what you had. *Journal of Personality and Social Psychology, 47,* 738-748.

Cordova, M. J. (2008). Facilitating posttraumatic growth following cancer. In S. Joseph and A. Linley (Eds.), *Trauma, recovery, and growth: positive psychological perspectives on posttraumatic stress* (pp. 185-207). New York: Lawrence Erlbaum Associates.

Das, V. (1995). *Critical events. An anthropological perspective on contemporary India*. Delhi: Oxford University Press.

Das, V. (2006). *Life and Words: Violence and the Descent into the Ordinary.* California University Press, Ed.).

Exline, J. J., Park, C. L., Smyth, J. M., and Carey, M. P. (2011). Anger toward God: Five foundational studies emphasizing predictors, doubts about God's existence, and adjustment to bereavement and cancer. *Journal of Personality and Social Psychology, 100,* 129-148.

Falsetti, S.A., Resick, P.A., and Davis, J.L. (2003). Changes in religious beliefs following trauma. *Journal of Traumatic Stress, 16*, 391-398

Fernández-Liria, A., and Rodríguez Vega, B. (2006). *Habilidades de entrevista para psicoterapeutas.* Bilbao: Desclee de Brouwer.

Folkman, S. (2008). The case for positive emotions in the stress process. *Anxiety, Stress, and Coping*, 21, 3-14.

Fredrickson, B.L., Tugade, M.M., Waugh, C.E., and Larkin, G.R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, *84,* 365-376.

Goodman, J. H. (2004). Coping with trauma and hardship among unaccompanied refugee youths from Sudan. *Qualitative Health Research*, *14*, 1177-1196.

Helgeson, V.S., Reynolds, K.A., and Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth*. Journal of Consulting and Clinical Psychology*, *74,* 797-816.

Hobfoll, S.E., Hall, B.J., Canetti-Nism, D., Galea, S., Johnson, R.J., and Palmieri, P.A. (2007). Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology: An International Review*, *56,* 345-366.

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7, 113–136.

Janoff-Bulman, R. (1992). *Shattered assumptions: towards a new psychology of trauma*. New York: The Free Press.

Janoff-Bulman, R. (2004). Posttraumatic growth: Three explanatory models. *Psychological Inquiry, 15,* 30-34.

Johnson, R., and Hobfoll, S. (2007). Posttraumatic growth: action and reaction. *Applied Psychology*, *56*(3), 428-436.

Joseph, S. (2009). Growth following adversity : positive psychological perspectives on posttraumatic stress. *Psychological Topics, 18,* 335-344.

Joseph, S. (2011). *What doesn't kill us: The new psychology of posttraumatic growth*. New York: Basic Books.

Joseph, S., and Linley, P. A. (2006). Growth following adversity: theoretical perspectives and implications for clinical practice. *Clinical Psychology Review, 26*, 1041-1053.

Joseph, S., and Linley, P.A. (2005). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of General Psychology, 9,* 262-280.

Kashdan, T. B., and Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical Psychology Review, 30*, 865-878.

Kleinman, A., and Kleinman, J. (1999). The moral, the political and the medical: a sociosomatic view of suffering. In Y. Otsuka, S. Shizu, and S. Kuriyama (Eds.), *Medicine and the history of the body*. Tokyo: Ishiyaku Euroamerica.

Kliem, B. and Ehlers, A. (2009). Evidence for a curvilinear relationship between posttraumatic growth and posttrauma depression and PTSD in assault survivors. *Journal of Traumatic Stress*, *22,* 45-52.

Lechner, S.C., Carver, C.S., Antoni, M.H., Weaver, K.E., and Phillips, K.M. (2006). Curvilinear associations between benefit finding and psychosocial adjustment to breast cancer. *Journal of Consulting and Clinical Psychology, 74,* 828–840.

Leskin, G. A., Kaloupek, D. G., and Keane, T. M. (1998). Treatment for traumatic memories: Review and recommendations. *Clinical Psychology Review,* 18, 983-1001.

Levine, S. Z., Laufer, A., Hamama-Raz, Y., Stein, E., and Solomon, Z. (2008). Posttraumatic growth in adolescence: examining its components and relationship with PTSD. *Journal of traumatic stress*, *21*(5), 492-496.

Linley, P. A., and Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, *17,* 11–21.

Mancini, A.D., Prati, G., and Bonanno, G.A. (2010). Do shattered worldviews lead to complicated grief? Prospective and longitudinal analyses. Manuscript submitted.

