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Abstract

Although post-traumatic growth accounts argue that the person's character has been transformed, the current research has not clearly specified the distinct character virtues that may change following adversity. Future research should seek to clarify the personality traits, skills, and character virtues that characterize wisdom following adversity, and the different types of adversity that may result in the development of 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. We present humility as one example of a virtue related to wisdom that may develop in response to specific types of adversity.

Does Adversity Make Us Wiser Than Before? Addressing A Foundational Question

The belief that we can learn and grow from our misfortunes resonates with people, and is a central theme in works of literature, philosophy, and religion. St. Paul, for example, claimed that "suffering produces endurance, and endurance produces character, and character produces hope" (Romans 5: 3-4). Thus, 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, and psychologists have further demonstrated that adversity can lead to the development of "post-traumatic growth" – positive psychological change experienced as a result of the struggle with highly challenging life circumstances (Tedeschi & Calhoun, 2004). 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 recent research has investigated the veracity of this belief (Jayawickreme & Blackie, 2014) 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 post-traumatic growth, which are problematic in many respects (Fleeson, 2014).

Building on what we believe was important foundational work, our next goal is to understand *whether* and how changes in response to adversity translates into tangible benefits in an individual's life in terms long-term development of the traits and skills characteristic of 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 post-traumatic growth has not clearly specified the distinct personality dimensions and character virtues that may change following experiences of significant adversity. In this brief paper, we investigate the intuitive claim that confronting adversity can make us *wiser* by examining the extent to which people actually do gain the traits, skills, and virtues characteristic of the wise person over time. This is an important question to investigate, as the cultivation of these wise skills may facilitate a deeper understanding of ultimate concerns, an increased desire to search for the sacred, 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.

Examining The *Real* Benefits of Hardship: Limited Insights from Psychology?[1]

Since Tedeschi and Calhoun's (1996) initial scale-validation paper on post-traumatic growth, there has been a marked interest in the study of the construct and the presumed associated mental and physical health benefits of this process (Park, 2004). The construct of post-traumatic growth has also attracted a considerable degree of attention in the last decade, especially with increased interest in the topic following the advent of positive psychology in the early 2000s (Coyne & Tennen, 2010; Tennen & Affleck, 2009). Current research indicates that

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[1] Portions of this section are adapted from Jayawickreme & Blackie (2014)

post-traumatic growth is widely reported; as many as 70% of survivors of various forms of trauma report experiencing some positive change in at least one domain of life (Linley & Joseph, 2004). Explanations for post-traumatic growth highlight the possible transformational role that the experienced trauma can play in fostering 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. Post-traumatic 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 (2005) organismic valuing theory posits that trauma can cause changes in "issues of meaning, personality schemas, and relationships" (p. 33). Many books aimed at clinical and lay audiences have heralded this growing literature as offering new insight into how people can adapt successfully in the aftermath of trauma and adversity (e.g. Calhoun & Tedeschi, 2012; Joseph, 2011; Werdel & Wicks, 2012)

However, this attention has also been accompanied by controversy. For a topic that has generated much in the way of research interest, public attention and prescriptions for interventions to increase growth in the wake of trauma (Tennen & Affleck, 2009), the questions of what post-traumatic growth actually is and what retrospective reports of post-traumatic growth reflect remain undefined and murky. Indeed, this lack of attention to methodological limitations and over-interpretation of extant findings in current research on post-traumatic growth has led some researchers to question the scientific validity of the construct (Jayawickreme & Blackie, 2014). In fact, some critical readings of the literature have gone so far as to dismiss the empirical support for post-traumatic growth altogether (Coyne & Tennen, 2009).

What do we know for certain about post-traumatic growth given the current status of the literature? First, people readily report experiencing it following traumatic life events (Joseph &

Linley, 2005), at least when asked to think about it directly. For example, as discussed earlier, research has demonstrated that self-reports of post-traumatic growth are fairly common – ranging from 58-83% among survivors of a range of different traumas (Sears et al., 2003; McMillen et al., 1997; Affeck et al., 1991; Affleck et al., 1987). This is not trivial – if people believe they have changed, this phenomenon is then worthy of greater study. Although the work to date has not spoken to whether people have truly changed as a result of their experiences, it has demonstrated that the *belief* that one has experienced positive personality change is fairly common.

