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# Exploring the Psychological Benefits of Hardship

## A Critical Reassessment of Posttraumatic Growth

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## A Critical Reassessment of Posttraumatic Growth

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# Contents

# Author's Note

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# Chapter 1
# Introduction: What Are the True Benefits of Adversity?

One of the first author's favorite television shows of recent times has been the Netflix comedy *Unbreakable Kimmy Schmidt*. Part of the reason why he enjoyed the show so much is that it tells the story of an irrepressible young woman, played by Elle Kemper, who survived a 15-year imprisonment by a cult and begins a new life in New York with resilience and optimism. One scene in the first series has stayed with him since he first binge-watched the series. In the third episode, the title character asks a senile World War II veteran: "Do you think going through something like that, a war or whatever, makes you a better person, or deep down does it just make you bitter and angry?"

This book is in part a considered response to that question. Is ill-being the only outcome we can expect following tragedy and trauma? Can enduring significant failure and adversity in fact change your character in truly meaningful ways? Many people's intuition on the question suggests that perhaps yes, our character could be strengthened. This intuition was shared by St. Paul, who wrote that "suffering produces endurance, and endurance produces character, and character produces hope" (Romans 5: 3–5). Moreover, "That which doesn't kill me makes me stronger" is ubiquitous enough a meme that you could attribute it to Kanye West, Kelly Clarkson or (originally) the German philosopher Friedrich Nietzsche. In addition, we admire people who are seen to have triumphed over adversity in achieving laudable moral goals. For example, icons such as Nelson Mandela, Mahatma Gandhi, and Martin Luther King are known as much for their life struggles as they are for their heroism.

As it turns out, this phenomenon has a name in the psychological literature. While others have explored the idea of gaining strength through adversity beforehand, the psychologists Richard Tedeschi and Calhoun (1996) coined the term *posttraumatic growth* to capture the positive psychological changes they had witnessed as clinical psychologists among their patients who were coming to terms with traumatic life events. They found that people often reported experiencing positive changes since these events occurred; for example, people reported feeling better connected to the people around them and taking more pleasure in the small things in life (Tedeschi and Calhoun 2004).



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Many researchers agree that the positive transformations in beliefs and behavior can be manifested in at least five forms: improved relations with others, identification of new possibilities for one's life, increased perception of personal strength, spiritual growth, and enhanced appreciation of life (Tedeschi and Calhoun 1996). Since Tedeschi and Calhoun's (1996) initial work that led to the development of a scale measuring posttraumatic growth, there has been a marked interest in the study of the construct and its presumed associated mental and physical health benefits (Jayawickreme and Blackie 2014). Current research indicates that posttraumatic growth is widely reported. In fact, longitudinal research indicates that the phenomenon is fairly common, with 58–83 % of survivors reporting positive change in at least some domains of their lives (Sears et al. 2003; McMillen et al. 1997; Affeck et al. 1987, 1991). Theories of posttraumatic growth view the experienced trauma as the catalyst for fostering lasting personal growth. For example, Tedeschi and Calhoun (2004) note: "The individual has not only survived, but has experienced changes that are viewed as important, and that go beyond what was the previous status quo. Posttraumatic growth is not simply a return to baseline-it is an experience of improvement that for some persons is deeply profound" (p. 4). Similarly, Joseph and Linley's (2008) organismic valuing theory posits that trauma can cause positive changes in "issues of meaning, personality schemas, and relationships" (p. 33).

It may be clear from the above that there is a large and growing research tradition focusing on posttraumatic growth. Hundreds and hundreds of academic papers (more than one hundred in the 18 months between June 2014 and January 2016, as assessed on the search engine PsycInfo with the term "posttraumatic growth") have examined the construct of posttraumatic growth. There have also been popular books that have focused on "the new science of posttraumatic growth" (Rendon 2015) that argue that people's intuitions about growth are actually supported by science. However, our goal in writing this short book is in fact to convince those of you seriously interested in the topic of posttraumatic growth that the question of whether adversity can lead to enduring positive change across the lifespan has not been addressed conclusively, even if you perceive vivid examples of posttraumatic growth in your own and other people's lives.

How is posttraumatic growth typically defined and understood? Chapter 1 addresses this question. People readily report experiencing it following traumatic life events (Linley and Joseph 2004), at least when asked to think about it directly. For example, as we mentioned earlier, research has demonstrated that self-reports of posttraumatic growth are fairly common—ranging from 58 to 83 % among survivors of a range of different traumas (Sears et al. 2003; McMillen et al. 1997; Affleck et al. 1987, 1991). This is not trivial—if people believe they have changed, this phenomenon is then worthy of greater study for that reason alone. We should at the very least be exploring whether their beliefs are grounded in reality, and who these people that express these beliefs are in the first place. Although only limited work to date has shown that *some* people have truly experienced benefits as a result of their experiences (Frazier et al. 2009; Seery et al. 2010; Yanez et al. 2011) it has

demonstrated that the *belief* that one has experienced positive personality change is fairly common.

Chapter 2 focused on what we know about the phenomenon and makes the case for a "reset" in posttraumatic growth research. Specifically, while theories of posttraumatic growth stipulate that people experience meaningful changes in their characteristic patterns of thoughts, feelings, and behaviors (Tedeschi and Calhoun 2004)—that is, changes in people's personality—much of the evidence on this topic has been based on cross-sectional studies utilizing retrospective measures of self-reported growth, which do not allow for tests of meaningful hypotheses on the nature and predictors of growth, as we will argue. Concerns about the validity of this research program have been raised in prior reviews (e.g. Jayawickreme and Blackie 2014; Tennen and Affleck 2002), yet little has changed in how the construct has been studied. Indeed, this lack of attention to methodological limitations and over-interpretation of extant findings in current research on posttraumatic growth has led some researchers to question the scientific validity of the construct. In a recent debate on the value of interventions promoting positive psychological outcomes such as posttraumatic growth for individuals suffering from cancer, Coyne and Tennen (2010, p. 24) noted:

> We want to be clear that we are not asserting that people cannot grow from confronting life's slings and arrows, including serious illness and other health challenges…. What positive psychology potentially has to offer the concept of posttraumatic growth is scientific scrutiny through careful measurement, sensitive study designs, an attitude that propels investigators to seek facts that will disconfirm positive psychology's elegant hypotheses, and careful attention to credible evidence.

While this stringent critique of positive psychology arguably obscures the role that the field has played in bringing to prominence the scientific study of posttraumatic growth (Seligman 2012), we believe their core point—that research on the topic has been hampered by significant theoretical and measurement limitations—is valid. Given the current state of the research literature, the goal of this monograph is to present a critical assessment of posttraumatic growth conceptualized as positive personality change, guided by the assumption that significant limitations in how the construct has been conceptualized and assessed in the past necessitate a "starting over" (Tennen 2013). This may be the case since we cannot be certain what the construct actually is at this point. Moreover, current theories may in fact conflate the *process* of identifying positive changes with *outcomes* that may result from identifying changes (Tennen and Affleck 2002).

Chapter 3 builds on this assumption by asserting the core argument that to understand our intuition of posttraumatic growth as personality change (which is surely what Nietzsche's adage "what does not kill me makes me stronger" indicates), we need to conceptualize posttraumatic growth as actual positive personality change and draw on novel methodological approaches from the field of personality psychology to understand and assess this concept better. We focus on two approaches that we have found to be especially promising in our own research. Among other things, we argue that personality change represents an enduring shift

in the way people think, feel, and behave following a traumatic event. Such a definition is most congruent with the definition of traits provided by Fleeson (2001) and Buss and Craik (1983), in which traits are defined in terms of the frequency with which individuals perform acts representative of that trait (Fleeson and Jayawickreme 2015). We therefore argue that posttraumatic growth has been conceptualized in terms of positive personality change by past research (e.g., Park 2010; Joseph and Linley 2005; Tedeschi and Calhoun 2004), but it has not been measured accordingly. If posttraumatic growth captures an enduring shift in how someone thinks, feels, and behaves, then we should also be measuring it as a change in personality over time using appropriate methods.

Chapter 4 speculates on the possible long-term benefits of adversity. Specifically, we note that that posttraumatic growth may in the long term lead to downstream shifts in personality that are characteristic of wisdom, and discusses how future work can clarify the relationship between the experience of adversity and the development of reflective knowledge about the world and generative behavior characteristic of wisdom. We outline some questions for future research.

Chapter 5 discusses the potential value of adopting a well-being and growth perspective when working with and studying survivors of adversity, failure, and challenge, as well as those who have undergone more significant life challenges, such as trauma and chronic adversity. Our focus here is on refugees and displaced populations, since our work has engaged with survivors of the long-running civil war in Sri Lanka, which ended in 2009, as well as with survivors of the Rwandan genocide against the Tutsi in 1994. Our experiences, as well as interviews that we conducted with these survivors and counselors who have worked with these populations, convinced us that constructs such as posttraumatic growth can play a valuable role in contributing toward the long-term rehabilitation of such populations. Models of posttraumatic growth (and positive psychology more generally) involve a move away from a focus on seeing survivors of ethno-political warfare as victims, instead understanding them as complete and complex human actors within a specific cultural and historical context (Jayawickreme et al. 2013). However, while this approach can lead to the development of strength-based models of psychosocial treatment, it is important for psychologists to not overstate the implications. Although it is feasible that positive character development may occur for some individuals, it is also highly possible based on the current available evidence that posttraumatic growth is an adaptive coping strategy. Individuals may use it to psychologically handle stressors, and then return to their pre-trauma identities. This is not a bad outcome, but, if this is the reality, the definition of posttraumatic growth, however appealing, should not be oversold. This chapter spells out this argument, and serves as a roadmap for how we came to see the value of posttraumatic growth as a possible positive result of engaging with significant adversity.

Finally, we conclude this book with some specific recommendations that we believe will improve the quality of research being done on posttraumatic growth. Our overall goal is to convince you that the phenomenon of posttraumatic growth is a very worthy idea that has been unfortunately poorly studied thus far.

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# 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**.



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> 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 discussed 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 Pietrantoni 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 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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# Chapter 3
# Can We Trust Current Findings on Posttraumatic Growth?

Although posttraumatic growth is widely reported, some researchers are unconvinced about whether these changes represent lasting and genuine transformation. The methodological issues associated with the measurement of posttraumatic growth currently allow many alternative explanations. Perhaps the most noteworthy problems with the measurement of posttraumatic growth are inconsistency in the instrumentation used, an over-reliance on self-reported change, and a lack of longitudinal studies with baseline data collected prior to the event (Ford et al. 2008). More specifically, the cross-sectional and retrospective nature of posttraumatic growth measurement has led some researchers to remain unconvinced that these self-reported changes represent lasting and genuine transformation as argued by Tedeschi and Calhoun (2004), but rather reflect ability to find silver linings in otherwise devastating circumstances (Tennen and Affleck 2002; McFarland and Alvaro 2000), particularly when primed to go looking for them by a questionnaire.

Most of the alternative explanations for posttraumatic growth can be grouped together under the following themes: (1) self-enhancement, (2) an active coping effort, (3) the violation of post-event recovery expectations, and finally (4) personality characteristics and cultural scripts. According to the self-enhancement perspective, posttraumatic growth reflects a reappraisal of the situation to reduce the individual's sense of victimization. Taylor (1983) for example, argued that threatening and stressful life events challenge an individual's sense of self-esteem, sense of personal control, and optimism about the future. Based on her research with female cancer patients, she proposed that people rely on cognitive reappraisal strategies that allow them to restore and enhance their self-esteem, perception of control, and optimism. For example, an individual may compare themselves to others who are less fortunate or inflate their chances of recovery. Taylor claims that these "positive illusions" protect the individual from the initial threat and may eventually allow them to accept their situation (Taylor et al. 2000; Taylor and Armor 1996). In support of this, McFarland and Alvaro (2000) employed an



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experimental approach and observed that self-enhancement strategies function through the derogation of pre-event attributes that are relevant to the dimensions of personal growth. Relatedly, some researchers have argued that the posttraumatic growth literature has proclaimed that people have grown without paying enough attention to the negative changes that follow after adverse life events. It is possible that the positive changes these individuals identify actually represent defensive illusions—an attempt to convince themselves and others that they are coping well and have even found something good from their struggles (Wortman 2004).

Similarly, it has been argued that posttraumatic growth may represent an active coping strategy in the process of coming to terms with a stressful and challenging event. Tennen and Affleck (2002) assert that the process of searching for benefits and actively reminding oneself of these benefits is akin to a coping strategy. There are definite similarities between some of the emotional coping strategies proposed by Folkman and Lazarus (1988) and the outcomes that are said to manifest due to posttraumatic growth. For example, finding faith, discovering what is important in life, and feeling stronger are all present in measures of posttraumatic growth and emotional coping to some degree. It has also been posited that reports of posttraumatic growth represent more avoidant and defensive coping strategies for people low in hope and optimism, and more adaptive strategies for those higher in these resources (Stanton and Low 2004). Conversely, others have claimed that reports of posttraumatic growth represent a survivor's attempt to understand why they are functioning better than would be typically expected. These violations of expectancy accounts posit that an individual may cite changes in line with personal growth, due to a motivation to find a satisfying conclusion for their level of adjustment (Tennen and Affleck 2002).