McHugh, T., Forbes, D., Bates, G., Hopwood, M., and Creamer, M. (2012). Anger in PTSD: Is there a need for a concept of PTSD-related posttraumatic anger? *Clinical Psychology Review, 32,* 93–104

McNally, R. J. (2003). Progress and controversy in the study of posttraumatic stress disorder. *Annual Review of Psychology, 54,* 229–252.

Ochoa, C., Sumalla, E.C., Maté, J., Castejón, V., Rodriguez, A., Blanco, I., and Gil, F. (2010). Psicoterapia positiva grupal. Hacia una atención psicosocial integral del superviviente de cáncer. *Psicooncologia, 7,* 7-34.

Páez, D., Basabe, N., Ubillos, S., and González, J. L. (2007). Social sharing, participation in demonstrations, emotional climate, and coping with collective violence alter the March 11th Madrid bombings. *Journal of Social Issues, 63*, 207-323.

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin, 136,* 257–301

Park, C.L. (2009). Overview in theoretical perspectives In C. Park, S. Lechner, A. L. Stanton, and M. H. Antoni (Eds.), *Medical illness and positive life change: Can crisis lead to personal transformation?* (pp. 11-30). Washington , DC : American Psychological Association

Park, C.L., Cohen, L., and Murch, R. (1996). Assessment and prediction of stress-related growth. *Journal of Personality, 64,* 71-105.

Pérez-Sales P. (2008). Psicoterapia positiva en situaciones adversas. In C. Vázquez and G. Hervás (Eds.), *Psicología Positiva Aplicada* (155-190). Bilbao: Desclée De Brouwer.

Pérez-Sales, P. (2006). *Trauma, culpa y duelo: Hacia una psicoterapia integradora.* Bilbao: Desclee de Brower.

Perez-Sales, P., Bacic, R., and Durán-Perez, Teresa. (1999). *Muerte y desaparición forzada en la Araucania: Una aproximación étnica*. Santiago de Chile: Ediciones LOM.

Pérez-Sales, P., Eiroa-Orosa, F. J., Olivos, P., Barbero-Val, E., Fernández-Liria, A., and Vergara, M. (2012). Vivo Questionnaire: A measure of human worldviews and identity in trauma, crisis, and loss—validation and preliminary findings. *Journal of Loss and Trauma*, *17*, 236-259.

Prati, G., and Pietrantoni, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma, 14,* 364-388.

Punamäki, R. (2010). Posttraumatic growth in Middle Eastern context: Expression and determinants among Palestinians. In T. Weiss and Berger, R. (eds.), Posttraumatic growth and culturally competent practice: Lessons learned from around the globe (pp.). New York: Wiley.

Rubel, A. J., O'Nell, C. W., and Collado, R. (1984). *Susto. A folk illness.* Berkeley: University of California Press.

Sawyer A, Ayers S and Field A.P. (2010) Posttraumatic growth and adjustment among individuals with cancer and HIV/AIDS: A meta-analysis. *Clinical Psychology Review, 30,* 436-447.

Scott, J.C. (1992). *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven, CT: Yale University Press, 1990

Serrano, J.P., Latorre, J.M., Gatz, M., and Montanes, J. (2004). Life review therapy using autobiographical retrieval practice for older adults with depressive symptomatology. *Psychology and Aging, 19*, 272-277.

Scheper-Hughes, N. (1993). *Death without weeping: The violence of everyday life in Brazil.* Berkeley: University of California Press.

Simmons, R., and Hughes, C. (1985). (Eds.). *The culture-bound syndromes. Folk illnesses of psychiatric and anthropological interest.* Boston: Reidel.

Splevins, K., Cohen, K., Bowley, J., and Joseph, S. (2010). Theories of posttraumatic growth: cross-cultural perspectives. *Journal of Loss and Trauma*, *15*, 259-277.

Stanton, A.L., Bower, J.E., and Low, C.A. (2006). Posttraumatic growth after cancer. In: *Handbook of posttraumatic growth: Research and practice,* L. G. Calhoun and R.G. Tedeschi (pp. 138-175). NJ, Mahwah: Lawrence Erlbaum Associates,

Stockton, H., Hunt, N., and Joseph, S. (2011). Cognitive processing, rumination, and posttraumatic growth. *Journal of Traumatic Stress*, *24,* 85-92.

