

Post-traumatic growth, resilience and social-ecological synergies

Clark, Janine Natalya

DOI:

[10.3390/socsci13020104](https://doi.org/10.3390/socsci13020104)

License:

Creative Commons: Attribution (CC BY)

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Clark, JN 2024, 'Post-traumatic growth, resilience and social-ecological synergies: Some reflections from a study on conflict-related sexual violence', *Social Sciences*, vol. 13, no. 2, 104. <https://doi.org/10.3390/socsci13020104>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.



Article

Post-Traumatic Growth, Resilience and Social-Ecological Synergies: Some Reflections from a Study on Conflict-Related Sexual Violence

Janine Natalya Clark

Birmingham Law School, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK; j.n.clark@bham.ac.uk

Abstract: The concept of post-traumatic growth (PTG) continues to generate significant interest, as reflected in the increasing number of studies. This article makes two novel contributions to existing scholarship on PTG. First, it seeks to demonstrate that the common framing of PTG as positive psychological change is too narrow. To do so, it looks to research on resilience and highlights the shift from person-centred understandings of resilience to more relational approaches that situate the concept in the interactions and dynamics between individuals and their social ecologies (environments). The article's core argument is that there are social-ecological synergies between resilience and PTG, which, in turn, are highly relevant to how we think about and study growth. Second, the article empirically develops this argument by drawing on a larger study involving victims-/survivors of conflict-related sexual violence (CRSV) in Bosnia-Herzegovina, Colombia and Uganda. It is important to note in this regard that there are no major studies of PTG focused on CRSV, just as scholarship on CRSV has given little attention to PTG (or indeed resilience).

Keywords: conflict-related sexual violence; post-traumatic growth; resilience; social ecologies



Citation: Clark, Janine Natalya. 2024. Post-Traumatic Growth, Resilience and Social-Ecological Synergies: Some Reflections from a Study on Conflict-Related Sexual Violence. *Social Sciences* 13: 104. <https://doi.org/10.3390/socsci13020104>

Academic Editor: Belinda Winder

Received: 10 January 2024

Revised: 4 February 2024

Accepted: 6 February 2024

Published: 8 February 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Scholarship focused on the concept of post-traumatic growth (PTG) has “exploded in the last 15 years” (Jayawickreme and Infurna 2021, p. 5). According to Tedeschi and Calhoun (2004a), PTG refers to “positive psychological change experienced as a result of the struggle with highly challenging life circumstances” (p. 1). Although this understanding of PTG is widely accepted, this article aims to demonstrate that it is too narrow and accordingly proposes an alternative way of thinking about PTG. In so doing, it looks directly to research on resilience. Significantly, this rich corpus of literature remains heavily under-explored in discussions about PTG. It is common for scholars to simply stress the differences between the two concepts (see, e.g., Saltzman et al. 2018, p. 427; Westphal and Bonanno 2007, p. 421).

There has been a growing shift within resilience research away from person-centred framings towards more relational theorisations that locate resilience in the interactions and dynamics between individuals and their social ecologies (environments). As Ungar (2011) underscores, resilience is not something that we have. Rather, it is “a process that families, schools, communities and governments facilitate” (p. 1, emphasis in the original; see also Leite et al. 2019; Masten 2021; Theron and van Breda 2021). This article's central argument is that social-ecological approaches to resilience are also highly relevant to PTG. More specifically, it seeks to show that important social-ecological synergies between resilience and PTG can expand how we think about the latter.

Alongside its conceptual arguments, this article also makes a novel empirical contribution to existing scholarship on PTG. While there is growing research on PTG among war-affected populations (see, e.g., Bechara et al. 2021; Shamia et al. 2015; Şimşir et al. 2021), to date such research has almost entirely overlooked those who have suffered conflict-related sexual violence (CRSV). Similarly, scholarship on CRSV has given little attention to

PTG, and the rare studies that have done so have approached the concept uncritically (see, e.g., [Anderson et al. 2019](#); [Kuwert et al. 2014](#)). This article draws on a mixed-methods study, led by the author and completed in February 2023, and in particular on a qualitative dataset of 63 semi-structured interviews with victims-/survivors¹ of CRSV in Bosnia-Herzegovina (BiH), Colombia and Uganda. While the interview guide did not include any actual questions about PTG, “growth” was one of the themes that organically emerged. The article utilises the data to empirically expand on its conceptual arguments and to demonstrate the significance of individuals’ wider social ecologies in supporting and facilitating elements of growth.

The first section gives an overview of PTG and discusses some common critiques of the concept. The second section explores the relationship between PTG and resilience, which is pivotal to the article’s argument that both concepts have important social-ecological dimensions that have yet to be substantively explored and analysed. It also problematises the common framing of resilience within PTG scholarship as a process of “bouncing back”. The third section introduces the dataset on which the article draws, outlining the methodology used and the correspondence between the research design and data analysis. The final two sections empirically develop the proposition that growth is more than just a psychological process. PTG, fundamentally, is a social-ecological process.

2. An Overview of PTG and Some Critiques

2.1. *The Basic Concept*

The concept of PTG accentuates that traumatic experiences can create possibilities for growth and positive psychological change. [Calhoun and Tedeschi \(2006, p. 5\)](#)—who first coined the term PTG—have identified three broad domains of growth relating, respectively, to perceptions of self, relationships with others and philosophy of life. They have also stressed, however, that PTG does not in any way diminish or detract from an individual’s trauma,² and indeed, growth often coexists with ongoing personal distress ([Tedeschi and Calhoun 2004a, p. 2.](#)).

Their explanation for this coexistence is that PTG does not result from traumatic events themselves, just as trauma does not ([Caruth 1995, p. 4](#)). Rather, it is “the individual’s struggle with the new reality in the aftermath of trauma that is crucial in determining the extent to which posttraumatic growth occurs” ([Tedeschi and Calhoun 2004a, p. 5](#)). They link individual struggles, in turn, with what they call “rumination”. Fundamentally, one of the markers of highly stressful and traumatic events is that they disrupt and undermine a person’s “assumptive world” ([Calhoun and Tedeschi 2006, p. 7](#); [Tedeschi et al. 2007, p. 398](#)).³ As efforts are made to make sense of what happened, the individual engages in a process of reflection and rumination, and “event related rumination that is not exclusively negative may be predictive of posttraumatic growth” ([Calhoun et al. 2000, p. 522](#)).