Finally, posttraumatic growth has been defined as the expression of relevant personality characteristics and cultural scripts. The narrative approach to posttraumatic growth proposed by Pals and McAdams (2004), which was described earlier, can be more broadly construed as an individual difference perspective of personal change. According to McAdams (1994) personality is defined by three parallel levels: dispositional traits, personal concerns, and life narratives. He argues that while specific traits remain stable across adulthood, personal concerns are sensitive to change due to situational circumstances. Consequently, there are particular narratives that may follow changes in an individual's personal concerns that make posttraumatic growth more or less likely. A redemptive narrative is characterized by a move from a negative life scene to a positive life scene, whereas a contamination narrative is characterized by a move from a positive life scene to a negative life scene (McAdams et al. 2001). Thus, according to this perspective, posttraumatic growth may be an expression of this redemptive narrative and therefore more likely to occur in individuals with the psychological resources necessary to generate this narrative. Relatedly, the notion that one can grow from suffering is central to many works of philosophy, literature, and theology, and therefore is likely to be part of an implicit theory of change that many people (especially in the West) hold. As such, people may simply report posttraumatic

growth due to the activation of this cultural expectation (Splevins et al. 2010; Tennen and Affleck 2002).

The methods currently in use to assess posttraumatic growth allow many alternative explanations to the notion that people experience actual changes in growth-relevant domains. As we have discussed earlier, these scales also require participants to undertake a mentally taxing procedure, which has led some researchers to argue that these scales measure global perceptions of change, rather than actual "growth" pre- to post-trauma, or possibly a broader positive outlook on life, such as optimism. Participants must attempt the following five steps for each item on these questionnaires: (1) deduce current-standing on the dimension, (2) recall prior standing on the dimension before the event had occurred, (3) compare these standings, (4) calculate the degree of change, and finally, (5) evaluate how much of the change was due to the traumatic event. Use of these scales therefore assumes that people are able to recall prior trait levels accurately, but, as personality psychologists have demonstrated, perceived change is usually only weakly associated with actual change—participants' self-reported perceptions of change are not actually associated with how they really have changed (Robins et al. 2005; Herbst et al. 2000; Henry et al. 1994). For example, Robins et al. (2005) assessed the personality of 290 college students six times over the course of 4 years, and at the end of the four years asked participants to rate how much they believed their personality had changed. The correlation between in vitro-measured actual personality change and participants' perceived change was modest (around 0.2). We thus hold that *in terms of assessing actual positive change* the PTGI suffers from a significant limitation.

A further limitation of the PTGI is that it does not provide a balanced picture of the positive *and* negative changes that people have experienced, since no questions on the scale allow for the reporting of negative experiences. This increases the likelihood of positive response bias (Tomich and Helgeson 2004) and thus of overtly positive reports of growth (Park and Lechner 2006). One solution to this problem is to include items that assess both positive and negative responses to trauma (Baker et al. 2008; Tomich and Helgeson 2004) and scales assessing both types of changes have been developed and validated (Baker et al. 2008; Joseph et al. 1993). However, the original version of the PTGI remains the most widely used measure in posttraumatic growth research.

As noted earlier, the majority of studies have relied on cross-sectional design and fairly small sample sizes. Helgeson et al. (2006), for example, found that there were not sufficient numbers of longitudinal studies on this topic to include in the meta-analysis. Although there have been more longitudinal studies published since 2006 (e.g., Frazier et al. 2009), these designs are still underrepresented, and often still lack pre-trauma data on posttraumatic growth-relevant domains. (In addition, the sample sizes of the 87 studies reported by Helgeson et al. (2006) ranged from 27 to 1953 participants. However, only 20 of the 87 (23 %) studies had sample sizes of 200 or more participants). This makes it impossible to deduce the causality of the association—was it specifically the event that caused these self-reports of posttraumatic growth or other unknown factors? Furthermore, with very few notable

exceptions (e.g., Cordova et al. 2001), research in this area has not made comparisons to suitable control groups. An exception was Cordova et al. (2001), who recruited a matched control sample of women who were similar in age, income, and education to the trauma group, but had not recently received (nor had previously) diagnosis with breast cancer. This cross-sectional design affords greater confidence that posttraumatic growth is specific to the experience of trauma. Thus, evidence for posttraumatic growth has been drawn from studies relying on retrospective measures from participants whose scores are not compared directly to a no-trauma condition. Therefore, it is difficult to infer that the distressing life event is responsible for the positive changes people perceive. Indeed, the lack of longitudinal work actually leaves many alternative explanations plausible.

## What Do We Really Know About Posttraumatic Growth?

At this point, it would be beneficial to pause and evaluate the evidence for posttraumatic growth, and determine what, if anything, we have learned from the current research. Indeed, in light of the many severe methodological limitations already discussed, some have argued that we have learned very little, and that it would be better to "start over" employing more appropriate methods that are able to test the theoretical questions regarding posttraumatic growth directly (Tennen 2013). This is a strong claim, and as such one that deserves serious consideration, especially given the role that posttraumatic growth may have in psychological recovery from trauma, and the clinical significance of the outcomes theoretically purported to be associated with posttraumatic growth (e.g., reductions in psychopathology and increases in well-being and wisdom; Tedeschi and Calhoun 2004).

What do we know for certain about posttraumatic growth given the current status of the literature? First, people readily report experiencing it following traumatic life events (Linley and Joseph 2004), at least when asked to think about it directly. For example, as discussed earlier, research has demonstrated that self-reports of posttraumatic growth are fairly common. This is not trivial, as we mentioned in the introduction—if people believe they have changed, this phenomenon is then worthy of greater study.

Second, there is evidence from the meta-analysis of the cross-sectional studies (Helgeson et al. 2006) and some longitudinal work (Danhauer et al. 2013) that posttraumatic growth, if measured with a tool considered validated, may predict improved psychological and physical health, although this relationship has not been consistent across studies (e.g. Hobfoll et al. 2007), and there are reasons to question the actual validity of the most commonly used tool, the PTGI, as noted above. Additionally, these adaptive benefits of posttraumatic growth are further supported by the hallmark prospective longitudinal study in this literature (Frazier et al. 2009), which directly measured students' current-standing on posttraumatic growth-relevant domains before and after a trauma occurred and their retrospective reports

of how they had changed since the event. While actual growth assessed prospectively using students' standings on posttraumatic growth before and after the traumatic event was associated with lower distress levels, retrospective reports were associated with positive coping strategies. Thus, this study demonstrated that "perceived growth" potentially has some functional value in that it predicted more effective coping, and that actual positive personality change is of clinical significance. It should be noted that the "perceived growth" as assessed by the PTGI may in fact be assessing benefit-finding or a form of secondary control, as opposed to "actual" growth (Frazier et al. 2016).

Third, nascent research investigating the long-term stability of posttraumatic growth as is currently assessed suggests that retrospectively assessed posttraumatic growth may in fact reflect an individual difference trait. Contrary to what Tedeschi and Calhoun's (2004) theory proposes, posttraumatic growth reports remain stable over time, rather than gradually increasing. As noted earlier, Thompson (1985) and Affleck et al. (1987) did not observe significant increases in self-reports of posttraumatic growth either 1 or 8 years following the event. Self-reported retrospective posttraumatic growth may thus be best understood as an individual difference trait that could be related to how people personally interpret life transitions and challenges (Cantor and Kihlstrom 1987; Bauer and Bonanno 2001). While this may be interesting to assess in its own right, it in fact tells us very little about posttraumatic growth understood as positive personality change—that is, posttraumatic growth as it is actually conceptualized theoretically. As we have noted earlier, posttraumatic growth has been described in terms of positive personality change—for example, Tedeschi and Calhoun (2004) claim that "posttraumatic growth is not simply a return to baseline-it is an experience of improvement that for some persons is deeply profound" (p. 4). However, given the current over-reliance on retrospective and self-reported measurement, which requires people to report on how they have *changed* since the event, rather than on their current-standing at regular intervals, we feel that the skeptical researcher's doubts cannot be fully eased. Furthermore, the only prospective longitudinal study to date did not find conclusive evidence for actual personality change among the majority of their participants (Frazier et al. 2009), although that study's authors concluded by saying "it would be inappropriate to conclude from our findings that people cannot change in positive ways following threatening life experiences" (p. 917) as a relatively small proportion of their sample did demonstrate actual change.

## Conceptualizing Posttraumatic Growth as Positive Personality Change

We believe that psychologists have much to gain by studying posttraumatic growth in a rigorous manner. For one, research on the possibilities for personality change following adversity can lead to greater clarity about the mechanisms underlying

personality malleability and stability. Traditionally, personality was understood to exhibit high levels of stability over the lifespan, and while trait stability over the lifespan is indeed high (Terracciano et al. 2006), recent research has shown that personality can and does change in response to certain life transitions, including those related to work, health, and relationships (Roberts and Mroczek 2008). It could be that specific types of adversity may lead to personality change, and future research can focus on specific adverse life events that could potentially lead to changes in personality. Moreover, it is likely that not everyone will respond to a given traumatic event in the same manner, given that not everyone responds to the other events in the same way, as well as that substantial heterogeneity exists in mean-level changes in personality (Johnson et al. 2007; Roberts and DelVecchio 2000). However, examining those individuals who experiences real changes following different traumas represents an exciting area for future research.

## Can We Expect Changes in the Big 5 Following Trauma?

In this regard, the work of Hoerger et al. (2014) bears mentioning. They hypothesized that bereaved caregivers of patients with terminal lung cancer would experience greater changes than controls in interpersonal facets of extraversion (sociability), agreeableness (prosocial and nonantagonistic), and conscientiousness (dependability). These hypotheses came from research showing that caregivers may seek additional social support during bereavement (Ownsworth et al. 2010), and that the loss of a spouse could lead to significant restructuring of social networks (Bergman and Haley 2009), having implications for specific facets of extraversion, such as sociability. Moreover, they argued that personality change should result from being a bereaved caregiver in part because clearer social norms exist about how one copes and responds to death from an illness with a predictable course (such as lung cancer; Hoerger et al. 2014, p. 2). Consistent with these hypotheses, bereaved caregivers experienced an increase in interpersonal orientation, becoming more sociable, prosocial, and dependable. No changes were observed in the control sample.

This pioneering work presents an exciting example of how research on positive personality change following traumatic life experiences can potentially deepen our understanding of the mechanisms surrounding personality stability and change. Given that psychological science has moved from addressing criticisms regarding the existence and consistency of personality to more fundamental questions about the mechanisms underlying personality (Fleeson 2012; Fleeson and Jayawickreme 2015), research on how different types of adverse and traumatic life events affect personality can provide important insights into the various mechanisms underlying specific personality traits. Moreover, the sociogenomic model of personality (Roberts 2009) posits that repeated reinforcement of state changes in personality-relevant thoughts, behavior, and emotions through established social norms is needed to foster personality development incrementally over time

(Hoerger et al. 2014). Therefore, understanding whether and how changes in personality states following adversity "stick" and lead to subsequent long-term trait change, as well as which personality state changes are expected or reinforced through social norms can provide important insights for future interventions that foster posttraumatic growth (Blackie et al. 2014; Fleeson et al. 2002; Zelenski et al. 2012).

However, given that it is likely that fewer individuals will experience actual personality change following adversity compared to those who retrospectively report growth, this raises interesting questions related to current lifespan developmental models of personality, which argue that personality develops over the lifespan in part because people adapt to social pressures to take on mature social roles (Roberts 2009; Specht et al. 2011). For example, the Big Five traits of agreeableness and conscientiousness have been shown to increase between the ages of 20 and 40 (Srivastava et al. 2003). However, just as Erikson (1950) emphasized how individuals either successfully or unsuccessfully mastered different stages of psychosocial development at different life stages, it is worth acknowledging that not all individuals experience this form of positive personality change, as evidenced indirectly by current rates of psychopathology (Kessler et al. 2005). Just as not all people will experience positive personality changes following trauma and adversity, not all people successfully adapt to new social roles and pressures, and future research should strive to understand the predictors of successful personality adjustment across the life-span.