Sumalla, E. C., Ochoa, C., and Blanco, I. (2009). Posttraumatic growth in cancer: reality or illusion? *Clinical Psychology Review, 29*, 24-33.

Tedeschi, R.G., and Calhoun, L.G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, *9,* 455-471.

Tedeschi, R.G. and Kilmer, R.P. (2005). Assessing strengths, resilience, and growth to guide clinical interventions. *Professional Psychology: Research and Practice, 36,* 230-237.

Tedeschi, R.G., and McNally, R.J. (2011). Can we facilitate posttraumatic growth in combat veterans? *American Psychologist, 66,* 19-24.

Tennen, H., and Affleck, G. (2002). Benefit-finding and benefit-reminding. In C. R. Snyder and S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 584-597). New York: Oxford University Press.

Tennen, H., and Affleck, G. (2009). Assessing positive life change: in search of meticulous methods. In C. Park, S. Lechner, A. L. Stanton, M. H. Antoni (Eds.), *Medical illness and positive life change: Can crisis lead to personal transformation?* (pp. 31-49). Washington, DC : American Psychological Association

Van Loey, N.E., van Son, M.J., van der Heijden, P.G., and Ellis, I.M. (2008). PTSD in persons with burns: an explorative study examining relationships with attributed responsibility, negative and positive emotional states. *Burns, 34,* 1082-1089.

Vázquez, C., (2005). Stress reactions of the general population after the terrorist attacks of S11 (USA) and M11 (Madrid, Spain): Myths and realities. *Annuary of Clinical and Health Psychology,* 1, 9-25.

Vázquez, C., Cervellón, P., Pérez Sales, P., Vidales, D. y Gaborit, M. (2005). Positive emotions in earthquake survivors in El Salvador (2001). *Journal of Anxiety Disorders, 19,* 313-328.

Vázquez, C., Pérez-Sales, P., and Hervás, G. (2008). Positive effects of terrorism and Vázquez, C. y Hervás, G. (2010). Terrorist attacks and benefit finding: The role of positive and negative emotions. *Journal of Positive Psychology, 5,* 154-163.

Vázquez, C. y Páez, D. (2010). Posttraumatic growth in Spain. In T. Weiss and Berger, R. (eds.), *Posttraumatic Growth and Culturally Competent Practice: Lessons Learned from Around the Globe* (pp. 97-112). New York: Wiley.

posttraumatic growth: an individual and community perspective. In S. Joseph and A. Linley (Eds.), *Trauma, recovery, and growth: Positive psychological perspectives on posttraumatic stress* (pp. 63-91). New York: Lawrence Erlbaum Associates.

Walter, M., and Bates, G. (2012). Posttraumatic growth and recovery from post traumatic stress disorder. In V. Olisah (Ed.), *Essential notes in psychiatry.* DOI: 10.5772/38296.

Weiss, T. (2004a). Correlates of posttraumatic growth in husbands of breast cancer survivors. *Psycho-Oncology, 12,* 260−268.

Weiss, T. (2004b). Correlates of posttraumatic growth in married breast cancer survivors. Journal of Social and Clinical Psychology, 23, 733−746.

Weiss, T., and Berger, R. (2010). (Eds.). *Posttraumatic growth and culturally competent practice: Lessons learned from around the globe.* New York: Wiley.

Wirtz, D., Kruger, J., Scollon, C. N., and Diener, E. (2003). What to do on spring break? The role of predicted, online, and remembered experience in future choice. *Psychological Science, 14,* 520-524.

Wong, P. T. P., and Wong, L. C. J. (2006). *Handbook of multicultural perspectives on stress and coping*. New York: Springer.

Zoellner, T., and Maercker, A. (2006). Posttraumatic growth in clinical psychology: A critical review and introduction of a two component model. *Clinical Psychology Review, 26,* 626–653.