Existing studies of PTG have focused, inter alia, on war refugees ([Kroo and Nagy 2011](#)), earthquake survivors ([Xu and Liao 2011](#)), bereaved parents ([Engelkemeyer and Marwit 2008](#)) and police officers ([Leppma et al. 2018](#)). The COVID-19 pandemic has also contributed to new research on the topic (see, e.g., [Chen et al. 2022](#); [Tu et al. 2023](#); [Vazquez et al. 2021](#)). Growing interest in PTG arguably reflects, in part, the fact that it has intuitive appeal; there is something intrinsically uplifting in the idea that “the horror of psychological trauma might have a silver lining; that people might benefit from the experience or even grow toward more optimal functioning” ([Westphal and Bonanno 2007, p. 418](#)). PTG is not, however, an unproblematic concept. While it is beyond the scope of this article to discuss in depth the various critiques of it, it is important to note a few of the main criticisms—not least because the social-ecological approach that this research proposes can go some way to help address them.

2.2. *Some Common Critiques of PTG*

One of the biggest issues with PTG relates to how the concept is measured. Studies most frequently use [Tedeschi and Calhoun’s \(1996\)](#) Posttraumatic Growth Inventory (PTGI)

or the Stress-Related Growth Scale (SRGS; Park et al. 1996), both of which rely heavily on retrospective self-reported growth. As Park and Lechner (2014, p. 54) underline, however, there are notable problems with asking individuals to try and remember how they were *prior* to experiencing a challenging or traumatic life event. Putting them through this process of “mental gymnastics” (Infurna et al. 2022, p. 577), for example, raises significant issues regarding accuracy of recall (Infurna and Jayawickreme 2019, p. 154).

Important questions pertaining to interpretation, moreover, arise when individuals give positive answers to statements about growth. In short, there are many potential reasons why someone might claim, or believe, that they have experienced “growth” (Boals et al. 2023, p. 196; Frazier and Kaler 2006, p. 859). Additionally, context and dominant cultural scripts may strongly influence an individual’s answers (a good illustration of how social ecologies matter for PTG). This is a topic for future research (Jayawickreme et al. 2021, p. 153), but the central point is that individuals might feel under pressure, because of their cultural environment and the norms it prescribes, to deal with trauma and adversity in a “socially acceptable” way.⁴ Linley and Joseph (2004) accordingly ask: “to what extent is adversarial growth [they use this term rather than PTG] simply the adherence to some cultural script?” (p. 19).⁵ For their part, Maercker and Zoellner (2004)—whose Janus face model distinguishes between “constructive growth” and “illusory growth” (see also Boals and Liu 2020; Pat-Horenczyk et al. 2015)—draw attention to a “self-deceptive side” of PTG associated with avoidance, denial or wishful thinking (p. 43).⁶

Some scholars have sought to explore PTG in ways that reduce reliance on self-reported growth. Weiss’ (2002) study of women diagnosed with breast cancer, as one example, included husbands as a way of corroborating the women’s self-reported growth. The study involved 41 couples. Weiss’ approach, however—and her argument that the husbands’ confirmation lent credibility to the women’s claims of transformation and growth (Weiss 2002, p. 79)—has also been challenged. As Park and Lechner (2014) ask, “Does a high degree of correlation between self-reports and other reports indicate true growth, or is it simply an artifact of participants’ reports to informants about their positive changes?” (p. 55). Rather than seeking to corroborate self-perceived PTG, Hobfoll et al. (2007, p. 356) have focused on how such growth is translated into action.⁷ Interestingly, however, their research—focused on the Al Aqsa Intifada (2000–2004) by Palestinians—found a relationship between PTG, authoritarianism and extreme political violence, thereby adding important nuance to predominantly positive framings of PTG (Hobfoll et al. 2007, p. 352).

Indeed, and linked to this last point, another criticism of PTG is that it can give a skewed picture of an individual’s experiences due to the way in which statements purporting to measure the concept are phrased. Crucially, scales such as the PTGI and SRGS do not give respondents an opportunity to report on any negative changes that might have occurred (Frazier et al. 2001, p. 1049; Linley and Joseph 2004, p. 18). The use of positively worded unipolar response scales, moreover, can contribute to fostering the illusory growth that Maercker and Zoellner (2004) have underlined. Boals and Schuler (2018) have developed a revised version of the SRGS precisely to address these issues (see also Boals et al. 2023). In contrast to the SRGS and the PTGI, the revised SRGS (SRGS-R) uses neutral wording and a bipolar response scale (ranging from very negative change to very positive change) (Boals and Schuler 2018, p. 192). While few studies to date have used this revised scale, Boals and Schuler’s (2019) research suggests that the SRGS-R “is less prone (although not altogether immune) to reports of illusory PTG” (p. 245), which is potentially an important step forward.

This article makes its own original contribution to existing scholarship and critiques of PTG. What has encouraged a strong reliance on self-report measures is the dominant framing of PTG as positive psychological change and a related emphasis on personality traits (see, e.g., Blackie et al. 2017; Jayawickreme et al. 2021; Tedeschi and Calhoun 2004a). This framing, however, is too narrow, and this research challenges it by focusing on the relationship—too often glossed over—between PTG and resilience. Its core proposition, which is developed in the next section, is that thinking about the synergies between the

two concepts, and specifically about the social-ecological synergies, is key to fostering a broadened, more relational and contextually located understanding of PTG.

3. Resilience, PTG and the Significance of Social Ecologies

Within extant literature on PTG, the concept's relationship with resilience remains both under-conceptualised and under-examined. According to [Schaefer et al. \(2018\)](#), "the exact relationship between these two constructs is still quite unclear and the literature is plagued by ambiguity" (p. 18; see also [Levine et al. 2009](#), p. 283). Most frequently, scholars comment on the differences between PTG and resilience. The latter, however, is often discussed in a way that overlooks significant developments—and in particular, social-ecological developments—within the field of resilience research. As a consequence, opportunities for thinking in social-ecological and multi-systemic ways about PTG—and thus, for "[i]ntegrating the resilience and growth literatures" ([Infurna and Jayawickreme 2019](#), p. 155)—have been largely missed. This article seeks specifically to demonstrate the importance of [Lepore and Revenson's \(2006\)](#) argument that "the interplay between individual-level and environmental-level factors in promoting resilience and PTG should not be underestimated" (p. 36).