## Does Perceived Posttraumatic Growth Reflect a Personality Characteristic?

As noted earlier, it may be that retrospective perceptions of growth reflect conscious decisions to self-appraise and utilize personal and environmental resources to restore pre-existing or enhanced levels of self-regulation (Staudinger and Kessler 2009). Such decisions enable individuals actively to modify their behaviors to match their situations, and this ability to successfully navigate the social world in manners that maximize mental health is related to the construct of *psychological flexibility* (Kashdan and Rottenberg 2010). Psychological flexibility refers to a series of dynamic processes that enable an individual to adapt to fluctuating situational demands, reconfigure psychological resources, shift perspective and successfully balance competing desires, needs, and life domains. Research on this topic has been fragmented across many subfields in psychology (Kashdan and Rottenberg 2010), but it is conceptually related to the personality construct of ego-resiliency (Block and Kremen 1996), defined as the dynamic ability to respond adaptively to the situational demands of daily life (Block and Block 2006, p. 318; see also Kashdan and Rottenberg 2010). Moreover, ego-resilient children and young adults are characterized by vitality, curiosity, openness, and speedy recovery

following stress (Gjerde et al. 1986). Thus, individual differences in ego-resiliency may predict successful navigation of trauma, and moreover may lead people high in ego-resiliency to perceive their own resilient response to trauma as growth. This may explain why some people report high levels of posttraumatic growth soon after adverse events (Danhauer et al. 2013; Tennen and Affleck 2002). It may be that people high in ego-resiliency have the resources necessary to experience actual growth from their experience; alternatively, it may be that such individuals merely interpret the unusual activation of their strong coping resources as growth. Whether people high in ego-resiliency are more or less likely to report actual (prospective) changes following trauma remains an untested question.

Ipsative change measures can be relevant to understanding the causes of personality change in the aftermath of trauma. Ipsative change measures allow focus on intra-individual shifts in structure of personality traits over time (i.e., the correlation of an individual's profile of trait scores as measured on one occasion with his or her corresponding profile as measured on another occasion; Lönnqvist et al. 2008). This approach allows consideration of the possibility that there can be differences over time in degree of prominence in a person's personality of various traits. It also reflects recognition that there can be significant between-individual variability in trait development, and that these individual developmental patterns can be markedly different from mean-level developmental trajectories.

Given that ipsative approaches focus on development of personality traits over time within the individual as well as the social-cognitive and contextual factors associated with different developmental pathways (McAdams and Olson 2010; Syed and Seiffge-Krenke 2013), they can help address the question of the extent to which the manifestation of posttraumatic growth is primarily a function of the influence of the traumatic event on an individual's personality or a "mindset" or motivational orientation toward personal growth that influences whether an individual interprets an adverse life event as an opportunity for growth or not. In other words, individual differences in motivational orientation may dictate the degree of flexibility individuals exert in responding to trauma with growth. This topic awaits further empirical investigation.

## Conclusion: Many Unanswered Critical Questions

One challenge to the study of posttraumatic growth is that significant uncertainty remains about what the construct actually is (Tennen 2013). One important research question on which personality psychologists can potentially take the lead is defining and measuring posttraumatic growth in a manner that allows alternative views on the construct to be empirically tested. For example, posttraumatic growth theories talk in explicit terms about personality change, and as such measuring current levels of growth-relevant traits over time represents one valid method for assessing growth (Tennen and Affleck 2009). We believe that posttraumatic growth should be conceptualized and assessed in terms of actual personality change. Alternatively,

however, if growth is manifested primarily in changes in individuals' personal life narratives (Pals and McAdams 2004), then other researchers may prefer that posttraumatic growth be conceptualized and measured in terms of changes in life narratives. The point here is that researchers need to be clear in defining posttraumatic growth, and then measure that conceptualization in the most methodologically rigorous manner possible (see Jayawickreme et al. 2012, for a similar discussion on the myriad definitions of well-being).

As the field stands now, the currently used retrospective measures limit even the inferences that can be made from longitudinal studies. As noted earlier, prospective longitudinal studies involving *current-standing measures* of growth-relevant traits offer the most rigorous test of the predictors, outcomes, and stability of actual change (Frazier et al. 2009). Recent research emphasizing such methods utilizing large longitudinal datasets has shed light on the potentially positive impact of adversity on life satisfaction (Lucas 2007) and resilience (Seery et al. 2010). Such studies employ designs involving measuring the outcomes of interest both before and after the stressful event (e.g., unemployment) has occurred. Moreover, it should be noted that in both examples noted, findings inconsistent with Tedeschi and Calhoun's (2004) theoretical account of posttraumatic growth were found. Lucas (2007) found incomplete adaptation to the effects of unemployment, which Seery et al. (2010) found that moderate (but not severe) adversity was associated with greater resilience. Studies employing such designs should remain the gold standard for measuring personality change following trauma, as opposed to the retrospective measurement strategies currently favored by posttraumatic growth researchers. Moreover, only these types of studies will provide insight into the mechanisms behind posttraumatic growth, which would be critical for both understanding the phenomena and developing successful interventions to promote change in target populations. As Tennen and Affleck (2009) noted, "we know of no other area of psychological inquiry in which the gold standard for assessing change in a skill is to ask people whether their skill level changed since the previous assessment" (p. 45; see also Tennen and Affleck 2002). Retrospective measures such as the PTGI may be related to and predictive of important outcomes such as positive coping (Frazier et al. 2009) and have value as meaningful psychological constructs as a result, but it is unlikely that they capture the type of personality change posited by theoretical accounts of growth given their significant methodological limitations discussed earlier.

We believe one path forward involves utilizing methods that facilitate the assessment of real personality change. In the following chapter, we focus on two assessment methods we have used in our own research that we believe can contribute to better quality research on posttraumatic growth. We discuss some preliminary results and justify their advantages.

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# Chapter 4
# Methodologies for the Study of Posttraumatic Growth: Some New Directions

Perhaps the biggest sign of progress for the field of posttraumatic growth would be a move away from retrospective self-perceived measures (such as the PTGI) as the main assessment tool, and a commitment to prospective longitudinal studies to test conceptual questions. This is not a new claim (Tennen and Affleck 2009), and researchers have made recommendations for how to determine the validity of self-reported posttraumatic growth for a number of years. The methods are typically used and have been summarized by Helgeson (2010). In an ideal world, researchers would collect reports of posttraumatic growth and objective indices of the outcomes associated with growth before and after an adverse event occurred. This method offers the only true objective way to determine whether participants have actually changed in domains associated with posttraumatic growth from pre- to post-adversity (Jayawickreme and Blackie 2014). However, this design is rarely used due to the challenges and expenses associated with surveying a large sample over time, under the assumption that a small percentage will experience an adverse event during the period of assessment. Additionally, there is still value in assessing posttraumatic growth after serious and unanticipated tragedies where it is impossible to collect baseline data, such as transportation accidents. In these cases, researchers have the following options (Helgeson 2010): (a) examine whether individuals who report posttraumatic growth experience tangible health improvements compared to those who do not report posttraumatic growth, (b) use multiple measures to examine the convergence of these measures on a single posttraumatic growth construct (Frazier et al. 2014), and (c) assess whether reports of posttraumatic growth are corroborated by the individual's spouse, family, and friends.



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## Corroborating Reports of Self-perceived Posttraumatic Growth

The last option—corroboration of reports of posttraumatic growth—represents one potentially useful method. As argued by Furr (2009), acquaintance-reports of recent behavior are among the best reflections of actual behavior, and as such may reflect one of the best alternatives in studies where baseline data was not collected. Indeed, researchers should feel more confident that reports of posttraumatic growth reflect actual change if these reports are noticed and corroborated by others. Past research utilizing this method has found evidence for corroboration of posttraumatic growth, although the strength of agreement and the specific domains for which posttraumatic growth are corroborated has varied across studies. Park et al. (1996) were the first researchers to investigate this issue and found significant yet modest agreement (0.21) between the participants' own rating of posttraumatic growth and the ratings of posttraumatic growth given about each target participant by his/her family and friends. The level of agreement increased to 0.31 when Park et al. restricted the analysis to the informants who identified being very close with the participants. However, much higher levels of agreement were found in more recent studies with correlations ranging from 0.40 to 0.69 (see Shakespeare-Finch and Enders 2008; McMillen and Cook 2003; Weiss 2002). Additionally, Weiss (2002) and Shakespeare-Finch and Enders (2008) observed significant levels of agreement for all of the domains of posttraumatic growth as assessed with the posttraumatic growth inventory (PTGI; Tedeschi and Calhoun 1996). The stronger agreement observed in these studies may have resulted from the fact that the participants' events fulfilled clinical criteria for traumatic experiences, whereas Park et al. (1996) included a broader spectrum of events such as romantic breakups and academic challenges.

Contrary to these findings, however, Helgeson (2010) did not find evidence of corroboration between survivors of breast cancer and their nominated informants 10 years after diagnosis when using the standard and well-established Posttraumatic Growth Inventory (PTGI). It is important to note that all participants selected informants who were around at the time of diagnosis and with whom they were still in contact at the time of the follow-up assessment. She did find, however, that informants corroborated some of the lasting effects of the cancer diagnosis when asked in an open-ended format. However, the changes that participants and their informant agreed upon were negative changes to participants' health, self-image, and emotions. The only positive change that survivors and informants agreed was a lasting change since the diagnosis was an increase in helping others who were struggling with cancer. Taken together with the other evidence, this study implies that the positive effects of confronting challenging events may not necessarily persist over an extended period of time. It is certainly interesting that the only positive change to be corroborated at the 10-year follow-up was behavioral and therefore easily observable by other people.

Although there is evidence demonstrating that significant other corroborate participants' reports of posttraumatic growth, the research thus far has only focused on trait-level agreement and, therefore, has singly examined one domain of posttraumatic growth at a time. For example, both Weiss (2002) and Shakespeare-Finch and Enders (2008) only examined agreement between participants' and informants' ratings one construct at a time for the five posttraumatic growth domains assessed by the PTGI. While it is certainly important to demonstrate that others are observing that the participant has changed in each of the domains associated with posttraumatic growth (Tedeschi and Calhoun 2004), it is also critical to account for the fact that all of the changes have been triggered by the occurrence of the same adverse event. For example, a woman battling a breast cancer diagnosis may report experiencing some posttraumatic growth, in so far as she feels closer to her family and God and has realized the importance of making time for the small things. She may, however, also feel vulnerable and less in control of her life. If we were to plot this woman's profile, we would see that she reports greater positive change in the domains of relationships, spirituality, and appreciation of life, and depreciation in the domain of personal strength. Thus, the prior research on corroboration has not assessed whether informants are able to corroborate participants' overall profile of change.

We believe that there are two strong arguments for why we should see evidence of agreement between participants and informants as casting doubt upon the claim that self-perceived posttraumatic growth is *completely* illusory (Blackie and Jayawickreme 2015). For one, given the likelihood that informants arrive at the same conclusions when judging the target participants in spite of their own biases and prejudices, this would imply a greater likelihood that there is something objective to observe in the targets' behavior (Allport 1937; Blackie and Jayawickreme 2015, p. 789). Second, showing evidence of agreement across different judges demonstrates the behavioral stability of posttraumatic growth, as the positive changes are thus shown to manifest in different situations with different people (Blackie et al. 2015; Helzer et al. 2014). Showing agreement, therefore, provides support for the view that self-perceived posttraumatic growth is not solely a reflection of the target's illusory beliefs, and such a method is an appropriate tool to use for answering this question (Kenny and West 2010; Vazire and Carlson 2010). That being said, the study of posttraumatic growth does provide unique challenges that may make it more difficult to find evidence of agreement. While informant reports may provide unique information over and above self-reports about an individual's personality (Vazire 2006), it is also, therefore, true that certain informants may be susceptible to share biases given the nature of their relationship with the targets (Leising et al. 2010). For example, it is possible that informants were able to corroborate target participants' reports because they were just reporting back on what the participants had told them (Frazier et al. 2014). Another related issue is that agreement can be a function of target participants' and informants' shared "positivity bias," driven by a desire to believe that the target was coping well in the aftermath of adversity. However, it is important to note that this bias can only inflate agreement levels in a very unlikely circumstance. As explained by Helzer

et al. (2014), evaluative processes will produce artificial agreement only if each pair of raters shares the same bias with each other, and this bias is different from the bias shared by a different pair of raters about their own target. Finally, posttraumatic growth might manifest only as internal states (e.g., thoughts and feelings) less visible to informants.

We have conducted a series of informant studies in multiple contexts over the last few years (including clinical samples in the south-eastern USA, survivors of the 1994 Genocide against the Tutsi in Rwanda, and individuals displaced by the long-running [and recently concluded] civil war in Sri Lanka). Among a clinical sample recruited in the south-eastern USA (Blackie et al. 2015), we found corroboration only for posttraumatic depreciation (i.e., negative changes, following trauma) when we examined averaged scores on the PTGI. However, using a profile analysis procedure that determines the degree to which participants and informants agree on which domains have relatively higher scores in the target's profile and which have relatively lower scores (Furr 2008), we found significant participant–informant agreement on domains of change that had relatively higher scores in the target's profile and those that had relatively lower scores. These results seem to indicate that informants were able to observe that targets had changed and were sensitive to the idiosyncratic ways in which these changes had manifested in targets' behavior, as they were able to discriminate between domains of posttraumatic growth in making their judgments.