Table 1

Demographic, Psychological, and Contextual Factors Associated With Facilitation or Inhibition of PTG

Factor	**Relation to PTG**
Age	Younger people show greater probability of growth (Helgelson, Reynolds, & Tomich, 2006).
Sex	There is greater probability of PTG in women (Helgelson et al., 2006).
Time	There is greater probability of PTG if more time has passed since the trauma (Helgelson et al., 2006).
Severity of the event	-There is a low correlation between severity of trauma and PTG (Hegelson et al., 2006; Butler et al., 2009). -There is greater probability of PTG for intermediate severity of trauma than for very low or very high severity levels (Levine, Laufer, Hamama-Raz, Stein, & Solomon, 2008; Lechner, Carver, Antoni, Weaver, & Phillips, 2006; Kliem & Ehlers, 2009).
Type of event	-Some types of highly destructive experiences (e.g., torture) possibly make PTG difficult (Punamäki, 2010). -Threats of impending mortality are more likely to lead to positive changes (Stanton et al., 2006).
Community network	Maintaining the community structure favors PTG even in postwar scenarios (Arënliu & Landsman, 2010).
Social support	Social support is positively associated with PTG (Prati & Pietrantoni, 2009; Vázquez & Paez, 2010).
Emotions	-Positive emotions in the aftermath of trauma are associated with greater personal growth (Fredrickson, Tugade, Waugh, & Larkin, 2003; Vázquez &

	Hervás, 2010). -There is a low correlation between perception of benefits and negative emotions (Vázquez & Hervás, 2010).
Coping (individual and community)	-Active coping strategies are linked to PTG (Prati & Pietrantoni, 2009). -Participation in social rituals such as public demonstrations, political protests (Páez, Basabe, Ubillos, & González, 2007), or religious activities (Vázquez, Cervellón, Pérez-Sales, Vidales, & Gaborit, 2005) may promote PTG.
Appraisal	-Positive reevaluation of the occurrence is linked to PTG (Helgelson et al., 2006; Prati & Pietrantoni, 2009).
Cognitive factors	-Rumination or brooding is associated with PTSD, whereas reflection (a ruminative style associated with deliberate attempts to make constructive meaning of an event's consequences) is associated with PTG (Stockton, Hunt, & Joseph, 2011). -Causal attributions (blaming others or oneself) may inhibit PTG processes (Van Loey, Van Son, Van der Heijden, & Ellis, 2008).
Religiousness	Religiousness is positively associated with PTG (Helgelson et al. 2006; Prati & Pietrantoni, 2009).
Optimism	A positive view of the world and the future increases the probability of PTG (Helgelson et al. 2006; Prati & Pietrantoni, 2009).
Sense of control	A sense of responsibility may promote changes to reestablish a sense of control (Park, 2009).

Note. PTG = posttraumatic growth; PTSD = posttraumatic stress disorder.

Table 2

Strategies and Techniques to Promote PTG in Clinical Settings

Objective of the intervention	**Strategies and techniques to facilitate PTG**	**Examples of cue questions**
To generate a good attitude for change	1. Curiosity as a life attitude 2. Realistic acceptance 3. Control and flexibility 4. Promotion of optimism	-Sometimes, investigating the effects difficult events have on people helps with recovery…what is your opinion on this? -What elements of the event would help you with acceptance without overthinking the event? -What helps you maintain a certain sense of control, though minimal? Have you considered that there may be other forms of taking or facing what you have lived through? -If you could hope for an improvement in the future, what would be the most probable?
To work with strengths	1. Awareness 2. Learning of and search for exceptions	-In spite of not being able to keep a job, it is also true that in just a few days you can get another. Could this *perseverance* be helpful with the rest of the problems you have? -In this entire horrific week, has there been any day that you have surprised yourself doing something that has been impossible for you on the other days? What do you think was different on that occasion? -If I could have a camera follow you around for 24 hours but would only record moments when you are doing relatively well, what would you be doing? Would you be with someone?

To recall memories of success	Finding successful learning opportunities in other problematic situations	-Focusing on the discomfort you are experiencing, have you felt like this in the past? How did you overcome it? What was helpful then? Would some of that be useful to you now?
To visualize a better future	Questioning on miracles	-If a miracle occurred and solved your difficulty in handling what happened, how would we know that you are better? And the people around you? Whom and what would they notice?
To give meaning to the experience	1. Personal guidelines for fulfillment 2. Positive autobiographical memories	(See in text)
To promote relational growth	1. Arousal of interest in others 2. Positive models in adversity 3. Gratitude and forgiveness	-How do you think this has had an impact on others (family and other affected people)? What difficulties do they have to handle? What do they see in you that helps them recover? -Is there someone who has served as an example of how to overcome this or other difficult situations? What do you admire in that person? And if you could make that virtue yours, how would it help you? -Before and after going through something like this, there are often things in life to be grateful for. In your case, what would they be? Have you expressed gratitude? What effect has it had?

Note. PTG = Posttraumatic growth.