3.1. Resilience beyond "Bouncing Back"

It is useful to briefly outline how Tedeschi and Calhoun explain the relationship between PTG and resilience. The latter, they note, "is usually considered to be an ability to go on with life after hardship and adversity, or to continue living a purposeful life after experiencing hardship and adversity" ([Tedeschi and Calhoun 2004a](#), p. 4). In contrast, PTG "refers to a change in people that goes beyond an ability to resist and not be damaged by highly stressful circumstances; it involves a movement beyond pretrauma levels of adaptation" ([Tedeschi and Calhoun 2004a](#), p. 4). What enables this "movement" is an individual's struggle with trauma, and according to [Tedeschi and Calhoun \(2004a\)](#), p. 4), those who are resilient have better coping capacity and hence face fewer challenges in dealing with trauma. Fundamentally, these individuals "are not confronted with challenges to their core beliefs, and do not need to engage in the processing of trauma that can usher in PTG" ([Tedeschi 2011](#), p. 138; see also [Levine et al. 2009](#), p. 283; [Saltzman et al. 2018](#), p. 427; [Westphal and Bonanno 2007](#), p. 421). [Tedeschi \(2011\)](#), p. 138) also points out, however, that enhanced resilience can be an outcome of PTG, and in this way he highlights important temporal dynamics. In his words, "resilience and PTG may appear to be negatively related early on in the aftermath of trauma, but positively related after a good deal of time has allowed for processing of the trauma into a growth experience" ([Tedeschi 2011](#), p. 138).

Unpacking these arguments further, this article does not challenge the idea that there are differences between PTG and resilience (although they are not mutually exclusive concepts; see, e.g., [Kong et al. 2018](#), pp. 708–9). What it does seek to stress is that these differences appear more pronounced when the literature on PTG neglects the diversity of the literature on resilience and the "explosion of 'resilience thinking'" ([Folke et al. 2021](#), p. 1774). [Calhoun and Tedeschi \(2006\)](#) note, for example, that "Dictionary definitions of the term state that resilience is 'the power or ability to return to the original form or position after being bent, compressed, or stretched' or to 'recover readily from illness, depression or adversity'" (p. 11). Indeed, references to resilience within PTG research frequently associate it with "bouncing back" ([Aafjes-van Doorn et al. 2022](#), p. 165; [Aliche et al. 2019](#), p. 737; [Infurna et al. 2022](#), p. 577). This etymological understanding, however, is only one way of thinking about the concept.

As [Holtorf \(2018\)](#) pertinently points out, "Recent conceptions of resilience de-emphasize notions of 'bouncing back' to a previous state and place more emphasis on processes of 'bouncing forward' involving absorption, learning, adaptation and transformation than on specific outcomes in relation to a previous status quo" (p. 639). Both the desirability and feasibility of "bouncing back", moreover, have been questioned within resilience research ([Clark 2021](#); [Moulton and Machado 2019](#); [Walsh 2002](#)). Indeed, [Walker \(2020\)](#) insists that

“Possibly the most common misinterpretation of resilience is ‘bouncing back’. Resilience is in fact the ability to adapt and change, to reorganize, while coping with disturbance”. Although his work focuses on inter-linked social-ecological systems (SESs), or “combined systems of humans and nature” (Folke et al. 2003, p. 354), his argument that a system “does not bounce back to look and behave exactly like it did before” (Walker 2020) is just as pertinent to individuals (see, e.g., Clark 2021; Sleijpen et al. 2013).

3.2. *The Relevance of Social-Ecological Approaches*

Alongside studies of SESs, there is a growing accent within resilience research on “the social-ecological factors that facilitate the development of well-being under stress” (Ungar et al. 2013, p. 348). Resilience is thus framed as a relational process located in the interactions between individuals and their multi-systemic environments (Betancourt and Khan 2008; Liebenberg 2020; Masten et al. 2021; Theron 2016). In contrast to the somewhat simplistic notion of individuals “bouncing back” from significant shocks and stressors in their lives, social-ecological approaches explore how different systems—including families, neighbourhoods, health institutions and ecosystems—“work together to support individuals to regain, sustain, or improve their mental wellbeing in contexts of adversity” (Ungar and Theron 2020, p. 442).

Social-ecological language is not explicitly used in research on PTG. Tedeschi and Calhoun do acknowledge, however, the significance of wider social and environmental factors. They point out, for example, that “Supportive others can aid in posttraumatic growth by providing a way to craft narratives about the changes that have occurred, and by offering perspectives that can be integrated into schema change” (Tedeschi and Calhoun 2004a, p. 8; see also Tedeschi and Calhoun 2004b, p. 411; Tedeschi 1999, p. 321). Other scholars, similarly, have explored and emphasised the importance of social environments in fostering PTG. In a study in post-war Sarajevo, BiH, for example, Powell et al. (2003) found that one explanation for respondents’ low scores on the PTGI was that “the individuals themselves as well as the micro- and macrosystems surrounding them have been shaken, changed, or destroyed” (p. 82). The authors recognised, in other words, that wider systems—and what happens to them—can affect the possibilities for PTG. In a very different context, Pat-Horenczyk et al.’s (2015) previously mentioned research has highlighted a positive linkage between peer group support and PTG in breast cancer survivors. More recently, Aliche et al.’s (2019) research with young adults of a Fulani herdsman attack in Nigeria concluded, *inter alia*, that support—including from family and friends—helps individuals “to make a positive meaning out of the traumatic experience” (p. 745).

This article, however, does not simply argue that social support is relevant to PTG. It goes a step further by proposing a social-ecological framing that underlines the importance of individuals’ environments both in contributing to PTG and in shaping how it is expressed. The empirical material underpinning the article plays a critical part in the development of this framing.

4. The Research Study and Methodology

Scholarship on CRSV has engaged very little with the concept of resilience, and the comparative study on which this article draws made a significant contribution to addressing this gap. Examining some of the ways that female and male victims-/survivors of CRSV in three very different conflict-affected societies—BiH, Colombia and Uganda—express and manifest everyday resilience, one of the study’s key aims was to decipher the influence of cross-contextual and country-specific social-ecological factors in both supporting and impeding resilience. This maximum diversity case study approach offered maximum opportunities for unpacking the relevance of individuals’ social ecologies. The research developed its own original conceptual framework by transposing and adapting a key idea from the field of ecology, namely, connectivity (see, e.g., Bélisle 2005). It analysed resilience through the multi-layered, storied and dynamic connectivities between individuals and

their social ecologies, accentuating broken and ruptured connectivities, supportive and sustaining connectivities and new connectivities (see [Clark 2022, 2023](#)).

4.1. The Quantitative Phase

A total of 449 victims-/survivors of CRSV from across the three case study countries participated in the quantitative phase of the research by completing a study questionnaire (for analysis of the questionnaire data, see [Clark et al. 2022, 2024](#)). The author, two researchers, various in-country organisations (all except one of which were non-governmental organisations) and three independent psychologists in BiH and Colombia administered the questionnaire (which was also piloted) between May and November 2018. It was necessary to ensure—for the purposes of comprehensiveness and for exploring intersectional dimensions of resilience—that the sample reflected, as much as possible, some of the diversity of victims-/survivors in each country. Particular effort was invested in establishing contact with individuals from historically marginalised groups (such as Indigenous women in Colombia) and with those whose experiences have often been overlooked or neglected within existing scholarship on CRSV (including Serbs in BiH and Lango people in Uganda).