## Assessing Posttraumatic Growth at the Daily Level

Experiencing posttraumatic growth at the daily level may be useful in its own right, particularly when it is conceptualized as positive personality change. Fleeson (2014) makes the compelling point that experiencing changes in dimensions of posttraumatic growth at the daily level following adversity is an important criterion for determining whether individuals' experience of posttraumatic growth following trauma or adversity is "real." Put another way, in order for us to believe the broad changes people report at the trait level, those same changes should be instantiated in daily beliefs, behaviors, and emotions. Reflecting the argument of Maercker and Zoellner (2004), it is possible that people who report "trait" posttraumatic growth may claim to have changed in important ways when making summary assessments, but those claims may not reflect their thoughts, feelings, and behaviors in daily life. Such a disconnect could call into question the benefit of interventions that changed only self-perceived posttraumatic growth, and not growth-relevant thoughts, feelings, and behaviors arising in real-life situations.

How can daily posttraumatic growth be successfully assessed? One possible approach involves daily process methods such as experience sampling (ESM; Conner et al. 2009; Fleeson 2007a, b). For example, in ESM each participant describes his or her current behavior, thoughts, and feelings several times per day for several days using a device (such as a smartphone). ESM has a number of unique advantages over other methods that employ self-report assessment, such as

high ecological validity (Furr 2009; Scollon et al. 2009). In addition, it avoids memory biases associated with retrospective methods of behavioral measurement (such as the PTGI) by asking respondents to describe their immediate or recent experiences (Shiffman et al. 2008).

Utilizing methods such as ESM can establish the extent to which the broader, more existential beliefs characteristic of posttraumatic growth in fact translate into observable differences in daily life. By employing daily methods such as ESM, researchers can begin to understand dynamic processes underlying posttraumatic growth. Such a commitment would also place research on posttraumatic growth in line with current innovations occurring in personality psychology (DeYoung 2015; Fleeson and Jayawickreme 2015). Traditionally (and in the view of many currently), personality has been conceptualized as the *typical* way that individuals think, feel, and act. Such an approach has had significant benefits, as summarizing general tendencies has enabled personality psychologists to successfully describe past behavior as well as predict future behavior and a wide range of important life outcomes (Jayawickreme et al. 2014). Fleeson's (2001) density distribution approach to personality has shown, however, that people's overall description of personality in fact reflect summary descriptions of nuanced distributions of personality states. Moreover, Fleeson's research program (2001, 2004, 2007a, b) has repeatedly shown that most people enable almost all levels of a given personality trait over the course of a week—in other words—they exhibit significant within-person variability. This within-person variability itself is a robust individual difference (Fleeson and Jayawickreme 2015; Wilson and Vazire 2015).

Examining the extent to which posttraumatic growth manifests in daily life and understanding its dynamics would thus increase our understanding of how different forms of adversity impact the individual and lead to changes in personality in the short- and long-term. Such research would deepen our understanding of personality, as it would help us understand the causes for these fluctuations in personality, whether these fluctuations lead to lasting personality change (i.e., changes in average state levels of personality; Fleeson 2001), and what factors could moderate differences in within-person variability in posttraumatic growth.

However, it is worth considering what we currently know about trait posttraumatic growth as a starting point (Jayawickreme and Blackie 2014). As we noted in Chap. 1, people readily report posttraumatic growth following traumatic life events (Linley and Joseph 2004), demonstrating that the *belief* that one has experienced positive personality change is fairly common, and this belief may have value and merit in of itself. "Trait" posttraumatic growth assessed with retrospective self-perceived measures does predict improved psychological and physical health, although this effect is not consistent across studies (Helgeson et al. 2006). And of particular note, Frazier et al. (2009) found that retrospective self-perceived posttraumatic growth predicted more effective coping, while prospectively assessed standings on posttraumatic growth before and after the traumatic event was associated with lower distress.

Our recent work has involved the development of a daily measure of posttraumatic growth utilizing this baseline information (Blackie and Jayawickreme 2014),

with special attention to its psychometric properties (Mogle et al. 2015). The first step in developing our daily measure involved identifying suitable state analogues of posttraumatic growth dimensions that capture the construct at a daily or hourly level. Following Whole Trait Theory (Fleeson and Jayawickreme 2015), we define a state as having the same content as a corresponding trait, but as applying for a shorter duration. States are qualitatively similar to traits, and both states and traits are descriptive of a person's behavior, feelings, and thoughts. A state measure of posttraumatic growth would assess what the individual is concretely doing, thinking, or feeling, at the moment he or she is doing it, in real situations, using the same information and numeric rating scales used to assess the posttraumatic growth constructs at the global "trait" level. In developing this measure (Blackie et al. 2016), we found that creating state versions of such broad items presented unique challenges compared to developing state measures for Big 5 traits, which in many cases involved adapting trait adjectives, such as "bold" or "assertive" for state measures (Fleeson 2001). In order to address this challenge, to examine whether participants have experienced "personal strength," we decided to track the frequency and duration of certain thoughts and feelings associated with successful coping with daily stressors (e.g., "I stayed calm" and "I felt overwhelmed and unable to cope").

In our preliminary study, we assessed 22 students who had experienced a significant adverse life event (from a total recruited sample of 1384) 5 times a day for 9 days, and found that the PTGI domains assessed retrospectively following an experienced adversity (as has been overwhelmingly assessed in the literature) were not associated with the experience of PTGI domains from day to day (with the single exception of spirituality); these findings reinforce notions that self-perceived retrospective growth does not translate to its manifestation in daily life. We are hopeful that such measures will allow researchers to capture fluctuations in posttraumatic growth-relevant constructs within an individual, and thus to study important determinants and outcomes of posttraumatic growth, as well as between-person moderators of daily posttraumatic growth.

Were posttraumatic growth as positive personality change to truly occur? one possibility is that we would see their downstream effects manifest themselves as wisdom. In the following, somewhat more speculative, chapter, we discuss some further research possibilities for examining the relationship between the experience of adversity and wisdom.

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# Chapter 5
# Exploring the Long-Term Benefits of Adversity: What Is Posttraumatic Wisdom?

We have argued that posttraumatic growth should be defined and measured as positive personality change (Jayawickreme and Blackie 2014). Based on the growing literature on character development (Blackie & Jayawickreme, 2014), we believe that PTG would benefit from being measured by examining specific virtues over time, rather than asking about positive changes retrospectively. In this chapter, we make a case for one such virtue: wisdom. Almost all major philosophical and theological traditions have argued that experiencing some adversity is a necessary condition for the full development of one's character. In spite of these accounts, there is currently no consensus about the nature of the specific virtues, traits, and abilities that might develop in response to adversity (Miller 2014). Our discussion has thus far investigated the veracity of this belief, with a focus on how positive changes in the aftermath of adversity could be appropriately and accurately measured, given that most studies have used retrospective measures of self-perceived posttraumatic growth, which, as noted earlier, are problematic in many respects (Fleeson 2014).

Building on what we believe was important foundational work, one possible next goal is to understand *whether* and how changes in response to adversity translate into tangible benefits in an individual's life in terms of the long-term development of the traits and skills characteristic of generative behavior and reflective knowledge—that is, wisdom. One key question that we believe should be the particular target of further investigation and deeper integration for an interdisciplinary team of religious scholars, philosophers, and psychologists is the extent to which adversity affords the development of self-reflective skills and a sense of perspective that are key to the full development of one's character (Tiberius 2008).

We believe that the research on posttraumatic growth has not clearly specified the distinct personality dimensions and character virtues that may change following experiences of significant adversity. In this chapter, we investigate the intuitive claim that confronting adversity can make us *wiser* by examining the existing literature on wisdom to determine whether the traits, skills, and virtues characteristic of wisdom are likely to change following adversity. This is an important question to investigate, as the cultivation of these wise skills may facilitate a deeper



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understanding of existential (or "ultimate") concerns, an increased desire to address spiritual questions, and a more sophisticated understanding of such entities as forgiveness, love, and compassion. The conditions under which adversity can foster wisdom have neither been successfully stipulated conceptually, nor assessed scientifically. Future research should seek to clarify the specific traits, skills, and virtues that characterize wisdom following adversity, and the different types of adversity that may result in the development of wisdom.

## Is There Reason to Believe People Become Wiser Following Adversity?

As noted earlier, research has shown that people who self-perceive *posttraumatic growth*—positive psychological change experienced as a result of the struggle with highly challenging life circumstances—report experiencing a greater appreciation of life, more intimate social relationships, heightened feelings of personal strength, greater engagement with spiritual questions, and the recognition of new possibilities for their lives (Tedeschi and Calhoun 2004). These changes reflect important qualities of character such as diligence, generosity, love, purpose, and humility, and have been associated with lower levels of depression and higher levels of well-being (Helgeson et al. 2006). Some theorists have claimed that these changes represent meaningful growth in response to adversity that is characteristic of wisdom (Calhoun et al. 2010; Linley 2003). For example, Linley (2003) presented an argument for the process through which the experience of adversity may result in increased wisdom. Specifically, Linley identified three dimensions that have direct implications for the role of wisdom as both a process and an outcome of positive adaptation to traumatic events. These dimensions included:

- Recognition and management of uncertainty in life (occurring through shattered schemas and positive adaptation in its wake, including openness to change)
- Integration of affect and cognition (individuals are aware but not "at the mercy of" their somatic sensations in facing up to life)
- Recognition and acceptance of human limitation (such as the tolerance of uncertainty given that we have limited knowledge and insight about the world; recognition of our limited life span).

It is important to note that Linley's model of wisdom draws heavily upon the current theoretical approaches in the posttraumatic growth literature. However, there are a number of controversies associated with these accounts (Jayawickreme and Blackie 2014), which merit rigorous empirical investigation before a model of wisdom can be accepted. For example, Linley's model relies on the basic assumption that adversity can shatter an individual's worldview (Janoff-Bulman 1992), but to date there is little empirical evidence to support the notion that

worldviews are "shattered" and need to be rebuilt before an individual may change and grow from their experience (Jayawickreme and Blackie 2014; Seery et al. 2010; Tennen and Affleck 2002). Additionally, as we have already noted, the status of self-perceived retrospective reports of posttraumatic growth remains highly controversial (Ford et al. 2008; Jayawickreme and Blackie 2014; Tennen and Affleck 2009). Given the lack of clarity over what self-perceived posttraumatic growth reports measure, the specific virtues, traits, and abilities that develop in response to different types of adversity remain poorly defined, with a lack of clarity over what the processes and outcomes of posttraumatic growth in fact are (e.g., are the five dimensions of posttraumatic growth identified by Tedeschi and Calhoun (2004) processes or outcomes?), and whether experiencing posttraumatic growth can be said to be a benefit when accompanied by significant posttraumatic depreciation (Miller 2014).

## What Is Wisdom? A Brief Overview of Psychological Accounts

Multiple perspectives on wisdom exist in the psychological literature, in part due to both the recent increase in interest in the topic (influenced in part by such initiatives as the Wisdom Research Initiative at the University of Chicago) and the nebulous nature of the term itself. It should be noted that no generally agreed-upon definition of wisdom currently exists in the psychological literature (Ardelt 2003), and at least four distinct perspectives on wisdom are present in the psychological literature (Yang 2008).

**Wisdom as a positive end goal of human development (*wisdom as achievement*)**. Some of the earliest conceptualizations of wisdom in psychology have come from the developmental literature, where wisdom has been defined either as the optimal end stage of human development (Erikson 1950) or as psychological capacities that emerge after advanced cognitive structures have been developed (Yang 2008). For example, Erikson defined wisdom as the "ego strength" that emerges after the resolution of various life challenges over the course of the life span. This account is perhaps the most consistent with current theorizing on posttraumatic growth (Tedeschi and Calhoun 2004), as wisdom is the outcome that follows from the resolution of challenging experiences. Labouvie-Vief (1990, 2000) has alternatively argued that the development of wisdom is based on intellectual development across the life span. Kramer (1990, 2000) has argued that wisdom is a skill that develops from the process of reflecting on and grappling with important existential life issues.

*The development of humility and the "quiet ego"*: In recent years, personality scholars have tried to operationalize Erikson's (1950) approach to wisdom in terms of the development of related personality and character traits, such as humility. Humility is the *willingness to accept the self's limits and its place in the grand*

*scheme of things, accompanied by low levels of self-preoccupation* (Tangney 2000). An individual high in the trait of humility is capable of tolerating and accepting weaknesses alongside strengths in her personality nondefensively, and without any self-aggrandizing biases (Exline 2008). A humble person thus has high self-awareness, which involves needing "an enduring commitment to constructing a self-conception that is responsive to the truth and to our ideals" (Tiberius 2008, p. 125). Humility predicts increased forgiveness, generosity, helpfulness, and better social relationships, and has been associated with reduced trait levels of neuroticism and narcissism (Exline and Hill 2012). Humility may thus be a critical trait needed to make the type of sound judgment associated with wisdom. Moreover, Kesebir (2014) has noted the relationship between the trait of humility and the notion of a "quiet ego," defined as a perspective on life that enables a balance between concerns for the self and others, a compassionate and interdependent view of the self, and a tendency toward personal growth (Wayment and Bauer 2008, p. 611). Humility may thus be a critical trait needed to make the type of sound judgment associated with wisdom, and could be a trait fostered in the wake of adversity.