Second, there is evidence from the meta-analysis of cross-sectional studies (Helgeson et al., 2006) and some longitudinal work (Danhauer et al., 2013) that post-traumatic 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, as noted above. Additionally, these adaptive benefits of post-traumatic growth are further supported by the single hallmark prospective longitudinal study in this literature (Frazier et al. 2009), which directly measured students' current-standing on post-traumatic 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 post-traumatic 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, as well as the clinical significance of actual positive personality change.

Third, nascent research investigating the long-term stability of post-traumatic growth as is currently assessed suggests that retrospectively assessed post-traumatic growth may in fact reflect an individual difference trait. Contrary to what Tedeschi and Calhoun's (2004) theory proposes, post-traumatic growth reports have remained stable over time, rather than gradually increasing. For example, Thompson (1985) and Affleck et al. (1987) did not observe significant increases in self-reports of post-traumatic growth either one or eight years following the event. Self-reported retrospective post-traumatic 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 & Kihlstrom, 1987; Bauer & Bonanno, 2001). While this may be interesting to assess in its own right (as we discuss later in this article), it in fact tells us very little about post-traumatic growth understood as positive personality change—that is, post-traumatic growth as it is actually conceptualized theoretically.

Conceptually, post-traumatic growth has been described in terms of positive personality change – for example, Tedeschi and Calhoun (2004) claim that "post-traumatic 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.

We do not underestimate the value of perceived change to the individual. Indeed, as Fraizer et al. (2009) demonstrated, these perceptions of positive change are associated with adaptive coping strategies following trauma, and it is possible that, if followed over a suitable period of time, these beliefs may be the precursors for actual personality change. However, at the current time, we feel that the skeptical researcher is right to doubt whether the current evidence supports the view that reports of post-traumatic growth reflect *actual* positive personality change. We moreover 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, 2012). Our central argument is that post-traumatic growth has been conceptualized in terms of positive personality change by past research (e.g., Park, 2010; Joseph & Linley, 2005; Tedeschi & Calhoun, 2004), but it has not been measured accordingly. If post-traumatic 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 by operatizing appropriate current-standing scales. While post-traumatic growth may not initially be observed as a change in dispositional traits, it instead may be observed in a shift in personality states (Fleeson, 2001) and other levels of personality such as personal concerns (e.g., goals and priorities in life), and life narratives (for a review see McAdams, 1994), which should eventually facilitate increases or decreases in dispositional traits.

If (as theorized) post-traumatic growth captures an enduring shift in how someone thinks, feels, and behaves (Tedeschi & Calhoun, 2004), then scientists should measure it as a change in an individual's personality over time, by operationalizing longitudinal investigations of changes in relevant personality traits. However, in our recent review of the literature (Jayawickreme & Blackie, 2014), we argued that while post-traumatic growth has been conceptualized in terms of positive personality change (Park, 2010; Joseph & Linley, 2005; Tedeschi & Calhoun, 2004), the majority of the research on the topic has only assessed the extent to which the individual believes he/she has changed. There has been limited longitudinal investigation into how people change in response to adversity over time (i.e., whether personality traits relevant to post-traumatic actually increase or decrease over time). Although, we do not disagree that an individual's belief about how he/she has changed is important (and may even be predictive of actual growth over time), we argue that it is also important to measure actual change over time and determine the extent to which the changes in post-traumatic growth traits are related to meaningful changes in the individual's daily behavior (Blackie & Jayawickreme, 2014).

Growth Through Adversity: Asking the Right Questions

Further extending and enriching this argument, the philosopher Christian Miller (2014) responded to our call for interdisciplinary dialogue by asking for clarity on the conceptualization of post-traumatic growth. In addressing Miller's concerns, we (Blackie & Jayawickreme, 2014) agreed that existing definitions of post-traumatic 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 & Affleck, 2002). For example, Miller (2014) argued that a greater perception of meaning and purpose could be defined both as post-traumatic 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 post-traumatic growth as "positive psychological change" (Tedeschi & Calhoun, 2004) is too board 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 "post-traumatic 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.