One of the study objectives was to probe what might be learned, in the context of a comparative research design, from participants' resilience "scores" on a quantitative measure. The pivotal part of the questionnaire with respect to this was the Adult Resilience Measure (ARM; [Resilience Research Centre 2016](#)), a 28-item scale divided into individual, relational and contextual subscales. The specific decision to use the ARM, rather than an alternative measure, was guided by two main factors. First, the ARM is based on and reflects a social-ecological approach to resilience, in contrast to several other, more person-centred resilience scales (see, e.g., [Connor and Davidson 2003](#); [Smith et al. 2008](#)). Second, the ARM is an extension of the Child and Youth Resilience Measure (CYRM), the development of which involved mixed-methods research in 11 different countries including Canada, Colombia, India, Israel and Tanzania ([Ungar and Liebenberg 2011](#), p. 128). The ARM, in other words, has cross-cultural roots, and this made it particularly suitable for the comparative research study that informs this article.

4.2. The Qualitative Phase

The study participants in each country were grouped into quartiles on the basis of their ARM scores, from those with the lowest scores (quartile 1) to those with the highest scores (quartile 4). In the qualitative part of the research, 63 interviewees (a total of 21 in each country) were selected from across the quartiles. Sampling from the ARM quartiles was important for exploring whether and how variations in ARM scores would potentially translate into the qualitative data and intersect with core themes within the data.

The interviews, undertaken by the author and two researchers with crucial logistical support from several organisations in each country,⁸ took place between January and July 2019. They were conducted in the local language/s and recorded (with interviewees' informed consent) using encrypted digital voice recorders.

Ethics approval for the research was granted by the host institution and the research funder. Further approvals had to be secured from relevant authorities in BiH, Colombia and Uganda, including the Uganda National Council for Science and Technology. The author additionally established an independent ethics board to provide valuable guidance and oversight, as required by the research funder (which reviewed the board's reports), and regular research reports needed to be submitted to the project's local institutional review board in Gulu, Uganda. There is not space to discuss the many ethics issues that the research raised, including security of data storage, dealing with unanticipated findings, minimisation of risks to research participants and fair benefit sharing (see [Clark 2022](#)). It is important to highlight, however, that most of the aforementioned in-country organisations were involved in the project for its entire duration, which created pathways to providing participants with follow-up support where required. In some cases, moreover, participants were referred on to more specialist services (e.g., for medical treatment).

Interviews were fully transcribed and professionally translated, and the transcripts were uploaded (with an Excel spreadsheet containing the quantitative data) into NVivo. The author developed the coding book over a period of approximately 12 months, iteratively revising it as the coding process progressed, and used thematic analysis to identify and establish the core themes (for a detailed discussion of the coding and data analysis process, see [Clark 2022](#)).

The interview guide did not include any questions about PTG. Some interviewees, however, spoke about growth, whether directly or more indirectly. For example, one of the Colombian interviewees—a mixed race (Mestizo) woman born in 1983—likened herself to a caterpillar. Elaborating further, she explained: “the caterpillar goes through so many changes and those changes must hurt. . . In order to become the beautiful butterfly, it has to go through a painful preparation. Right? So, that’s what I had to go through” (interview, 5 March 2019). This is significant because a caterpillar’s transformation into a butterfly is quintessentially a process of growth ([Gotthard 2008](#), p. 229), even though the interviewee herself did not explicitly use the term.

It is noteworthy that this woman had a high ARM score (128 out of 140; quartile 4), indicating that she had considerable protective resources within her social ecology (which her interview corroborated) to support resilience. Looking at the dataset as a whole, however, the larger point is that interviewees who spoke about growth, explicitly or implicitly, had wide-ranging ARM scores, as the next section will show. This diversity within a medium-sized qualitative sample is not sufficient to challenge the idea that “persons who are resilient may experience less posttraumatic growth. . . since they are less likely to struggle with the psychological consequences of trauma” ([Tedeschi 2011](#), p. 138). Yet, the fact that some of the interviewees with high ARM scores provided examples of growth lends weight to the article’s argument that social-ecological resources and connectivities are highly relevant to both resilience and PTG.

5. Some Contextual Reflections on the Interview Data and the Idea of Growth

From this point on, the article focuses squarely on the interview data. This section offers some contextual reflections on PTG and uses examples from each country to accentuate social-ecological dimensions of growth. The final section examines in greater depth and detail the crucial role of social ecologies—and interviewees’ interactions and connectivities with their social ecologies—in helping to foster and support growth.

[Cobb et al. \(2006, p. 901\)](#) have stressed the importance of including socio-cultural elements in investigations of growth (see also [Weiss and Berger 2010](#)). Supporting this, the thematic of growth varied substantially across the three datasets (BiH, Colombia and Uganda) in its salience. This can be linked to social-ecological variations not only in resources and resource availability (participants in Uganda, for example, often had fewer resources) but also in how individuals narrate their experiences (see, e.g., [Jayawickreme et al. 2021](#), p. 153) and express or manifest growth (see, e.g., [Weiss and Berger 2010](#)). Had the research included questions about growth, the data would potentially have allowed for some interesting comparative analyses of these differences. Yet, even without these questions in the interview guide, there were examples of growth that emerged. The fact that they did so most frequently in Colombia, however, was arguably linked to a skew within that country’s dataset. Specifically, many of the Colombian (female) interviewees were actively involved in women’s and/or victims’ associations, and several of them had taken on social leadership roles. The growth that some of these women expressed, such as gaining new skills and taking on new responsibilities, was inseparable from their relationships with these associations. The associations, in turn, were crucial parts of the interviewees’ social ecologies that told a larger story about the long history of women’s activism in Colombia ([Hernández Reyes 2019](#); [Paarlberg-Kvam 2019](#)).