Research and theorizing has also focused on humility in specific domains. For example, while humility refers to a variety of domains, the epistemic virtue of intellectual humility pertains to one's knowledge or intellectual influence. Intellectual humility can be seen as a form of domain-specific humility, and involves an individual having a high level of insight about the limits of one's knowledge as well as regulating arrogance, which involves the ability to present one's ideas in a non-offensive manner and receive contrary ideas without taking offense (McElroy et al. 2014). Intellectual humility has been increasingly viewed as a core component of wisdom by psychologists (Grossman, in press).

**Wisdom as the possession of specific psychological capacities (*wisdom as trait*)**. A number of psychological approaches to wisdom conceptualize it as a constellation of specific personality characteristics or traits rather than as a unified construct. Bluck and Glück (2004) attempt an integrative definition of "*wisdom as trait*" as "an adaptive form of life judgment that involves not *what* but *how* one thinks. It is a combination of experiential knowledge, cognition, affect, and action that sometimes occurs in social context. Wisdom is defined as a personal resource that is used to negotiate fundamental life changes and challenges and is often directed toward the goals of living a good life or striving for the common good (p. 545)." Holliday and Chandler (1986) posit a list of capacities that include exceptional understanding, judgment and communication skills, general competence, interpersonal skills, and social unobtrusiveness. Ardelt (2008) defined wisdom as a personality characteristic that integrates cognitive, reflective, and affective personality qualities. Moreover, she argued that a person has to be willing to learn from life's lessons (i.e., have a "growth mindset") and to be transformed in the process in order to develop wisdom.

*The MORE Life Experience Model*: In a similar vein, Glück and Bluck (2014) have defined wisdom in terms of four resources: MORE (mastery, openness, reflectivity, and emotional regulation and empathy). People can develop these resources by seeking wisdom-fostering experiences and dealing with challenges in their own and

others' lives in a manner that promotes wisdom (such as reflecting on memories of past events and using the power of hindsight in ways that shape their future plans and goals in positive ways). Of note, the MORE Life Experience model proposes that these traits help individuals deal with life challenges in a way that fosters the development of wisdom—in other words, they may *facilitate* rather than constitute wisdom. These claims await rigorous empirical assessment (Glück and Bluck 2014).

*Secondary control*: Similarly, the construct of secondary control (Helzer and Jayawickreme 2015) involves regulation of one's cognitions or reactions to the world, typically in the service of accepting present circumstances and adjusting the self to accommodate those circumstances (Morling and Evered 2006). This is contrast to primary control, which involves behaviors aimed at changing the world to fit the desires or needs of the self (Rothbaum et al. 1982). Developing the skills of secondary control can involve a diverse number of strategies, including cognitive restructuring, positive thinking, acceptance, and even distraction from a stressor (Connor-Smith et al. 2000). The development of the ability to utilize the skills of primary and secondary control has been at the heart of some definitions of wisdom: "Wisdom seems to emerge as a dialectic that, on one pole, is bounded by the transcendence of limitations and, on the other, by their acceptance" (Birren and Fisher 1990, p. 324).

In summary, a wide diversity of traits have been proposed to constitute wisdom (Birren and Fisher 1990), and while there is agreement that the wise person is without doubt an extraordinary person, there is less agreement about the content of his character.

**Wisdom as a system of knowledge about the meaning and conduct of life (*wisdom as knowledge*)**. Perhaps the most prominent conceptualization of wisdom is the Berlin Wisdom model proposed by Baltes and colleagues (Baltes and Smith 1990; Kunzmann and Baltes 2003; Smith et al. 1994). In this account, wisdom is often applied to life planning, life management, and life review, and is manifested as an expert level of knowledge in the fundamental pragmatics of life (Baltes and Staudinger 2000). Moreover, wisdom is thought to be the result of intellectual change in cognitive functions during adulthood and old age. Thus, the core of wisdom consists of knowledge one accumulates through employing those intellectual functions in domains related to dealing with human affairs (Baltes et al. 1984; Baltes and Smith 1990). In the Berlin paradigm, wisdom consists of (1) factual knowledge about life and life span development, (2) procedural knowledge about how to live life and deal with life problems, (3) knowledge about the contexts of life and their dynamics (e.g., the fact that life is made up of different themes and contexts, such as education, family, work, friends, the good of society; and that these contexts vary across culture and time), (4) knowledge about the relativism of values and life goals (e.g., that life goals vary depending on the individual and culture), and (5) recognition and management of uncertainty, given that the validity of human information processing is itself limited, that individuals only have access to a limited part of reality, and we cannot know the future in advance (Staudinger et al. 1992; Baltes and Kunzmann 2003). According to this view, wisdom provides a broad framework (or metaheuristic) within which specific decisions about one should lead a "good life" can be made (Baltes and Freund 2003).

**Wisdom as "right thought" coupled with "right action" (*wisdom as skill*).** These accounts of wisdom acknowledge the socially embedded nature of individuals, and note that as a result a complete account of wisdom should entail embodied action and the resulting effects that can be evaluated by multiple parties. Sternberg (2003) defines wisdom as "the application of intelligence and creativity as mediated by values toward the achievement of a common good through a balance among (a) intrapersonal, (b) interpersonal, and (c) extra-personal interests, over the (a) short- and (b) long-term, in order to achieve a balance among (a) adaptation to existing environments, (b) shaping of existing environments, and (c) selection of new environments" (p. 123). Such a definition of wisdom affords the opportunity for corroboration of self-perceptions of wisdom, as the wisdom-relevant actions can be evaluated by those affected by the target's actions. Similarly, Yang (2014) has posited that at least three core components work together to produce wisdom: (a) a cognitive integration of separate ideas or conflicting ideals to form an idea that promotes the good, (b) the embodiment of this integrated idea or vision in actions, and (c) the positive effects of these actions for the actor and others. On this account, the process of wisdom is complete only when all three components occur. Finally, Grossman (in press) highlights empirical evidence indicating that people's ability to think wisely varies dramatically across experiential contexts they encounter over the life span.

**Lay conceptions of wisdom (implicit-theoretical approaches to wisdom).** In addition to developing a formal theory of wisdom, psychologists have also been interested in understanding people's lay conceptions (or folk understandings) of what wisdom is—that is, a view that is true to people's beliefs about wisdom, irrespective of whether the view is psychologically true or not (Sternberg 2001; Weststrate et al. 2016).

**Distinguishing between general wisdom and personal wisdom.** Finally, Staudinger and Glück (2011) have distinguished between two broad theoretical views on wisdom: personal wisdom—wisdom as self-related knowledge acquired through direct personal experience—and general wisdom—wisdom as world knowledge that can also be acquired in more indirect ways. The critical difference between the two views is their relative emphasis on first-person life experience, particularly with the role of critical life challenges (König and Glück 2014). The personal wisdom view is best captured by *wisdom as knowledge* accounts.

## Unanswered Questions on How Wisdom May Develop Through Adversity

In comparing the different accounts of wisdom outlined above, it remains for future research to determine which account of wisdom is most influenced by experiences of adversity. For example, in *wisdom as achievement* accounts, wisdom enables individuals to face life concerns in a mature and emotionally stable manner even as they confront the reality of death (Erikson et al. 1986). While the experience of adversity

could possibly facilitate such a perspective, wisdom is theorized to occur as a direct result of the developmental processes associated with aging (i.e.,"ripening"; Birren and Fischer 1990). It is thus unclear what specific role adversity plays here in the development of wisdom. *Wisdom as trait* models see high levels of wisdom as a function of individual differences in specific psychological capacities, and while such traits may increase (or indeed decrease) as a function of different forms of adversity, it may also be that the presence of such traits may predict better adjustment (i.e., resilience) in the wake of adversity. Such accounts may be most consistent with current thinking on posttraumatic growth. *Wisdom as knowledge* approaches in fact argue that adversity is *not* necessary for the development of wisdom, as individuals can become wise through reasoning as opposed to significant life experience (see the Rosewood Report on Wisdom: http://wisdomresearch.org/forums/t/846.aspx#). Finally, while *wisdom as skill* approaches emphasizes the practical significance of wisdom, no developmental role is specified for adversity. In short, such questions have not yet been discussed in substantive detail.

With regard to Linley's (2003) review on "posttraumatic wisdom" discussed above, his proposed theory does share some common themes with multiple models of wisdom, but does not distinguish between them. In our view, the theory shares with the Berlin Wisdom Paradigm an emphasis on the importance of recognition and management of uncertainty. Linley's model also shares similarities with the MORE Life Experience Model, given the importance of personality traits such as openness to experience to the development of wisdom. Finally, the developmental aspects of wisdom inherent in Linley's argument share similarities with the notion that wisdom develops over the life span following significant life experiences (Erikson 1950).

However, Linley argues that only trauma that threatens "everything from the satisfactions of the body to the fulfillments of the soul" (Valent 1998, p. 1, quoted in Linley 2003, p. 603) can be a catalyst of posttraumatic wisdom. Current research (e.g., Seery et al. 2010) suggests that this may not necessarily be the case, as significant life challenges that do not meet the definition of trauma (such as relationship stress, financial difficulties, and bereavement) may in fact predict better subsequent functioning and well-being. More importantly, the review, while being the first in the psychology literature to explicitly discuss the possibility of wisdom following adversity, does not adequately contextualize the experience of adversity within the multiple approaches to resilience and stress that exist in psychology outside the clinical posttraumatic literature (as well as the perspectives that exist in other fields). Thus, the question of whether wisdom following adversity can fit in successfully to one of the multiple existing models in the psychological literature (discussed earlier) has not been systematically answered.

Further extending and enriching this argument, the philosopher Miller (2014) responded to our call for interdisciplinary dialogue by asking for clarity on the conceptualization of posttraumatic growth. In addressing Miller's concerns, we (Blackie and Jayawickreme 2014) agreed that existing definitions of posttraumatic growth were in fact limited, as current theories tend to conflate the *process* of identifying positive changes with *outcomes* that may result from identifying

changes (Tennen and Affleck 2002). For example, Miller (2014) argued that a greater perception of meaning and purpose could be defined both as posttraumatic growth (as it is a "positive psychological change"), and as an outcome to result from other changes such as more intimate social relationships. He argues that the definition of posttraumatic growth as "positive psychological change" (Tedeschi and Calhoun 2004) is too broad and encompassing. We have since argued that it may therefore be fruitful to separate out process variables from outcome variables and use distinct terms, with the term "posttraumatic growth" best reserved for describing the *outcome* of higher cognitive functioning and behavior. What, however, would count here as "higher cognitive functioning and behavior?" We believe the behaviors, cognitions, and emotions associated with wisdom offer one possible answer toward a more concrete definition in part because of the ability of the skills associated with this trait to help us reflect critically on our values and long-term goals (Tiberius 2008), and the motivation these insights give us to change our behavior in meaningful ways. One possibility is that the Posttraumatic Growth Inventory (Tedeschi and Calhoun 1996) may be assessing the process of identifying benefits or lessons learned through adversity, which could represent fleeting lessons for some who return to their lives after the worst has passed, or the catalyst for deeper character change for those determined to live in life based on those lessons.

## Identifying the "Wise Profile"

The philosopher Miller (2014) recently raised an important concern about the conceptualization of posttraumatic growth. If a person only experiences one positive change (e.g., stronger relationships) and they actually depreciate in many other respects, does that still count as posttraumatic growth? With this concern in mind, we intend to use past theoretical work from multiple disciplines to specify the core psychological capacities that characterize the wise person. Essentially, one plan is to outline how the profile of the wise person manifests in his/her daily life. Wisdom is an emergent property that is more than the sum of its parts; wisdom is only manifested when individuals enact a set of virtues that give them the capacity to make good judgments about what matters in life and to act on these judgments within the boundaries of what is under their control. The "*wise profile*" would outline the core capacities that characterize wisdom following adversity, and the relationships between these core capacities. For example, a wise person may experience an increase in the all of the following capacities—acceptance (of uncertainty), empathy, self-insight, and emotional regulation. By this reasoning, an individual who reports only experiencing a greater acceptance of their current reality may not be deemed "wiser." (One of the challenges here however would establish appropriate cutoffs for each of the capacities.) This change (albeit perhaps adaptive) may reflect an effective coping mechanism. Such theorizing will serve as the basis for our empirical research and outline the capacities that characterize wisdom following adversity along with how these core capacities interact with one

another to result in the development of wisdom over time. As specified in the Rosewood report, a person cannot enact wisdom without also enacting other virtues (e.g., courage and compassion), but the individual can have these virtues without being wise. One of the difficult challenges that psychologists facing is to determine the best way to measure the interaction between these traits and establish a metric for determining who has reached a sufficient threshold to obtain each trait.

