

## 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.

## 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 others 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 on 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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