It was the Bosnian interviewees, however, who most frequently articulated (in an explicit sense) shattered assumptions ([Janoff-Bulman 1992](#)). BiH was one of the six republics within the Socialist Federal Republic of Yugoslavia (SFRY), and it was also the

most multi-ethnic republic. Even as the SFRY disintegrated in 1991 and BiH's future became increasingly uncertain, few Bosnians could have imagined the violence (including neighbour-on-neighbour violence) that ultimately followed (Lieberman 2006, p. 299). Indeed, it was evident from the data that the Bosnian war (1992–95) had fundamentally challenged interviewees' "assumptive world" (Tedeschi and Calhoun 2004a, p. 7). Speaking about war events in her town, for example, a Bosnian Croat interviewee, born in 1955 and with an ARM score that put her in the second highest quartile, explained that "when we stayed [she had decided to remain in her town rather than leave], I was guided by the thought that I harmed no one, and no one would harm me". Becoming visibly angry, she continued:

Having someone, without being provoked, enter my . . . this intimate world, intimate life of mine . . . I objected to my mother by saying: 'You taught me one thing, some standards of behaviour, and something totally different happened, someone comes from the street and does things as they please.' Really, from the road, from the street. How can someone unknown come and . . . belittle me with this act! (interview, 30 January 2019)

Another interviewee, a Bosniak woman who was born in 1958 and had a low (quartile 1) ARM score, similarly expressed a sense of shattered assumptions when talking about the behaviour of her own army—the army of BiH (ABiH)—when it entered her town in 1993. She had felt relieved and expected it to protect her, believing that this was an honest and trustworthy army. Yet, she went on to describe how the ABiH had looted and stolen food from her and her Bosniak neighbours and how this had deeply affected her. In her words, "All my illusions, all some . . . Everything went down the drain, you know? Then I became a person who no longer trusted anyone or anything" (interview, 29 January 2019).

There were elements of growth, to some extent, in both interviewees' stories. Particularly in the case of the second interviewee, however, whose story will be discussed further in the final section, there was little indication that her experiences—despite her quartile 1 ARM score—had initiated what Tedeschi and Calhoun (2004a) refer to as "the cognitive engagement that produces PTG" (p. 7). Again, wider social-ecological and contextual factors are important for helping to explain this. Bosnian society remains deeply divided (Piacentini 2019, p. 274), and this, combined with the continued instrumentalisation of the conflict (Lai 2020, p. 182), means that there is little space for thinking about and discussing crimes committed by one's "own side". The political environment, moreover, is such that "citizens cultivate their relationships, views, and expectations within a context dominated by the nationalist-driven, status quo-oriented elite social contract" (Belloni and Ramović 2020, p. 43). This contributes to restricting opportunities for individuals to rebuild shattered assumptions, which might also partly explain why Bosnian interviewees articulated a large number of unanswered questions (including "why me?") about the war. The data also suggested, however, that the persistence of shattered assumptions does not necessarily exclude the possibilities for growth, and this is a relationship that future research on PTG could usefully explore.

Something else that stood out from the interview data, partly linked to the previous point about the political context in BiH, is that individuals' social ecologies are not always conducive to growth. Specifically, some of the interviewees expressed a sense of desired growth that their environments (or parts of them) were frustrating, an interesting dialectic that has not been discussed within extant scholarship on PTG. An Afro-Colombian interviewee, for example, who was born in 1958 and whose answers to the ARM placed her in the second highest quartile, stressed her wish to develop herself (and grow) through education. In her words, "This is a woman who wants to move forward in her studies so that she can do more in the leadership role⁹ she has taken on". Yet, she also underscored that the state structures and institutions that constituted an important part of her social ecology were not giving her the support that she needed to transform her dreams into reality. As she explained:

I want to study because I'm here with the fact that I was a victim of sexual violence and my dream is to become a lawyer to protect victims of sexual violence. That's my idea and nobody has ever asked me: 'what are your dreams?' And I would say: 'I want to study, that's what I want', but I don't have the means and nobody has talked to me about working out how I could study. (interview, 30 March 2019)

This woman's community work had helped her to move forward with her life (a phrase she used five times during the interview), and it was one of the ways that she expressed resilience; she was forging new connectivities and relationships with various parts of her social ecology (including with fellow victims-/survivors and institutions such as the state-based Victims' Unit). It was also a critical motivating factor in her aspiration to grow academically and to make a difference, thereby demonstrating how resilience can provide a springboard for growth and how social-ecological factors are deeply imbricated in both processes.

A final point to underline is that social ecologies themselves can undergo transformation in ways that support growth. Some of the Ugandan interviews were especially illustrative in this regard. Ugandan interviewees, the majority of whom were subsistence farmers, frequently spoke about the stigma and verbal abuse that they had faced within their communities—and sometimes also from family members or in-laws—because of the sexual violence they had suffered (which had resulted in some of them becoming infected with HIV). Many of these interviewees had also previously been abducted—in some cases as children—and forcibly recruited into the Lord's Resistance Army (LRA), a rebel group formed in 1987 that committed many heinous acts of violence during the nearly two decades that it was active in northern Uganda (UN Security Council 2016). These interviewees' association with the LRA, even if it was forced rather than volitional, had further exposed them to verbal abuse, including claims that they were "rebels" who should return to the bush. Such abuse often reflected, at least in part, community fears about harmful *cen* spirits. Individuals abducted by the LRA were forced to witness and often to perpetrate brutality and violence; and in Acholi culture, as Victor and Porter (2017) note, "A person may provoke *cen* by perpetrating or witnessing a violent or otherwise bad death, by desecrating a corpse, or...by stepping on or over exposed human remains" (p. 594).

Some of the interviewees, however, noted that stigma had lessened somewhat due to the intervention of local leaders and non-governmental organisations. One of the Acholi women, for example, who was born in 1988 and had a quartile 4 ARM score, maintained that there had been some positive changes in her life. She reflected: "At least I feel free among people in the community in as far as *cimo tok* [stigma; literally, "pointing at the back of one's head"] goes. At least *cimo tok* is reducing because people got relevant information through sensitisation work" (interview, 20 March 2019). In other words, people in her community, themselves victims of the war in northern Uganda, had effectively "grown"—through engagement with resources within their social ecology—in their views about returnees from the bush.

This growth within an important part of the interviewee's social ecology, in turn, helped to support her own growth. She recalled that after returning from the bush, a local organisation had given her the opportunity to work with young people in the community. The job involved speaking to youths about the risks of sexually transmitted infections, but she soon found out that people were whispering behind her back on account of her HIV status. She decided, therefore, that she was not the right person to undertake this work; "Only bad things were entering my head". As community attitudes softened and matured, however, she started to get a different perspective, including with respect to her own abilities. In her words, "Nowadays I feel I am useful", and she evidenced this by underlining "the many good, big things I am doing for my life", such as studying handiwork to help pay for her two children's school fees. This example lends important weight to Kirkner and Ullman's (2020) argument that "[f]uture research should focus on disentangling the links between individual and community variables affecting PTG" (p. 2000).

6. Growth, Connectivity and Positive Social-Ecological Interactions

In the field of ecology, connectivity is broadly understood as “a measure of easiness of movement” (Kindlmann and Burel 2008, p. 881). For example, higher levels of structural connectivity within a landscape facilitate movement between patches and habitats, and ease of movement has a critical impact on how species deal with major shocks and stressors, such as forest fires, drought and floods (Krosby et al. 2010, p. 1686).