## Some Foundational Questions to Address in Studying Wisdom Following Adversity

Although wisdom is not a simple construct to define, it is typically conceptualized as enacting a set of skills that give one the capacity to make good judgments about what matters in life and to act on these judgments within the boundaries of what is under their control. Being wise involves having deep insight and knowledge about oneself and the world that translates into sound judgment and acceptance of uncertainty (Wink and Helson 1997). What is distinctive about the psychological capacities approach to wisdom (e.g., Bluck and Glück 2004) is its focus on the required capacities that the wise person enacts when making sound judgment. Thus, according to this approach, wisdom is a process that is served by a set of psychological capacities. Based on this conceptual approach, our future work aims to identify the specific psychological capacities that encompass the concept of wisdom following significant adversity. Essentially, future research should investigate how these psychological capacities are manifested in the daily life of the wise person who has encountered adversity. A recent comprehensive review of the literature revealed that the psychological capacities that characterize wisdom include knowledge about the fundamental pragmatics of life; acceptance of uncertainty; self-insight, empathy, and compassion; mastery over challenging life experiences; successful emotional regulation; openness to experience; mindfulness; and the capacity to make good judgments (Tiberius 2010). Furthermore, almost all major philosophical and theological traditions have argued that experiencing adversity can lead to greater wisdom, and many psychologists have further proposed that increased wisdom is one potential benefit of adversity. However, we believe that the conditions under which adversity can foster wisdom have neither been successfully stipulated conceptually nor assessed scientifically. These include the following questions:

1. What are the core skills and traits that characterize wisdom following adversity?
2. Does adversity really change people or simply reveal existing wisdom in people?
3. Are the traits and skills associated with wisdom following adversity qualitatively distinct from those associated with other types of wisdom (i.e., personal wisdom, practical wisdom)?

4. Conversely, does adversity simply accelerate the normative life span process by which we gain wisdom?
5. What is the adaptive value of wisdom following adversity? Does it foster psychological "toughness?"
6. Is there an increase in wisdom following adversity more likely for people who already have a necessary set of preexisting attributes? What are those attributes?
7. Do some forms of adversity "teach" wisdom that leads to the "good" life, while other forms provide deep insights (the midst of psychological struggle) that are *not necessarily* translated into increased well-being?

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# Chapter 6
# Employing the Tools of Growth: The Example of Displaced Populations

*Say this city has ten million souls,*
*Some are living in mansions, some are living in holes:*
*Yet there's no place for us, my dear, yet there's no place for us.*
*Once we had a country and we thought it fair,*
*Look in the atlas and you'll find it there:*

*We cannot go there now, my dear, we cannot go there now.*
*In the village churchyard there grows an old yew,*
*Every spring it blossoms anew;*
*Old passports can't do that, my dear, old passports can't do that.*

*The consul banged the table and said:*
*'If you've got no passport, you're officially dead";*
*But we are still alive, my dear, but we are still alive.*
(W.H. Auden, "Refugee Blues").

*It often appears as if [researchers] base their judgments on observations and ad hoc interviews instead of having profound and in-depth knowledge of the refugees' views on things. Authors frequently claim with great confidence that they know what refugees need, what problems they have, and that refugees have the same priorities. Often the impression is that refugees are not seen as subjects and actors, with their history, aspirations, resources, capacities, and views. Who has asked the refugees?*
(Hoeing, 2004, p. 3).

Much of our work has focused on the experiences of the survivors of various forms of trauma and adversity. Specifically, we have conducted a number of research studies among survivors of the recently concluded civil war in Sri Lanka that lasted from 1983 to 2009 (Jayawickreme et al. 2010, 2012a, b) and the 1994 Genocide against the Tutsi in Rwanda (Blackie et al. 2014; Blackie et al., in press; Lacasse et al. 2014). In our fieldwork, we have had the opportunity to speak to the individuals directly affected by the long-term effects of ethnopolitical warfare and the counselors and aid workers supporting these individuals. These conversations



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revealed to us that many individuals, and counselors in particular, believe that posttraumatic growth is a relevant and observable phenomenon in these situations. Thus, our research and experiences leave us currently hopeful that a growth-minded approach to the welfare of these communities can provide useful tools in ensuring that they can recover and continue with their lives in their wake of their experiences. In this chapter, we will outline the potential of research into posttraumatic growth to contribute to meaningful interventions that aid the recovery of individuals exposed to repeated hardships of conflict and displacement.

## How Has Refugee Mental Health Been Studied?

It should first be noted, however, that most research on mental health among refugee and internally displaced populations has focused on identifying patterns of psychiatric symptomatology and syndromes such as PTSD and depression (Jayawickreme et al. 2012). These studies have yielded important findings regarding refugees' experiences of distress (Somasundaraum 2014). The peak of interest in the psychological health of refugee populations was during the 1980s; a fact that can be partially attributed to the inclusion of PTSD in the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1980. As a result of this, the study of refugee mental health was dominated by trauma researchers; a fact clearly marked by the increase in the number of articles in the psychology literature referencing refugees relative to articles in the medical literature (Ingleby 2005, 2005). However, critics of the concept of PTSD have argued that the increasing prominence of the trauma concept in the 1980s itself became a social phenomenon that arguably took precedence over the actual problems that individuals had (Jayawickreme et al. 2013; McNally 2003). The evaluation of the refugee condition in terms of their experience of trauma had the effect of both focusing attention on the mental health of refugee populations for the first time, and identifying individuals within those populations who were suffering from significant psychological distress. However, this focus meant that in many early studies, only data on mental illness (and in many cases, PTSD symptomatology) was collected, and alternative approaches of assessing refugee mental health were not considered.

## Criticizing Prevailing Approaches to Refugee Mental Health

Early research on displaced populations focused predominantly on analyzing and describing negative and harmful aspects of refugee life and living conditions (Cernea and McDowell 2000; Strachan and Peters 1997). While it is undeniable that

displaced populations almost always live in conditions of significant material deprivation (e.g., Rawlence 2016), Hoeing (2004) has argued that a "deficit-focused" emphasis in research and in the general perception of refugees as weak and deficient can have serious negative consequences; it perpetuates the label of refugees as helpless and powerless victims (Eastmond 2000; Harrell-Bond 1999; Pupavac 2002; Wessels 1998); reinforces and justifies the humanitarian "aid regime" in assuming primacy in taking care of refugee populations (De Voe 1981; Dick 2002; Harrell-Bond 1986), and denies refugees the role of being active social and political actors and agents of their own recuperation (Bracken et al. 1995; Dick 2002; Jamal 2003; Punamäki 2000; Pupavac 2002; Rieff 2002; Summerfield 1995, 1999). A more extreme argument is offered by Summerfield (1995, 1999, 2002, 2005), who has claimed that for most people whose lives have been affected by ethnic conflict, the conception of posttraumatic stress is little more than an over-hyped label to the normative stress that individuals endure in times of conflict (see Jayawickreme et al. 2013, pp. 314–316 and Stagnaro et al., in press, for a more detailed discussion of these issues).

Moreover, it is worth noting that there is a significant difference between an individual who experiences a single traumatic event and the everyday challenges—including possible threat, lack of security, deprivation, and mental stress—that are part and parcel of a displaced individual's everyday life. The PTSD diagnosis posits (or at the very least encourages) a simplistic and singular reason for the psychological distress of refugees: a single traumatic event, or a finite sequence of traumatic events (Jayawickreme et al. 2013; Shing et al., in press). Not having meaningful roles or occupation, losing community and social support, economic concerns, relative powerlessness, social isolation, lack of environmental mastery, discrimination, and unwanted changes to their way of life can cause significant distress among refugee populations (Gorst-Unsworth and Goldenberg 1998; Silove et al. 1997; Sinnerbrink et al. 1997). The drawback of seeing refugees as unique "victims" is that such a perspective obfuscates the fact that they are also normal human beings with "normal" worries in exceptionally challenging situations (Miller and Rasco 2004).

Finally, the conception that refugees are simply victims hides the fact that many of them "are also survivors…. and even the most destitute still exercise active interpretations and choices" (Summerfield 1995, p. 353). Perhaps most famously associated with this view is the Holocaust survivor Viktor Frankl (1984) who claimed that when someone is no longer able to change the situation, they must instead change themselves (Stagnaro et al., in press). Thus, perhaps the biggest limitation of seeing refugees as "victims" of trauma is that it obscures the fact that people actively engage in finding meaning in what happens to them, and refugees frequently cite faith, religion, spirituality, and political convictions as resources that help them to derive meaning from and endure even in the worst atrocities (Jayawickreme et al. 2013; see also Hoeing 2004; Bracken et al. 1995; Cornish et al. 1999; Eastmond 2000; Harrell-Bond 1999). This tendency to search for meaning from our experiences is inherent to posttraumatic growth, and therefore the deficit approach to PTSD cannot accommodate this possibility.

## From Victims to Survivors: Recognizing Individuals' Agency

Despite the fact that the PTSD concept has dominated the field of refugee mental health through the end of the twentieth century, other approaches have now begun to receive more attention (Somasundarum 2014). Watters (2001) outlined a series of "emerging paradigms" in the care of refugees. One such approach is the public health approach, which is closely connected to the psychosocial approach. Ahearn (2000) defines the term *psychosocial*, following the Oxford English Dictionary, as "pertaining to the influence of social factors on an individual's mind or behavior, and to the interrelation of behavioral and social factors." Agger (2000) cites Bergh and Jareg (1998) definition of "psychosocial" as attempting "to express the recognition that there is always a close, ongoing circular interaction between an individual's psychological state and his or her environment" (p. 13). The World Health Organization (1996) adopted the phrase "psychosocial well-being" and defined it as a "state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." This definition goes beyond definitions of well-being in the psychology literature in its emphasis on physical and social well-being. In light of this, the aims of psychosocial assistance under war conditions have been defined as the promotion of human rights and mental health through strategies that support protective social and psychological factors that already exist and lessen the stress at multiple levels of intervention (Agger 2000; Agger et al. 1995).

In keeping with this wellness-oriented approach, Cowen (1991) claims that psychological interventions should focus on building health rather than simply attempting to combat sickness. This approach has a historical lineage not dissimilar to that of positive psychology (Schueller and Seligman 2008), and owes much to both Maslow's (1954) discussion of basic human needs, and Jahoda's (1958) discussion of positive mental health. This psychosocial approach to refugee mental health has attempted to remedy the one-dimensional approach adopted by the PTSD model, primarily by stressing that the road to recovery for many people affected by conflict lies in alleviating their lives as a whole, and not simply focusing on treating symptoms of psychological distress in isolation (Almedom and Summerfield 2004). Moreover, the psychosocial approach adopts a substantially broader definition of what constitutes an appropriate intervention or treatment, given its focus on communal resources and negative social conditions, as opposed to solely focusing on the alleviation of individual pathological symptoms. Given that one of the goals of psychosocial interventions is to help refugees deal with stress through multiple levels of intervention, attempts have been made to disentangle the various domains that may be affected by trauma, and that may serve as efficient targets of intervention. Silove (1999) has proposed a model that defines the key adaptive systems threatened by disasters, arguing that identifying the systems that are mobilized or undermined by trauma may provide psychosocial researchers with a clearer perspective on the intervening processes linking the experience of trauma to mental health outcomes and whether these responses are restorative or dysfunctional.

The ADAPT (Adaptation and Development After Persecution and Trauma) model identifies five salient adaptive systems and their associated domains:

1. The safety system → Security and safety
2. The attachment system → Interpersonal bonds and networks (including the family, kinship, groups, community, society)
3. The justice system → Justice and protection from abuse
4. The existential-meaning system → Identities and roles (such as parents, worker, student, citizen, or social leader)
5. The identity/role system → Institutions that confer existential meaning and coherence, including traditions, religion, spiritual practices, political and social participation

(Silove et al. 2006)

Within this framework, the PTSD model is tied most closely to the safety system, with many traumatologists favoring the hypothesis that the perspective of threat is closely linked to increased risk of PTSD (Basoglu and Parker 1995). Expanding the scope of the systems affected by trauma allows psychosocial researchers to better understand how trauma weighs down each of these systems to the extent that they preclude successful *adaptation* to the traumatic experience. Such an approach would also allow researchers to better understand pathological responses to stress and trauma that are not captured by the PTSD model. For example, the disruption of the attachment system—through the loss of close family and friends—has been associated with nostalgia and homesickness (van Tilberg et al. 1996), as well as with traumatic grief (Horowitz et al. 1997). Other disorders associated with the disruption of the attachment system include separation anxiety in adults (Manicavasager et al. 1997) and cultural bereavement, described as an overwhelming feeling of nostalgia and homesickness for life back in the country of origin (Eisenbruch 1991).

