

Chapter 2

Contemporary Understandings of Posttraumatic Growth

The idea that adversity is a necessary condition for the development of one's full self is a pervasive idea in American culture (McAdams 1996; see also Blee 2010 for an interesting historical perspective). However, almost all major philosophical and religious traditions have argued that experiencing some adversity is an important catalyst for the full development of one's character (Ryff and Singer 2003). To take one example, Christian perspectives on the value of adversity are characterized by an emphasis on the many possible benefits afforded to character development following adversity. The Christian Scriptures are replete with multiple assertions about the benefits of adversity. One interesting feature of these professed upsides stemming from adversity that is they all arguably assume the ubiquitous nature of adversity in everyday life as a test provided by an ultimately benevolent God.

One of the main themes in the Christian Scriptures that links adversity to optimal human development is that it precludes and short-circuits the development of certain traits that are seen as unwholesome or indicative of bad character. For example, the experience of adversity can be humbling and offer a reminder of the dangers of developing specific vices. In other words, **adversity humbles people, and reins in an otherwise rampant ego.**

For whom the Lord loveth he chasteneth, and scourgeth every son whom he receiveth. **If ye endure chastening, God dealeth with you as with sons;** for what son is he whom the father chasteneth not? But if ye be without chastisement, whereof all are partakers, then are ye bastards, and not sons. Furthermore we have had fathers of our flesh which corrected us, and we gave them reverence: shall we not much rather be in subjection unto the Father of spirits, and live? For they verily for a few days chastened us after their own pleasure; but he for our profit, that we might be partakers of his holiness. Now no chastening for the present seemeth to be joyous, but grievous: nevertheless afterward it yieldeth the peaceable fruit of righteousness unto them which are exercised thereby. Wherefore lift up the hands which hang down, and the feeble knees; and make straight paths for your feet, lest that which is lame be turned out of the way; but let it rather be healed (Hebrews 12:6–13).

Another important theme in the Scripture is that enduring adversity is good when undertaken for noble end—for example, fulfilling God's mission. In other words, **experiencing adversity is good when done in service of the good.**

Lest I should be exalted above measure through the abundance of the revelations, there was given to me a thorn in the flesh, the messenger of Satan to buffet me, lest I should be exalted above measure. For this thing I besought the Lord thrice, that it might depart from me. And he said unto me, My grace is sufficient for thee: for my strength is made perfect in weakness. Most gladly therefore will I rather glory in my infirmities, that the power of Christ may rest upon me. Therefore **I take pleasure in infirmities, in reproaches, in necessities, in persecutions, in distresses for Christ's sake**: for when I am weak, then am I strong (II Corinthians 12:7–10).

Yet another perspective present in the Scripture is the view that experiencing adversity can lead to the development of character strengths that may justify the pain that accompanies adversity. That is, **experiencing adversity promotes character**:

We are troubled on every side, yet not distressed; we are perplexed, but not in despair; persecuted, but not forsaken; cast down, but not destroyed; always bearing about in the body the dying of the Lord Jesus, that the life also of Jesus might be made manifest in our body.... So then death worketh in us, but life in you.... For which cause we faint not; but though our outward man perish, yet the inward man is renewed day by day" (II Corinthians 4:8, 10, 12, 16).

While a more detailed discussion of how Christianity and other faiths discuss the value of adversity is beyond the scope of this book (and our expertise), it is worth noting that one possible explanation for the presence of discussions of the values of adversity in religious and theological literatures across traditions may be the ubiquity of adversity in human life, which was especially the case until the mid-twentieth century in the industrialized world.

Psychological Perspectives on Posttraumatic Growth

Research exploring the possibility for personal growth following the struggle with adversity has increased in clinical and positive psychology since the mid 1990s. There is considerable evidence demonstrating that people often report some quite profound and positive changes as a result of their struggle with highly stressful and challenging circumstances (Helgeson et al. 2006; Linley and Joseph 2004). This phenomenon has been referred to by many names including *benefit finding* (Tomich and Helgeson 2004), *stress-related growth* (Park et al. 1996), and even *positive illusions* (Taylor and Armor 1996), but it is most commonly referred to in the literature as posttraumatic growth (Tedeschi and Calhoun 1995, 1996, 2004). Posttraumatic growth is explicitly a theory of personality change—it proposes that the struggle with adversity can result in genuine and meaningful changes to the individual's identity and outlook on life. For example, Tedeschi and Calhoun (2004) have claimed that the positive life changes they have observed in their research "...appear to be veridical transformative life changes that go beyond illusion" (p. 4).