In this research, resilience was strongly associated with movement in the sense of moving forward and getting on with life, through interactions with one’s social ecology. One of the ways that interviewees were rebuilding their lives and moving forward, for example, was through creating and developing new connectivities with different parts of their social ecologies. In some cases, moreover, the forging of these new connectivities also illustrated growth, as a process of expansion (rather than simply movement) in new directions.

Readers will recall from the previous section that the Bosniak interviewee who talked about feeling betrayed by her own army (the ABiH) had a low ARM score. This made sense; the ARM measures an individual’s protective resources, and this particular woman had few resources within her social ecology. She was a widow, she did not have children, she had no family except a brother and his infirm wife and she rarely socialised. What her ARM score could not capture, however, was the fact that she was actively building new connectivities, through the work that she had chosen to undertake with older adults in her community. Although this was initially just a way of earning some much-needed money, it quickly became something far more meaningful. As the interviewee explained, “I started working like this, for these old people. Then you feel that you are needed by someone, you know . . . I push myself to be able to help an old guy who can’t wait for me to show up at his doorstep. This keeps me going” (interview, 29 January 2019). The work, in other words, was helping her to move forward, but it had also helped her to grow. Not only was she giving something back to the community, but she insisted that “they made me a better person, these old people . . . [E]very new person has refined me a bit, you know”.

It is significant, to reiterate an earlier point, that this interviewee’s shattered assumptions remained intact. Speaking not only about the behaviour of the ABiH but also about the sexual violence (rape) that she had suffered in the Bosnian war, she underlined vis-à-vis the latter that “It kills in you all that was before, what you believed in, what you believed was valuable”. The growth that she demonstrated, thus, seemingly had little to do with “rumination” or “cognitive processing” (Tedeschi et al. 2007, p. 398). It was more a relational process of “action growth” (Hobfoll et al. 2007, p. 356).

Turning to Colombia, one of the mixed-race interviewees was born in 1974 and had an ARM score that placed her in quartile 1. This was a surprising result because in contrast to the previous interviewee, she had various resources in her life that she was able to draw upon, including her faith, her smallholding and her children. During the interview, this woman used the word “strength” a total of 11 times, linking it to factors including her ethnic roots and her role as a mother. She also insisted that she had “become stronger” as a result of what she had gone through (including her own experience of rape, the rape of her daughter and the murder of her husband). The examples that she gave to support this, moreover, suggested that such growth was more “constructive” than “illusory” (Maercker and Zoellner 2004, p. 43). First, there was growth in respect of how she was dealing with everything that had happened. She explained that for a long time, she had not been able to speak about her experiences, particularly the CRSV that she endured. “I didn’t want to touch it”, she insisted. Her involvement with several victims’ associations, however, had changed this and, relatedly, her broader perspective on what she had gone through. She reflected:

I like . . . coming to places like this. I’ve learned a great deal and gained skills. It’s where I get strength. It’s where I’ve learned to cope with the pain; sharing with other people has let me see that it wasn’t just me who suffered these things. Before I always felt it was me alone, you see. (interview, 4 February 2019)

Second, there was growth in the sense of her relationship with the community. For a while, she had withdrawn and “abandoned” it. Now, however, she had started afresh; “I’ve started again with my life in the community”. An important driving factor in this regard was her desire to help other women in the community and to support them—and she had succeeded in her goal of setting up her own association. As she explained, “I use my experience to help other women”. The skills that she had gained through attending workshops organised by other women’s and victims’ associations had been crucial. These skills, and her new knowledge fostered through social interactions, had led her to the realisation that “right, I have to take control”.

In her research with 44 female survivors of sexual violence, [Draucker \(2001\)](#) found that “Despite having no illusions of a benevolent world, many of the women in the study described making sure that something good came out of the violence they experienced by engaging in activities to create some positive outcome” (p. 77). This idea was also very prominent within the Colombian data (although this likely reflected, at least in part, the previously noted skew within this dataset), and one of the interviewees—an Indigenous woman in her early 60s with a quartile 4 ARM score—expressed this explicitly. In her words, “For me, it [her experience of CRSV] has become something good—not because of what was done to me, but rather because of what I’m doing with it now” (interview, 6 March 2019).

What stands out from these examples is that the growth interviewees had experienced was something much broader than just positive psychological change. It was growth that had developed with the support of, and through interactions with, their social ecologies and rather than simply being self-reported, it often practically manifested in interviewees’ relationships with these social ecologies. Although relationships with others are one of the five factors in [Tedeschi and Calhoun’s \(1996\)](#) PTGI, this article goes beyond this by maintaining that PTG is intrinsically a relational concept that cannot be fully understood or analysed in isolation from individuals’ social-ecological environments.

It is essential to acknowledge that this discussion about PTG has overlooked male interviewees. Indeed, one of the limitations of the research was the small number of male participants. Only 27 of the 449 individuals who completed a study questionnaire were men, and this meant that men were also under-represented in the qualitative part of the research (11 of the 63 interviewees were men). While any research with victims-/survivors of CRSV necessarily presents challenges due to the sensitivity of the topic, the above figures highlight that establishing contact with and gaining access to male victims-/survivors can be especially challenging. At the international policy level, these men have often been overlooked (see, e.g., [Dolan 2014](#), p. 83), and even though this is starting to change, [Schulz \(2018\)](#), p. 587) underlines that “Gender-sensitive support services for male survivors of sexual violence remain elusive, especially in societies affected by conflict”. One of the consequences is that some men are very reluctant to self-identify as victims-/survivors of CRSV ([Gorris 2015](#), p. 415). Going forward, therefore, investigation of the relationship between gender and PTG in the context of CRSV would be an important topic for future research. Indeed, some research on PTG has already found that there are gender differences in self-reported growth (see, e.g., [Liu et al. 2020](#); [Vishnevsky et al. 2010](#)).

7. Conclusions and Wider Implications

Discussions about PTG (and, relatedly, resilience) in the context of CRSV are rare. The significance of this article is that it makes a highly original contribution to scholarship on PTG and to existing literature on sexual violence in conflict. It has not, however, sought in any way to suggest that those who suffer such violence (which often co-occurs with other forms of violence) *should* experience growth. Traumatic events are fundamentally non-normative, meaning that there is necessarily enormous diversity and variation in how individuals react to and deal with them ([Weststrate et al. 2022](#), p. 706). This is precisely one of the reasons for looking at PTG. As [Cole and Lynn \(2010\)](#) argue in their work on sexual assault, “by examining the complete spectrum of posttraumatic reactions that survivors

experience, a richer and more comprehensive understanding of the manifold ways in which people are affected by trauma may be attained” (p. 119).