Despite the increasing support of psychosocial programs by Western governments and other international humanitarian agencies, a number of serious limitations of the psychosocial approach have been noted. Given that a substantial amount of refugee mental health research has not utilized a well-being approach (Silove 1999), little is known about factors that promote resilience or serve as protective moderators among populations. This is where the research into posttraumatic growth and related concepts in the field of positive psychology can contribute to a fuller understanding of the refugee experience. In the absence of this information, the definition of psychosocial well-being will remain a source of contention (Jayawickreme et al. 2012) with most psychosocial researchers content to focus on the factors associated with psychosocial well-being including income level, household size, self-sufficiency, employment, schooling, and social networks (Ahearn 2000; McSpadden 1987). In contrast, the researchers who have attempted to define and measure psychosocial well-being have drawn too heavily upon the existing literature and therefore their analyses of refugees' psychosocial well-being draws substantially from concepts of loss, separation, stress, and trauma, emphasizing what is *lacking* for refugees to experience well-being (Ahearn 2000). The field of positive psychology (which posttraumatic growth is part of) therefore has much to offer in improving the definition and measurement of psychosocial

well-being. The primary aim of positive psychology is to identify the factors that promote optimum well-being in individuals in the form of positive experiences (e.g., happiness) and traits (i.e., optimism) and in societies in the form of positive values, institutions, and citizenship (Seligman and Csikszentmihalyi 2000).

## The Value of Growth-Focused Models in Improving Refugee Mental Health

To summarize the literature reviewed thus far, much refugee research seems to have been almost completely dominated by the medical model, which has stressed the diagnosis of psychiatric disorders to the detriment of the notion that refugees are simply individuals with strengths and resources that have been caught in abnormal situations. The dominance of the PTSD concept in refugee research has resulted in an incomplete understanding of how individuals and communities react to and overcome the stressors associated with being a refugee. Much of the existing research obscures the fact that many refugees do not show evidence of any psychiatric disorder, and even those that do nevertheless function effectively (Summerfield 1995, 1999). There is little insight on how most refugees continue to function adaptively in the wake of extreme situations, and on which resources and strengths facilitate such functioning, mainly because of the focus on concepts of loss, separation, stress, and trauma, which emphasizes what is lacking for refugees to experience well-being. Additionally, most disorder-focused interventions designed to alleviate psychological distress neglect the many wellsprings that refugees may rely on to maintain an adequate level of well-being. While the psychosocial approach has the promise to provide an alternative perspective to the trauma-based perspective with its emphasis on "wellness," the lack of clarity in its definition of well-being and wellness, its implicit reliance on a deficit model in assessing and providing services for refugee populations, and the lack of significant empirical support to back up its programs constitute real weaknesses.

One of the main challenges thus far in addressing the needs of the victims of ethnopolitical violence has been that "a credible paradigm for the identification, treatment, and prevention of the mental health sequelae of refugee and civilian violence has not been forthcoming" (Mollica et al. p. 158; Jayawickreme et al. 2013). In addressing this challenge, the field of positive psychology has the potential to provide a paradigm within which many remaining questions in refugee mental health research can be explored. In this section, we outline how the existing work, including our own research into posttraumatic growth can help to inform psychosocial interventions among populations affected by ethnopolitical conflict.

Interventions that target the cognitive, behavioral, and social variables related to well-being are most effective (Lent 2004; Locke and Latham 1990), since these variables can be conceptualized as acquirable skill sets and environmental resources as opposed to innate and inflexible temperamental qualities (for a similar perspective on "skills", see Tough 2016). Of note, this was especially the case when

these resources were congruent with valuable personal goals (Diener and Fujita 1995). Of relevance to this discussion, we, along with our colleagues recently investigated the extent to which individual differences in one particular goal mechanism—*personal growth initiative* (Robitschek 1998)—were associated with lower levels of functional impairment among a population of genocide survivors in Rwanda (Blackie et al. 2014). The personal growth initiative scale measures a set of cognitive and behavioral skills that center on an individual's own conscious desire to develop as a person as well as confidence in their ability to set goals that enable such personal growth (Robitschek 1998; Weigold et al. 2013). One possible interpretation here is that personal growth initiative is a growth mindset necessary for posttraumatic growth. In support of our hypothesis, we found that individuals high in personal growth initiative reported lower levels of functional impairment in their daily lives, even when controlling for symptoms of depression, PTSD, age, gender, and location in our analysis; factors that had been identified by an earlier study to increase PTSD symptoms in Rwandan genocide survivors (Munyandamutsa et al. 2012). Our study suggests that personal growth initiative may constitute an important set of personal control beliefs for facilitating adaptive functioning in the aftermath of ethnopolitical war and as such might have practical applications for the development of intervention programs (at least for that specific population). Specifically, our results, although preliminary, suggest that individuals might be able to respond flexibly to the situation by changing their mindset and behavior to alleviate functional impairment in daily activities. Thus, interventions that can teach these skills to individuals might be an effective means through which they alleviate impairment and promote well-being (Fleeson 2001; Fleeson et al. 2002). However, while our results are promising, we should at this point remain cautiously optimistic. The results would need to be replicated in this population and other refugee samples before an intervention could be implemented. Additionally, our study was conducted 15 years post-genocide and even though many of the genocide survivors in our sample still exceeded the questionnaire cutoff criteria for clinically significant PTSD and depression, it is feasible that this type of intervention would be more effective when individuals' social, physical, and emotional needs have been first addressed with prior interventions.

It should be clear by this point that posttraumatic growth research has great relevance for refugee mental health, given that this work focuses on how individuals deal with past, present, or upcoming stressors, compensate for or accept the harm caused by the stressors, derive meaning from those experiences and, in some instances, achieve personal growth (Schwarzer and Knoll 2003). In support of this claim, Powell et al. (2003) found that posttraumatic growth was reported by former displaced people and refugees living in the former Yugoslavia who had been exposed to severe trauma during the war of 1991–1995, but the mean levels of posttraumatic growth were much lower compared to previous studies with Western nonrefugee samples. Furthermore, the factor structure of the Posttraumatic Growth Inventory (Tedeschi and Calhoun 1996) was substantially different from that of the original instrument, with only three instead of five factors being identified: *change in philosophy of life*, *relating to others*, and *changes in self/positive life attitude.* Thus,

although the concept of posttraumatic growth might be relevant to non-Western samples that have suffered severe and repeated episodes of trauma related to ethnopolitical warfare, it is possible that the expression of posttraumatic growth may differ across cultures. With regard to developing an empirically grounded typology and gaining an appropriately accurate cultural understanding of posttraumatic growth, psychologists should be open to using qualitative methods, especially in the initial assessment of refugee populations. Given how little we know about refugee well-being (let alone posttraumatic growth), adopting a "bottom-up" approach and listening to the refugees first before making any claims about their mental health seem to be the most prudent first step. As King (2004) notes, qualitative data offers psychologists the opportunity to answer many questions at once, gain a vivid understanding of human experience, and lends itself to multiple analyses.

In a recent publication, we, along with some of our other colleagues drew upon testimonial data from survivors of the 1994 genocide in Rwanda to analyze how posttraumatic growth was experienced in this context (Blackie et al., in press). Our analysis was based on a corpus of 32 oral testimonies retrieved through our research collaboration with the Genocide Archive Rwanda based in Kigali, Rwanda. Archive staff members collected the interviews during 2004–2011 and survivors gave their full written consent for their testimonies to be stored in the archive and accessed by staff, educators, and researchers. The interviews were divided into three sections: before, during, and after the 1994 genocide. Our analysis employed an open-coding method as recommended in similar research by Jayawickreme et al. (2012) in which the testimonies were first examined individually line-by-line to identify tentative themes of posttraumatic growth. Afterward, we undertook a thematic analysis based on the responses recorded from all the testimonies to identify the master themes of posttraumatic growth in this context. Our analysis identified three themes that were not previously contained in any existing published questionnaires, such as the posttraumatic growth inventory (see Tedeschi and Calhoun 1996). The themes were as follows: empathy, wisdom, and forgiveness. Specifically, survivors reported feeling more connected and supported by fellow survivors (empathy), they recognized the need to ensure that their grievances and distrust were not transferred to the younger generation to prevent further conflict between the two groups (wisdom), and some survivors demonstrated a remarkable willingness to forgive the perpetrators who had harmed them (forgiveness). These manifestations of posttraumatic growth are therefore culturally specific and represent adaptive responses to the unique experience of survivors of the genocide in Rwanda.

## Toward an Integrative Approach to Refugee Mental Health

Research into posttraumatic growth and related concepts in positive psychology therefore can address some of the problems created through the deficit approach to refugee mental health. However, the psychosocial approaches discussed earlier go beyond psychological well-being to state that an individual's well-being and

physical health is tied to their unique social and political environment. Indeed, research by Mollica et al. (2002) found that among Cambodian refugees, positive work status was a protective factor against major depression, and religious practices were a strong protective factor against PTSD. The link between religious practices and reduced emotional distress has also been noted among Bhutanese refugee in Nepal (Shrestha et al. 1998). Thus, a fully comprehensive approach to refugee mental health would therefore result from the integration of psychosocial approaches and positive psychology.

The challenge is developing (or finding) integrative models that can account for all these different factors and issues. However, we believe a model put forward by Lent (2004) shows promise in this domain. Lent (2004) has presented an active-agent coping model of restorative well-being through which well-being is restored, and the likelihood of positive adaptation and growth maximized, following the experience of extreme stress (Jayawickreme et al. 2013). Key variables here would include personality (such as trait affectivity, extraversion, and neuroticism), cognitive and behavioral coping strategies involving mastery and meaning, coping self-efficacy, and social support and resources. Such a model represents a good starting point for a more specific conception of refugee mental health. That said, we also note important alternative models by Miller and Rasmussen (2010), and Hinton and Good (2009).

To summarize this model, individuals react to a negative event by appraising its severity and their own coping efficacy. This reaction is mediated by personality variables such as extraversion or dispositional optimism (Carver and Scheier 2002), as well as by environmental and social support, such as interventions, therapy, or other activities associated with coping (e.g., praying). These factors in turn mobilize a wide range of coping strategies, such as positive reappraisal of the event (a form of benefit finding or secondary control; Stagnaro et al., in press; Helzer and Jayawickreme 2015). Such coping strategies can have a positive impact on an individual's coping efficacy as well as the problem resolution process. In addition, the perceived capability to manage domain-specific stressors or obstacles—coping efficacy—is also impacted by environmental and social resources. This, in turn, can facilitate use of more active coping and support-seeking methods (e.g., persisting at coping efforts despite setbacks—a form of primary control; Rothbaum et al. 1982). Both forms of coping have the potential to lead to well-being (Helzer and Jayawickreme 2015).

We note that one factor that should be considered when developing models to account for refugee mental health is cultural differences. Given that much of the positive psychology research on the constructs discussed in earlier sections is founded upon research by Western psychologists (on a mostly affluent undergraduate population), it is likely that this model may have limited value to other (more collectivist) cultures. However, Lent (2004) notes that some of the processes described in the model above may be universal to a degree, although the nature or utility of particular variables within each model may be somewhat culture-specific. For example, although goal setting and pursuit have been identified as basic human processes, the content of people's goals (seeking self-expression vs. relational

harmony), the degree to which goals are self versus collectively set, and the resources available for goal pursuit are all affected by culture. Similarly, the relevance of particular personality factors such as internal versus external locus of control (Roesch et al. 2006) and coping methods (mastery vs. meaning) to well-being would all be affected by cultural differences. Despite the fact that psychological resources such as optimism, personal control, and a sense of meaning have been shown to correlate with happiness (Seligman 1998; Taylor 1989), and autonomy, competence, relatedness, and self-esteem have been identified as psychological needs fundamental to a satisfying life (Sheldon et al. 2001), another consistent finding in the well-being literature is that the characteristics and resources valued by societies also correlate with happiness (Lyubomirsky et al. 2005). This means that conceptions of wellness can vary by culture, as culture is potentially a major force constructing individuals' understanding of happiness and consequently their subjective experience of happiness (Lu and Gilmour 2004).

This question of cultural variation is especially important with regard to refugee well-being, given the wide cultural origins of different refugee populations around the world. Understanding how different refugee populations conceptualize happiness and well-being, and which resources they associate with well-being, is important for understanding the coping mechanisms individuals use in times of war and conflict. When considering assessments of mental health and interventions designed to improve well-being, it becomes clear that a number of factors need to be taken into account:

1. Understanding the values that different refugee populations espouse, and how individuals' goals are culturally determined;
2. Identifying what constitutes "well-being" and "growth" in their perspective—a task that relatively few organizations working with refugees undertake (Hoeing 2004);
3. Assessing existing instruments of mental health for their suitability in assessing the needs of the target population.

Paying careful attention to the refugee community can have another positive, if unrelated result. Many refugees are wary and suspicious of government agencies for their lack of interest in the actualities on the ground, as Hoeing (2004) has pointed out, and paying attention to the specifics of the situation may have the effect of improving the *effectiveness* of the psychosocial interventions provided, given that the refugees would feel that the intervention is not a "foreign" import, but instead has been developed with their specific needs in mind. In a sense, the efficacy versus effectiveness distinction plays out here: even if an intervention has been shown to be effective empirically, insufficient attention to the specifics of the context may serve to blunt its effectiveness.

In summary, a growth-focused approach to understanding how individuals endure, survive, and potentially grow from different forms of adversity can lead to new research questions and better care for people who are coming to terms with their new lives. The model proposed by Lent (2004) in particular affords a number

of exciting research questions that can lead to important interventions that can be of great benefit to counselors in the field. However, having made the case that a growth-focused approach does have great potential value (at least from the vantage point of our own prior work), we still need greater clarity about the nature of posttraumatic growth.