The positive psychological changes that may result from the struggle to come to terms with adverse and stressful circumstances are quite varied. As noted earlier, Tedeschi and Calhoun's (2004) model posits five domains of posttraumatic growth that were developed from a review of the relevant literature and clinical interviews conducted with individuals who had experienced significant life crises including spousal loss and physical disability. On the basis of these domains—appreciation of life, personal strength, spirituality, new possibilities, and positive relationships—Tedeschi and Calhoun (1996) developed the Posttraumatic Growth Inventory to measure individuals' accounts of positive change in the aftermath of adversity.

Other theorists, however, have posited alternate outcomes. Joseph and Linley's (2005) model, for example, conceptualizes posttraumatic growth as akin to increases in psychological well-being—including self-acceptance, autonomy, purpose in life, relationships, sense of mastery, and personal growth (Joseph et al. 2012; Ryff and Singer 1996). This model makes a clear distinction between subjective and psychological well-being. Subjective well-being refers to an individual's general affective states and global satisfaction with life (Jayawickreme et al. 2012). Psychological well-being accounts (Ryff 1989) adopts a more theory-guided approach to well-being than subjective well-being, and argue that subjective well-being focuses solely on felt emotion and life satisfaction, neglecting important aspects of positive psychological functioning (Ryff 1989). Joseph and Linley assert that it is highly possible that adversity may leave an individual sadder, yet with an enhanced appreciation of what is important to them and a commitment to live in accordance with these values. Others have noted increases in empathy and prosocial behavior (Frazier et al. 2013; see also the discussion of *altruism born of suffering* in Staub and Vollhardt 2008).

Others have conceptualized posttraumatic growth more broadly, as a process of finding meaning and learning lessons in the aftermath of adverse and stressful life circumstances (Park 2010; Wong et al. 2006). Park's (2010) model construes posttraumatic growth as having derived a sense of meaning from the event. She defines the ways that people can derive meaning very broadly, often encompassing many of the outcomes described in earlier models. For example, an individual is said to have derived meaning when he/she reports having a sense of acceptance, understands the cause of the event, perceives positive life changes as a result of the event, and reevaluates their beliefs or goals in light of their experiences. Furthermore, many theories of posttraumatic growth claim that adversity may eventually lead to the reconstruction of an individual's life narrative, greater resilience to future stressors and development of a general sense of wisdom about the world (Joseph and Linley 2005; Tedeschi and Calhoun 2004).

However, Pals and McAdams (2004) claim that the development of a revised life narrative is not just another outcome of posttraumatic growth, but provides the framework for all the subsequent life changes. From this perspective, posttraumatic growth is a process that an individual engages into reconstruct their life story based on an understanding of how they have changed. The narrative approach certainly has the capacity to capture a broader array of changes that are unique to an individual, which may not be neatly represented within the five domains outlined in

Tedeschi and Calhoun's (2004) model. Indeed, as McMillen (2004) asserts, Tedeschi and Calhoun's model "accounts for the fact that the trees in the forest change color following adversity, but it does not account for the different colors the trees turn" (p. 50). It is important that researchers measure these within-person differences when trying to determine how people have changed over time following adversity. Methods examining ipsative change, which focus on within-person development of personality traits over time within the individual (Lönnqvist et al. 2008) could be helpful in increasing our understanding of these differences.