While many theorists may agree that wisdom is a form of knowledge, they differ with respect to the virtues, skills, and abilities they believe characterize the wise person. Psychologists, for example, have posited that wisdom is characterized by the appropriate deployments of skills that may include self-insight, mastery, empathy, maturity, acceptance, compassion, openness, and worldly knowledge (see for example the Rosewood Report on Wisdom: http://wisdomresearch.org/forums/t/846.aspx#). Far less work has determined which virtues and skills are most likely to result from experiencing adversity. In this regard, one significant challenge is that the causal relationship between different forms of adversity and wisdom has not been clearly articulated theoretically, and moreover no empirical work has directly addressed this relationship. It is unclear whether an increase in wisdom is in fact a tangible positive personality change that directly results from experiencing adversity. For example, does adversity provide the type of wisdom required for living the "good life" or

achieving optimal levels of well-being? Does adversity provide opportunities for unique insights that function as the catalysts for meaningful changes to an individual's personality, goals, and life priorities? What types of adversity lead to wisdom—"major" life events, more "minor" life stressors, or the "minor" life events that must be confronted as a result of the "major" life event? If most people respond to adversity with resilience, as some have argued, then to the extent does adversity actually lead to gains? Are these gains permanent or reversible? How are gains in wisdom sustained? Such a research project would seek to investigate the relationship between adversity and wisdom, as we believe that due to lack of clarity of the questions being asked, the best thinking and scholarship has thus far remained silent on this issue.

Our past work sought to apply scientific rigor to the possibilities that positive changes could follow adversity (Jayawickreme & Blackie, 2014). We believe that the next step is to examine *whether* and *how* adversity is key to the development of a deeper understanding of how individuals gain knowledge of the traits and skills characteristic of wisdom. We believe that future work should not only be able to extend the work into post-traumatic growth started by psychologists, but also allow for empirical examination of an idea that is central to many scholars in philosophy and religion. Such a research program could have the potential to inspire interdisciplinary investigation into the nature of adversarial growth and its adaptive potential to overcoming highly stressful and challenging circumstances.

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 & Helson, 1997). One endeavor that made substantive progress toward clarifying the definition of wisdom was the Rosewood Report on Practical Wisdom, which was drafted following an interdisciplinary meeting of philosophers and psychologists in Hastings, Minnesota in 2010 funded by a grant from the John Templeton Foundation. One theoretical approach to wisdom proposed at this meeting was a psychological capacities model that posits that the attainment of wisdom involves the development of specific psychological capacities over the lifespan (i.e. traits, skills and virtues). What is distinctive about this approach is its focus on the required capacities that the wise person would have enact when making sound judgment. Thus, according to this approach, wisdom is a process that is served by a set of psychological capacities (http://www.mcps.umn.edu/documents/rosewoodreport.pdf). Based on this very promising conceptual approach, our future work aims to identify the specific psychological capacities that encompass the concept of wisdom following significant adversity. Essentially, in this project we 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. 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 an increase in wisdom following adversity more likely for people who already have a necessary set of pre-existing attributes? What are those attributes?

7. Do some forms of adversity "teach" wisdom that leads to the "good" life, while other forms may provide deep insights (the midst of psychological struggle) that are *not necessarily* translated into increased well-being— for example, in the case of Joseph's final words to his brothers after being betrayed by them in the biblical story that "while you intended to do harm to me, God intended it for good"?

As we have discussed, many philosophical, theological, and psychological theories have argued that experiencing adversity can lead to wisdom, but the conditions under which adversity fosters such wisdom and how wisdom following adversity is manifested in an individual's life has yet to be fully conceptualized (or empirically investigated). Our work on wisdom following adversity will start by addressing the theory on post-traumatic growth (Tedeschi & Calhoun, 2004) – "positive psychological change in the aftermath of highly stressful and challenging circumstances" (p. 1). The first aim of our work would be to conceptualize post-traumatic growth

as positive personality change (Jayawickreme & Blackie, 2014) and draw on theoretical and methodological approaches from the field of personality psychology to understand and assess this concept more rigorously. Research into post-traumatic growth has been limited by an over-reliance on retrospective reports of change collected at one point in time (Tennen & Afleck, 2002). We argue that personality change represents an enduring shift in the way people think, feel, and behave following a traumatic event, and therefore the construct needs to be both conceptualized and measured as a developmental process that unfolds over time (Blackie & Jayawickreme, 2014).