Existing empirical research on PTG is predominantly quantitative and relies on self-report measures, such as the PTGI. This article, in contrast, and as a further aspect of its novelty, draws on a research study—and specifically on rich qualitative data—that did not ask any questions about growth. This is important because as [Park and Lechner \(2014\)](#) note, when study participants “provide their information without being prompted by specific items, researchers can be relatively certain that the growth responses that are given are meaningful and relevant to the participant” (pp. 49–50). Leaving space for the thematic of growth to emerge (whether directly or more indirectly) organically, in short, can help to avoid some of the issues that arise with self-report measures, including “when and for whom self-reported growth is real” ([Frazier and Kaler 2006](#), p. 868).

In addition to its empirical contribution to extant scholarship, this research has also offered something new conceptually. Maintaining that the common framing of PTG as positive psychological change is too narrow, it has proposed a broader and more relational social-ecological framing to accentuate the crucial role that environments—and the resources within those environments—play in supporting and facilitating growth and in shaping its expression. In so doing, it has highlighted important synergies between PTG and resilience (which is not to detract from the differences between the two concepts). While PTG scholarship most frequently discusses resilience as a process of “bouncing back,” this is a reductionist conceptualisation that neglects some of the major developments that have taken place within resilience research. A particularly significant development is the growing shift from person-centred approaches to resilience to more contextual and multi-layered explanations “that also account for the social and ecological systems and associated resources that are important to human resilience” ([Theron et al. 2021](#), p. 361).

Thinking in more social-ecological ways about PTG—which can further reduce the reliance on self-report measures—has wider practical implications. Viewing PTG as positive psychological change encourages interventions focused on individuals. The framing that this article has proposed, in contrast, calls for interventions that also give attention to individuals’ social ecologies and social-ecological relationships (see [Liebenberg 2020](#), p. 1373) and ultimately seek to invest in them. To reiterate, this is not about making normative judgements about PTG or resilience. It is about developing interventions that recognise that we are all, as individuals, “embedded within larger social systems” ([Golden and Earp 2012](#), p. 364).

Funding: This research was supported by the European Research Council under grant number 724518.

Institutional Review Board Statement: The research on which this article draws was conducted in accordance with the Declaration of Helsinki and approved by the following: the Humanities and Social Sciences Ethical Review Committee at the University of Birmingham (ERN_16-1560; 24 February 2017), the European Research Council Executive Agency (Ares(2017)1595734—ERC-2016-CoG—724518_CSRS; 5 May 2017 and reviewed periodically), the Sarajevo School of Science and Technology (16 January 2017), the Research Ethics Committee at Rosario University in Colombia (CEI-DVN021-2-026; 22 August 2017), the Lacor Hospital Institutional Research Ethics Committee in Uganda (012/05/17; 10 July 2017 and renewed annually), and the Uganda National Council for Science and Technology (SS4630; 12 June 2018).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data are not publicly available but are in a research repository (<https://doi.org/10.25500/edata.bham.00000705>).

Conflicts of Interest: The author declares no conflicts of interest.

Notes

- 1 This article uses the term “victims-/survivors” to respect and acknowledge the fact that individuals who have experienced CRSV may identify with one term more than the other, or indeed with both. The interviews on which this article draws support this. When citing other scholars’ work, however, the article uses the terminology that they themselves use.
- 2 On the relationship between PTG and trauma, research has yielded mixed results (see, e.g., [Aafjes-van Doorn et al. 2022](#), p. 170; [Saltzman et al. 2018](#), pp. 419–20). [Cole and Lynn \(2010\)](#), however, point out that “The accumulation of studies that have failed to find support for PTG as a protective factor against adverse post-trauma reactions would seem to suggest that any effect that may exist is unlikely to be robust in nature” (p. 121).
- 3 [Janoff-Bulman \(1992\)](#) argues that when individuals experience trauma, their conceptual system is overturned, and “The very assumptions that had provided psychological coherence and stability in a complex world are the very assumptions that are shattered” (p. 64).
- 4 For a particularly rich analysis of the relationship between PTG and culture, see [Kashyap and Hussain \(2018\)](#). These authors also express concerns about “the lack of research on this construct [PTG] from an emic perspective and an overreliance on research literature from a Western viewpoint” ([Kashyap and Hussain 2018](#), p. 63).
- 5 Related to the significance of culture, it should be noted that there is now an expanded version of the PTGI (the PTGI-X). One of the factors in the original PTGI was spiritual change (SC), which consisted of two items. To enable a broader assessment of the relationship between SC and PTG in different cultural contexts, [Tedeschi et al. \(2017\)](#) developed additional items “that represent a diversity of perspectives on spiritual–existential experiences” (p. 12). The result is an expanded SC factor that is now called spiritual-existential change (SEC), with four new items.
- 6 [Frazier et al.’s \(2001\)](#) research, however, which focused on 171 female sexual assault survivors, found that “even if positive changes are more perception than reality, they nonetheless are associated with less distress and can also be considered as important outcomes in and of themselves” (p. 1055).
- 7 Similarly, actions—such as volunteering—have been shown to facilitate and foster growth (see, e.g., [Anderson et al. 2016](#), pp. 248–49).
- 8 These organisations included the Centre for Democracy and Transitional Justice and *Snaga Žene* in BiH, *Profamilia* and *Ruta Pacifica de las Mujeres* in Colombia, and Facilitation for Peace and Development (FAPAD) and the Justice and Reconciliation Project (JRP) in Uganda.
- 9 The interviewee was the regional coordinator of a women’s organisation.