Although reports of posttraumatic growth are very common, and occur after a very diverse range of adverse life events (e.g., health-related vs. personal stressor; Helgeson et al. 2006), each model outlines specific psychological processes that may make such reports more likely to occur. One notion that is central to many theoretical accounts of posttraumatic growth is that the experience of adversity is not sufficient in and of itself to facilitate growth (Park 2010; Joseph and Linley 2005; Tedeschi and Calhoun 2004). Based on the work of scholars such as Janoff-Bulman (1992) and Parkes (1971), these theories assume that individuals rely on general set of assumptions about the world that help them interpret and make sense of the social world. An experience of adversity is thought to challenge (or "shatter") an individual's beliefs about the benevolence, justice, and controllability of the world, and it is the process of coming to terms with this new reality and rebuilding one's schemas that facilitates posttraumatic growth. The individual must disengage from prior beliefs and assumptions and formulate new beliefs, goals, and identities that incorporate the adversity they experienced (Park 2010). If an individual does not undergo this process, but rather assimilates the experience into their prior beliefs about the world (e.g., bad things just happen), then posttraumatic growth is not expected to occur. Additionally, posttraumatic growth is also not expected to occur if an individual accommodates this new information in a negative way (e.g., bad things happen and there is nothing that can be done to prevent them). These individuals are vulnerable to greater feelings of hopelessness and to experience symptoms of posttraumatic stress disorder (PTSD; Joseph and Linley 2005). Two related processes—cognitive processing of the event and meaning-making—are proposed to aid the disengagement from these shattered assumptions and eventually lead to posttraumatic growth. The cognitive processing of the event is accompanied by high levels of distress, at least initially, and characterized by intrusive thoughts, memories, and counterfactual thinking about how the incident could have been avoided. However, when an individual moves past intrusive cognitive processing into more deliberative (or meaning-making) cognitive processing they may find themselves in a position to experience some of the positive life changes outlined earlier (Tedeschi and Calhoun 2004).

It is important to note that reports of posttraumatic growth do not imply that the event was not profoundly distressing, or that an individual is no longer managing distressing emotions associated with the event. Indeed, the process of coming to terms with one's new reality and disengaging from prior beliefs and goals is by definition distressing. Thus, social support and the conditions of social environment have a particularly important role in facilitating posttraumatic growth. Tedeschi and

Calhoun's model (2004) emphasizes the value of self-disclosure to others in supportive social environments. They argue that the empathy, acceptance, and perspectives offered by other people help a survivor reconstruct their narrative and confront questions of meaning in light of what happened. This is especially beneficial in mutual support groups, as the individual may feel more willing to disclose the emotional aspects of the event (Calhoun et al. 2010). Joseph and Linley (2005) further emphasize the importance of conditions of the social environment in facilitating posttraumatic growth. Based on a humanistic perspective, they claim that a supportive social environment that satisfies an individual's need for autonomy, competence, and relatedness will aid cognitive processing of the event, which in turn facilitates posttraumatic growth (Ryan and Deci 2000).

Finally, there have been some attempts in the literature to outline the personality characteristics that may facilitate the posttraumatic growth process (e.g., Park 1998; Tedeschi and Calhoun 1995). However, these attempts are unfortunately fairly scarce, and empirical work is even more limited. Tedeschi and Calhoun (2004) point to some early correlational research that suggests that extraversion, openness to experience, and optimism may play a role in promoting posttraumatic growth (Tedeschi and Calhoun 1996). They suggest that individuals who are higher in these traits may be better able to harness positive emotion and disengage from unsolvable problems, which aids the cognitive restructuring process necessary for posttraumatic growth. Additionally, Tennen and Affleck (1998) propose that it is certainly plausible that individuals will experience growth in areas that match their pre-adversity disposition. For example, extraverted individuals who are normally cheerful and socially interactive might be more likely to perceive positive changes in their social relationships, whereas those open to new experiences may be more likely to find themselves reconsidering their life philosophies and goals. Theorists have also posited that individuals who are high in cognitive complexity, self-efficacy, and dispositional hope may be especially likely to perceive growth following adversity (Tennen and Affleck 1998; Tedeschi and Calhoun 1995). These accounts suggest that individuals who are fairly well adjusted prior to an experience of adversity are more likely to perceive positive life changes. However, prospective longitudinal research is needed to fully test directional hypotheses and disentangle the moderating role of personality on post-adversity functioning.

Before moving onto a discussion of the empirical findings in the posttraumatic growth literature, it is worth pausing to consider the broader implications of these theories. Calhoun et al. (2010) propose that posttraumatic growth leads to the development of a more complex life narrative and sense of wisdom about the world, which in turn may lead to greater satisfaction with life and well-being. Joseph and Linley's model (2005), as we have already discussed, even equates posttraumatic growth with increases in psychological well-being. Thus, posttraumatic growth is considered to be an important outcome, because of the clinical implications it has for understanding adjustment following adversity (Park 1998, 2004). It is therefore of critical importance that research examines the link between perceptions of growth and adjustment over time.