In sum, we hope our future work will examine the extent to which one tangible benefit that may be derived from adversity is greater wisdom, and explore how major accounts of the relationship between adversity and wisdom have been discussed in philosophy, theology, and the humanities. We plan to focus on the extent to which these different perspectives share common ground in the definition of wisdom following adversity and the psychological capacities that characterize the wise person, and will use these accounts to expand on the discussion generated by the recent target article in the *European Journal of Personality* (Jayawickreme & Blackie, 2014).

Identifying the "Wise Profile"

In particular, as noted earlier the philosopher Christian Miller (Miller, 2014) raised an important concern about the conceptualization of post-traumatic 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 post-traumatic 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". This change (albeit perhaps adaptive) may reflect an effective coping mechanism. Such theorizing monograph 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.

An Illustrative Example: Humility

One possibility is that experiences of adversity that remind us of our mortality may momentarily humble us – encourage us to recognize our limitations, our place in the world and the connection between others and ourselves (Tangney, 2003). To the extent to which the individual has the motivation to act in concordance with a humble mindset, he/she may be more likely to manifest behaviors associated with humility in their daily behavior (e.g., helpfulness, forgiveness, generosity). As Kesebir (2014) noted, humility relates to 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 towards personal growth (Wayment & Bauer, 2008, p. 611). Thus, we define humility as *willingness to accept the self's limits and its place in the grand scheme of things, accompanied by low levels of self-preoccupation*. An individual high in the trait of humility is capable of tolerating and accepting weaknesses alongside strengths in her personality non-defensively, 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 & Hill, 2012). 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).

Linking Death Reflection and Humility

While individuals vary on the broad dispositional trait of humility, we believe that tangible reminders of our mortality resulting from the experience of adversity may momentarily

humble us (i.e., put us in a humble personality "state"; Fleeson, 2001; Blackie et al., 2014) by making us recognize our limitations, our place in the world, and the connection between others and ourselves. However, the extent to which this process results in enduring changes to our identity (that is, the extent to which these momentary "state" variations are converted into enduring changes) is likely determined by the extent to which the person desires to derive longer-term meaning from their experience and let it change them. Individuals who are high in the motivation to act in concordance with a humble mindset should be more likely to manifest humble virtues in their daily behavior (e.g., helpfulness, forgiveness, generosity), as humility should render the self less vulnerable to threats of which death constitutes a major and perpetually present instance (Kesebir, 2014).

Confronting the inevitable truth – that we will all die – is understandably anxiety-provoking: "…With your heart pounding, it suddenly hits you, as time seems to stand still, that you are literally moments away from dying. The inevitable unknown that was always waiting for you has finally arrived…" (Cozzolino, Staples, Meyers, & Samboceti, 2004). Although past work has mostly focused on investigating the defensive responses that follow from reminders of mortality, our team's research indicates that an awareness of mortality can sometimes result in life-affirming and positive outcomes (Cozzolino & Blackie 2013). Our past experimental research has tested this by employing a death reflection manipulation (Cozzolino et al., 2004) that asks participants to imagine that their life is unexpectedly ended in an apartment fire, followed by open-ended questions that instruct them to reflect on the life they had led up until that point. Consistent with the quiet ego, we have found that death reflection participants were more accepting of the role regrettable and shameful life experiences had played in shaping their current identity compared to the control conditions (Blackie, Cozzolino, & Sedikides, 2014).

Furthermore, in numerous experiments the death reflection manipulation has increased participants' propensity to engage in pro-social and virtuous behavior (Blackie & Cozzolino, 2011; Cozzolino et al., 2004; Frias, Watkins, Webber, & Froh, 2011). One interesting testable question is therefore whether one can cultivate the "state" of humility and its associated virtuous behaviors by situationally priming an explicit awareness of one's own mortality. In other words, future work should test whether similar death reflection manipulations may promote humility in addition to prosocial behavior (and whether humility may in fact mediate the effect of death reflection on prosocial behavior), as well as humility in specific domains (i.e. intellectual humility).

Conclusion

In summary, in defining post-traumatic growth as positive personality change, as opposed to retrospectively assessed beliefs of change (Jayawickreme & Blackie, 2014), we proposed that adversity's positive value may ultimately lie in how such events lead to the development of specific character skills and virtues characteristic of wisdom. Increased humility and intellectual humility likely constitutes one of the most important manifestations of post-traumatic growth given the unique effects adversity may have on this virtue. This is an area ripe for integrative interdisciplinary dialogue between religious scholars, philosophers and psychologists.

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