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# Chapter 7
# Conclusion: Posttraumatic Growth: A Worthy Idea Poorly Studied

We conclude this exploration with some specific recommendations that we believe will improve the quality of research being done on posttraumatic growth. We are in the process of implementing some of these insights into our own research program, and although this list is not meant to be exhaustive, it includes many exciting questions concerning the nature of posttraumatic growth, the applicability of the research, and the importance of good research methods for those researchers who are willing to step up to the challenge.

## Highlight the Unique Limitations of Retrospective Self-perceived Measures of Posttraumatic Growth

This bears mentioning repeatedly. In a recently commentary, Tedeschi et al. (2014) argued that their measure—the posttraumatic growth inventory—is in fact an accurate measure of posttraumatic growth and provided four reasons for their claim. These four reasons were that survivors of traumatic and adverse life events can accurately describe their experience of posttraumatic growth, spontaneously report such growth, other people corroborate these self-reports, such reports are unrelated to measures of social desirability, and they tend to report positive and negative changes concurrently. We note that our own work on corroborating reports of the Posttraumatic Growth Inventory (Blackie et al. 2014) does indeed lend credence to the idea that the posttraumatic growth inventory may be in fact capturing a real phenomenon. However, as we have noted elsewhere (Blackie and Jayawickreme 2014), none of these facts lead to the conclusion that the beliefs of these survivors are accurate, and such findings on their own cannot form the foundation for the robust science of posttraumatic growth. To summarize; survivors did report posttraumatic growth spontaneously, yet this arguably only shows that they believe they have changed, and does not rule out the possibility that their reports of growth



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merely reflect positive reappraisal strategies. With regard to corroboration, it is possible that the informant is susceptible to the same biases as the survivor, and reports seeing changes because, for example, she wants to believe her spouse is recovering better than should be expected (although see Blackie et al. 2014). With regard to social desirability, it is unlikely that participants are trying to deceive researchers, given their willingness to also report the pain they are experiencing, but pervasive cultural narrative about the importance of triumphing over adversity are ubiquitous in Western culture, and can influence reporting. Most problematic of all, in our view, is the fact that Posttraumatic Growth Inventory (PTGI), by asking participants to *attribute the proportion of growth they believed they experienced to the trauma*, requires people to provide the type of insight into their psychological processes that they are unable to provide (Nisbett and Wilson 1977). Ideally, researchers interested in posttraumatic growth as positive personality change would move away from using the (PTGI), and toward current-standing measures of the posttraumatic growth-relevant dimensions (e.g., Frazier et al. 2009).

## Examine Situational Contingencies of Daily Posttraumatic Growth

In the cases where real posttraumatic growth occurs, (Fleeson 2014; Frazier et al. 2014), such growth may occur, at least in part, because of changes in situations that one experiences following adversity. Jones et al. (2014) notes the example of a how a bereaved parent may experience a change in their daily situations that are a continuous reminder of the recent loss of a child, and as a result these situations may eventually facilitate posttraumatic growth. The parent may seek out situations that offer social support more frequently, thereby strengthening his or her social relationships. While the example given by Jones et al. (2014) applies well to how individuals adapt to single traumatic events, the types of adversity experienced by people are not one-shot events, but are instead chronic in nature (for example, the aftermath of ethno-political warfare, such as lack of sanitation facilities and housing following war; Miller and Rasmussen 2014). In other words, the adversity an individual to which an individual is responding may consists of *a series of situations* or an *environment* (Blackie and Jayawickreme 2015). The nature of these situations—and how individuals respond to such situations—may in part determine whether posttraumatic growth ultimately occurs. Future research can examine these situational contingencies of posttraumatic growth. Specifically, we are particularly interested in understanding the *situational contingencies* that promote intellectual humility in adults as their attitudes and beliefs are likely to be established, stable, and resistant to change. We note here that a *contingency* is defined as a systematic relationship between a given state that an individual enacts and a given characteristic of the situation (Fleeson 2007). For example, when a student experiences an

increase in the trait of open-mindedness while watching and engaging with a stimulating teacher, there is a contingency of the open-minded state on the level of intellectual engagement in the situation. Such contingencies do not refer to the trait of open-mindedness itself or to individual differences in open-mindedness. *Instead, they refer to changes in the state, that is, to changes in the extent to which the affective, behavioral, and cognitive content of the trait of open-mindedness describes the way the individual is being at the moment.* For example, the question is whether intellectual engaging situations increase the extent to which individuals can be described as open-minded while they are in the situation, and the question is not about how individual differences in open-mindedness are revealed in such situations (following Fleeson 2007).

## Achieve Greater Clarity of the Role of Clinical Trauma Versus Adversity in Posttraumatic Growth

No reliable evidence exists for the "shattered assumptions" notion behind Tedeschi and Calhoun's theory of posttraumatic growth. Seery and Kondrak (2014) have argued that traumas are best conceptualized as severe stressors that are not qualitatively distinct from more "everyday" adversity. It is possible, however, that trauma may be unique from other stressors insofar as it is irreversible and a tangible reminder of mortality (Blackie and Jayawickreme 2014). The irreversible nature of some tragic circumstances may push an individual to make enduring changes to their goals and priorities in life. Additionally, this may be a characteristic unique to traumatic situations based on experimental research which has demonstrated that even subtle mortality manipulations result in shifts to participants' thoughts, feelings, and goals (Cozzolino et al. 2014; Cozzolino and Blackie 2013; Vail et al. 2012; Blackie and Cozzolino 2011). Future research should examine the unique impact of "existential" traumas on specific dimensions relevant to posttraumatic growth.

## Study Posttraumatic Growth as a Developmental Phenomenon and Focus of a Broader Set of "Character Skills"

We hope that greater attention to the study of the relationship between adversity and wisdom will promote more longitudinal research. The study of posttraumatic growth as a developmental phenomenon has been hampered by the paucity of such research studies. This research will hopefully be in the position to address the following questions:

- Do people select situations that cause adversity to some extent? (as opposed to life events being *completely* random—e.g., Navy SEALs or Army Rangers)
- Is anticipatory change prior to the experience of adversity possible? (that is, similar to well-being prior to childbirth)
- Is personality change following adversity linear and continuous, or nonlinear and discontinuous (as Seery et al. 2010 found)?
- Is personality change following adversity reversible? Is most personality change simply fleeting?
- Can the experience of adversity in fact protect you from worse outcomes (i.e., further personality deterioration in the absence of challenge)
- Do single major life events lead to personality growth over time? Or does personality growth occur in response to multiple minor events? Non-normative events (life events that do not happen at a socially normative moment)?

Addressing these questions will hopefully have the additional effect of focusing on other traits and "skills" currently not widely studied as dimensions relevant to posttraumatic growth. While most research has focused on the five dimensions assessed by the Posttraumatic Growth Inventory, the list of constructs in Table 7.1 shows that a wide variety of dimensions has been seen by different researchers as being potentially relevant. Future research should take both multidimensional (Baltes 1987) and theoretical (e.g., Joseph and Linley 2005) approaches in specifying relevant dimensions to focus on, which also pay attention to cultural variation (as noted in the previous chapter).

## Obtain Measurements Over and Above Self-reports When Conducting Posttraumatic Growth Research

Note here that by "self-report," we mean all types of self-report measures not just the retrospective self-perceived measured currently favored by many posttraumatic growth researchers. One significant challenge of using self-reports to assess posttraumatic growth is that they can be biased by both strong cultural expectations as well as personal motivations to report growth. As a result, participants' answers can be influenced by demand characteristics, and this is especially likely if they are aware that the study is focusing on posttraumatic growth. One possible solution to this challenge is to use more objective assessments of behavior, such as the Electronically Activated Recorder (EAR; Bollich et al. 2015), which may be able to successfully track behavior and emotion associated with posttraumatic growth (e.g., gratitude, positive affect, warm relational interactions, etc.; Blackie et al. 2016).

It may also be worth obtaining physiological assessments of health in light of recent research highlighting the fact that trajectories of psychosocial adjustment in resilient adolescents under conditions of high SES risk have been associated with

**Table 7.1** Different dimensions of posttraumatic growth (identified by author/scale)

| Components | Authors/scales |
|---|---|
| Greater life appreciation | T&C, Helg, SLQ, TS, BFS, CIO |
| Change in priorities/new possibilities | T&C, J&L, Helg, SLQ, BFS |
| Enhanced relationships | T&C, J&L, Hob, Helg, SLQ, TS, BFS, SRGS, CIO, PWB |
| Empathy/compassion | T&C, J&L, Staub, TS, PBS |
| Personal strength | T&C, Hob, TS, PBS, SRGS, PWB |
| Spiritual development | T&C, Helg, SLQ, TS, PBS |
| Wisdom | T&C, J&L |
| Ability to recognize that both pos. and neg. life events have meaning/purpose | T&C, BFS, PWB |
| Self-knowledge | J&L, Hob, P&M, SLQ, PBS, PWB |
| Action | Hob, SLQ |
| Distress: decrease in symptomology | Hob |
| Positive narrative development | P&M, Staub, TS |
| Understanding cultural implications | P&M, BFS |
| Altruism | Staub, SLQ, BFS |
| Health/lifestyle changes | Helg, PBS |
| Community focus | Helg, SLQ, BFS, PBS, CIO |
| Positive and negative emotional changes | Helg, SLQ, SRGS |
| Benefit-finding | Helg, BFS |
| Positive personality change | SLQ |
| General knowledge | SLQ |
| Patience | TS, CIO |
| Family appreciation | TS, BFS, PBS |
| Coping skills | SRGS |
| Self-acceptance | PWB |
| Key | |
| SLQ | Silver Lining Scale (Sodergren and Hyland 2000) |
| TS | Thriving Scale (Abraido-Lanza et al. 1998) |
| BFS | Benefit Finding Scale (Antoni et al. 2001) |
| CIO | Change in Outlook Scale (Joseph et al. 1993) |
| PWB | Psychological Well-Being Scale (Joseph et al. 2012) |
| SRGS | Stress-Related Growth Scale (Park et al. 1996) |
| PBS | Perceived Benefits Scale (McMillen and Fisher 1998) |

(continued)

**Table 7.1** (continued)

| Components | Authors/scales |
|---|---|
| T&C | Tedeschi & Calhoun (Tedeschi and Calhoun 1996) |
| Helg | Helgeson (Helgeson et al. 2006) |
| J&L | Joseph & Linley (Joseph and Linley 2005) |
| Hob | Hobfoll (Hobfoll et al. 2007) |

poorer physiological health (Brody et al. 2013). In other words, seeing posttraumatic growth simply as a psychological phenomenon may fail to account for key physiological processes and the long-term impact of physiological depreciation on the trajectory of psychosocial adjustment, which in turn may have long-term implications.

## Develop Evidence-Based Interventions That Enable Survivors of Adversity to Recover Successful from Their Experiences

Ultimately, such research can be of great benefit to communities recovering from significant adversity. Our discussions with heads of not-for-profit organizations, counselor, and interviewers over the course of our research in Rwanda, and Sri Lanka (as well as among low-income communities in the southeastern United States) makes it clear that a growth-focused approach has the potential to provide additional tools that can be of great benefit for communities struggling to come to terms with long-term adversity. Such communities need to marshal all the resources they can, and the potential tools based on a solid science of posttraumatic growth, which claims with validity that certain strengths and skills can in fact be focused in the wake of adversity and can contribute to well-being, may constitute one set of important resources.

One very preliminary example of such work was the work we did in Rwanda on personal control beliefs (as assessed by personal growth initiative, or PGI), briefly discussed in Chap. 2 (Blackie et al. 2014). Such work does address an important and generally overlooked issue in the literature regarding the natural "character strengths" and skills that individuals can use to cope with adverse and traumatic situations. The findings of this one study seems to support the view that that individuals flexibly respond to the demands of the situation by changing their mindset and behavior to promote outcomes that reduce distress and promote well-being (Fleeson 2001; Fleeson et al. 2002). Our study has implications for the development of targeted intervention programs that are designed specifically to enhance the individual's well-being by strengthening their own control beliefs (see

Blackie et al. 2014; Seligman and Csikszentmihalyi 2000). Thoen and Robitschek (2013) designed an intervention to increase individuals' personal control beliefs, as assessed by the PGI. This intervention was found to be successful at increasing participants' level of PGI when compared to control conditions. Although this intervention is new and further research is needed to determine the effectiveness of the intervention in enhancing well-being related outcomes, it might prove to be a promising program for enhancing an individual's own natural inclinations and desire to strive for self-improvement. Our results suggest that such an intervention may be successful in our target sample.

In summary, we believe that our critical reassessment has shown that research on posttraumatic growth has been hampered by significant theoretical and measurement limitations. This is an exciting field, with intuitively appealing questions, and exciting hypotheses waiting to be tested and replicated, and we hope that our discussion has set the stage for some possible paths forward. We both await the next chapter on this topic with great excitement.

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