The posttraumatic growth process has been likened to the physical rebuilding that takes place after an earthquake—an adverse life event severely challenges an individual's assumptive world, and provides an opportunity to rebuild cognitive schemas that can withstand future shocks (Tedeschi and Calhoun 2004). Finally, most of the theories we have discussed, especially Tedeschi and Calhoun's (2004) model, assume that growth only occurs from the struggle with highly adverse and traumatic circumstances. However, it should be noted that similar outcomes have been observed among people with long-term health conditions (Tennen et al. 1992).

Evidence for Posttraumatic Growth

There have been two rather distinct lines of empirical inquiry into posttraumatic growth—research that considers posttraumatic growth as a valuable outcome in and of itself, and research that deems growth as meaningful in so far as it predicts important outcomes of adjustment (Park 2004). This first line of inquiry mostly characterized initial work into the topic, and was predominantly focused on demonstrating the existence of the phenomenon. As a result, there is considerable evidence that demonstrates that individuals tend to report experiencing at least one positive life change after a traumatic or stressful life event (see Sawyer et al. 2010; Helgeson et al. 2006, Stanton et al. 2006). These events include, but are not limited to life-threatening illnesses, bereavement, transportation accidents, sexual assault, and military combat (Linley and Joseph 2004).

Given the potential clinical significance of this work, researchers quickly began investigating whether posttraumatic growth was related to improved psychological and physical health. A comparison of individual studies reveals mixed and inconsistent evidence—with positive, negative, and null results all reported. However, a comprehensive meta-analysis conducted by Helgeson et al. (2006) of these correlational studies revealed that posttraumatic growth was associated with lower levels of depression, greater well-being, and greater intrusive thoughts about the event (which is considered to be marker of cognitive processing and a precursor for deliberative rumination and PTSD). Tedeschi and Calhoun (2004) argue that intrusive rumination is one stage along the path to greater posttraumatic growth, as this rumination becomes more deliberative in nature.

The types of positive changes that people report are to some extent constrained by the method employed by the researcher. There are a number of different scales that measure the amount of growth the individual believes s/he has experienced after the event has occurred (perceived growth), and some researchers have employed qualitative interviews to gain a deeper understanding of the concept (Hefferon et al. 2009). Most of these measures conceptualize growth-related outcomes as closer and more intimate interpersonal relationships, greater feelings of self-efficacy, enhanced compassion for others, increased spirituality, and lifestyle changes that involve appreciating the smaller things in life, refocusing priorities, and identifying new paths for one's future.

There has also been research examining the extent to which the psychosocial processes proposed by the various posttraumatic accounts actually facilitate reports of posttraumatic growth. Systematic reviews of the published literature have shown that greater perceived levels of threat and harm related to the event facilitate growth (Linley and Joseph 2004). The precise reasons for this relationship remain unclear, but presumably it is because events that challenge an individual's beliefs more severely encourage an individual to engage in more deliberative and meaning-making processes. It has also been demonstrated that individuals who engage in more adaptive coping strategies—problem-focused coping, positive reappraisals, and positive religious coping report higher levels of posttraumatic growth (Shaw et al. 2005; Linley and Joseph 2004).

Personality characteristics have also been shown to be a factor that increases the likelihood that an individual will report posttraumatic growth. As we noted earlier, the traits of optimism, extraversion, and openness to experience have been identified as significant predictors of posttraumatic growth. However, with the exception of the trait of optimism, the findings for the other traits are based only on a few select studies (Bostock et al. 2009; Prati and Pietrantonio 2009; Linley and Joseph 2004). Longitudinal research has supported the hypothesis that greater cognitive processing of the event in the form of deliberative rumination, greater challenge to the survivor's core beliefs, active coping styles, and emotional social support are important predictors of posttraumatic growth over time, but currently there are a few longitudinal studies examining the moderating role of personality characteristics (Danhauer et al. 2013; Schroevers et al. 2010; Salsman et al. 2009; Pollard and Kennedy 2007).

Most studies examining posttraumatic growth use cross-sectional data and with very few exceptions do not have no-trauma matched control participants (Andrykowski et al. 2002; Cordova et al. 2001), therefore it is difficult to causally infer with confidence that the distressing life event is solely responsible for the positive changes people perceive. Indeed, the lack of longitudinal work actually leaves many alternative explanations plausible and many issues unresolved. That said, in spite of the challenges associated with longitudinal work in this literature, researchers have started to tackle the question of long-term stability of posttraumatic growth, and the implications of these findings. For example, Danhauer et al. (2013) found that self-reported posttraumatic growth increased over a period of 9–13 weeks among a sample of adult Leukemia patients who were hospitalized for chemotherapy treatment. Additionally, in this sample, self-reported distress was found to decrease over time. Similarly, Dekel et al. (2012) observed temporal stability in posttraumatic stress and posttraumatic growth over 5 years in a sample of Israeli veterans. In partial support of Tedeschi and Calhoun's (2004) "shattered assumptions" model, the veterans with posttraumatic stress disorder reported experiencing higher levels of posttraumatic growth across time, compared to those who did not experience posttraumatic stress disorder. Finally, Frazier et al. (2001) observed comparable results among a sample of rape survivors, but they also found significant individual variability that was masked in the sample averages. Specifically, participants who reported a decline in posttraumatic growth across

time reported similar levels of psychological distress as those who had never reported any positive changes. These findings demonstrate that while there might be some stability to the construct, researchers also need to be more aware of differences in individual stability (especially before any clinical intervention can be developed). For example, as noted earlier, individual differences in maturity could predict how individuals respond to an adverse life event, since prior adversity may have already increased trait levels of mastery and hardiness (Seery et al. 2010), leading to less subsequent personality change (Roberts et al. 2001).

Although longitudinal research into this topic is gradually increasing, there are still many studies that do not obtain baseline measures of posttraumatic growth, but rather measure it as an outcome variable at later time points (Ai et al. 2013; Pollard and Kennedy 2007). Prospective longitudinal research designs involve measuring the outcomes associated with posttraumatic growth both before and after adversity has occurred, and is the only way we can examine the actual impact of adversity on individuals' lives (Tennen and Affleck 2009). Given the logistical challenges associated with this design, it is unsurprising that there are very few published articles that utilize this method. Frazier et al. (2009) have conducted the most rigorous investigation of the actual impact of adversity to date utilizing a prospective longitudinal design with undergraduate students. In this study Frazier et al. (2009) found that the participants' retrospective reports of posttraumatic growth were not significantly associated with actual change in growth-related outcomes (current standing measures of the five domains associated with posttraumatic growth) across the academic year. Additionally, they also observed differential relationships between perceived growth and actual growth with regards to coping and distress. Perceived growth was positively associated with greater distress over time and a positive reappraisal style of coping, whereas actual growth was related to decreased distress over time and unrelated to coping styles. This article makes two very important points: (1) the scales that ask individuals to retrospectively report change may not accurately identify those who have actually grown, and (2) perceived growth (distinct from actual growth) may serve a different psychological function, namely enabling people to try and cope with what they have experienced.

While there are a few other prospective studies on posttraumatic growth, these studies have focused solely on perceived growth and are only semi-prospective in that the participants in the study by Moore et al. (2011) had already received an abnormal biopsy result, and those in the study by Sawyer, Ayers, Young, Bradley, & Smith (2012) were pregnant when enrolled in the study. Moore et al. (2011) however, did find high levels of agreement between the posttraumatic growth reports of both patients with advanced stage cancer and their caregivers. In other words, the caregivers corroborated the levels of growth reported by the cancer patients. This indicates that these individuals who are close to the patient were able to corroborate their beliefs of change. It does not, however, verify that these beliefs of change have necessarily translated into observable (or actual) behavioral change, because it is feasible that close caregivers could be subject to the same biases as survivors (we discuss these issues in greater detail in Chap. 3). It is however

possible that posttraumatic growth may be more reflective of a qualitative change in outlook on life, such as increases in meaning and purpose and life, and such changes may not be always identifiable by others (e.g., Pals and McAdams 2004). As we will discuss in the next chapter, however, the totality of the evidence suggests that we do not have the empirical evidence yet to make any conclusive judgments about the nature and ubiquity of posttraumatic growth.

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