References

- Aafjes-van Doorn, Katie, Vera Békés, Xiaochen Luo, Tracy A. Prout, and Leon Hoffman. 2022. Therapists’ resilience and posttraumatic growth during the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy* 14: S165–73. [[CrossRef](#)]
- Aliche, Joseph Chinenye, Chuka Mike Ifeagwazi, Ike E. Onyishi, and Philip Chukwuemeka Mefoh. 2019. Presence of meaning in life mediates the relations between social support, posttraumatic growth, and resilience in young adult survivors of a terror attack. *Journal of Loss and Trauma* 24: 736–49. [[CrossRef](#)]
- Anderson, David, Phoebe Prioleau, Kanako Taku, Yu Naruse, Hideharu Sekine, Masaharu Maeda, Hirooki Yabe, Craig Katz, and Robert Yanagisawa. 2016. Post-traumatic stress and growth among medical student volunteers after the March 2011 disaster in Fukushima, Japan: Implications for student involvement with future disasters. *Psychiatric Quarterly* 87: 241–51. [[CrossRef](#)]
- Anderson, Kimberley, Amra Delić, Ivan Komproe, Esmina Avdibegović, Elisa van Ee, and Heide Glaesmer. 2019. Predictors of posttraumatic growth among conflict-related sexual violence survivors from Bosnia and Herzegovina. *Conflict and Health* 13: 23. [[CrossRef](#)]
- Bechara, Andrea Ortega, Zhuo Job Chen, Richard G. Cowden, Everett L. Worthington, Richard Tedeschi, and Mihaly Csikszentmihalyi. 2021. Adapting positively to trauma: Associations of posttraumatic growth, wisdom, and virtues in survivors of civil war. *Journal of Aggression, Maltreatment & Trauma* 30: 1292–306. [[CrossRef](#)]
- Bélisle, Marc. 2005. Measuring landscape connectivity: The challenge of behavioral landscape ecology. *Ecology* 86: 1988–95. [[CrossRef](#)]
- Belloni, Roberto, and Jasmin Ramović. 2020. Elite and everyday social contracts in Bosnia and Herzegovina: Pathways to forging a national social contract? *Journal of Intervention and Statebuilding* 14: 42–63. [[CrossRef](#)]
- Betancourt, Theresa Stichick, and Kashif Tanveer Khan. 2008. The mental health of children affected by armed conflict: Protective processes and pathways to resilience. *International Review of Psychiatry* 20: 317–28. [[CrossRef](#)]
- Blackie, Laura E. R., Eranda Jayawickreme, Eli Tsukayama, Marie J. C. Forgeard, Ann Marie Roepke, and William Fleeson. 2017. Post-traumatic growth as positive personality change: Developing a measure to assess within-person variability. *Journal of Research in Personality* 69: 22–32. [[CrossRef](#)]
- Boals, Adriel, and Keke L. Schuler. 2018. Reducing reports of illusory posttraumatic growth: A revised version of the Stress-Related Growth Scale (SRGS-R). *Psychological Trauma: Theory, Research, Practice, and Policy* 10: 190–98. [[CrossRef](#)]
- Boals, Adriel, and Keke L. Schuler. 2019. Shattered cell phones, but not shattered lives: A comparison of reports of illusory posttraumatic growth on the Posttraumatic Growth Inventory and the Stress-Related Growth Scale—Revised. *Psychological Trauma: Theory, Research, Practice, and Policy* 11: 239–46. [[CrossRef](#)]

- Boals, Adriel, and Keke Liu. 2020. Illusory reports of posttraumatic growth in response to a nontraumatic event. *Journal of Loss and Trauma* 25: 74–85. [\[CrossRef\]](#)
- Boals, Adriel, Elizabeth L. Griffith, and Crystal L. Park. 2023. Can respondents accurately self-report posttraumatic growth when coached through the required cognitive steps? *Anxiety, Stress & Coping* 36: 184–98. [\[CrossRef\]](#)
- Calhoun, Lawrence G., and Richard G. Tedeschi. 2006. The foundations of posttraumatic growth: An expanded framework. In *Handbook of Posttraumatic Growth: Research and Practice*. Edited by Lawrence G. Calhoun and Richard G. Tedeschi. New York: Psychology Press, pp. 3–23.
- Calhoun, Lawrence G., Arnie Cann, Richard G. Tedeschi, and Jamie McMillan. 2000. A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress* 13: 521–27. [\[CrossRef\]](#)
- Caruth, Cathy. 1995. Introduction. In *Trauma: Explorations in Memory*. Edited by Cathy Caruth. Baltimore: John Hopkins University Press, pp. 3–12.
- Chen, Ruey, Sun Chao, Jian-Jun Chen, Hsiu-Ju Jen, Xiao Linda Kang, Ching-Chiu Kao, and Kuei-Ru Chou. 2022. A large-scale survey on trauma, burnout, and posttraumatic growth among nurses during the COVID-19 pandemic. *International Journal of Mental Health Nursing* 30: 102–16. [\[CrossRef\]](#)
- Clark, Janine N. 2021. Beyond “bouncing”: Resilience as an expansion-contraction dynamic within a holonic frame. *International Studies Review* 23: 556–79. [\[CrossRef\]](#)
- Clark, Janine N. 2022. *Resilience, Conflict-Related Sexual Violence and Transitional Justice: A Social-Ecological Framing*. Abingdon: Routledge.
- Clark, Janine N. 2023. Thinking about resilience through the interdisciplinary lens of connectivity: A study of conflict-related sexual violence. *Journal of Intervention and Statebuilding* 17: 99–118. [\[CrossRef\]](#)
- Clark, Janine N., Philip Jefferies, and Michael Ungar. 2024. Event centrality and conflict-related sexual violence: A new application of the Centrality of Event Scale (CES). *International Review of Victimology* 30: 166–91. [\[CrossRef\]](#)
- Clark, Janine N., Philip Jefferies, Sarah Foley, and Michael Ungar. 2022. Measuring resilience in the context of conflict-related sexual violence: A novel application of the Adult Resilience Measure (ARM). *Journal of Interpersonal Violence* 37: NP17570–615. [\[CrossRef\]](#)
- Cobb, Amanda R., Richard G. Tedeschi, Lawrence G. Calhoun, and Arnie Cann. 2006. Correlates of posttraumatic growth in survivors of intimate partner violence. *Journal of Traumatic Stress* 19: 895–903. [\[CrossRef\]](#)
- Cole, Alison S., and Steven J. Lynn. 2010. Adjustment of sexual assault survivors: Hardiness and acceptance coping in posttraumatic growth. *Imagination, Cognition and Personality* 30: 111–27. [\[CrossRef\]](#)
- Connor, Kathryn M., and Jonathan R. T. Davidson. 2003. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety* 18: 76–82. [\[CrossRef\]](#) [\[PubMed\]](#)
- Dolan, Chris. 2014. Has patriarchy been stealing the feminists’ clothes? Conflict-related sexual violence and UN Security Council resolutions. *IDS Bulletin* 45: 80–84. [\[CrossRef\]](#)
- Draucker, Claire B. 2001. Learning the harsh realities of life: Sexual violence, disillusionment, and meaning. *Health Care for Women International* 22: 67–84. [\[CrossRef\]](#)
- Engelkemeyer, Sean M., and Samuel J. Marwit. 2008. Posttraumatic growth in bereaved parents. *Journal of Traumatic Stress* 21: 344–46. [\[CrossRef\]](#) [\[PubMed\]](#)
- Folke, Carl, Johan Colding, and Fikret Berkes. 2003. Synthesis: Building resilience and adaptive capacity in social-ecological systems. In *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Edited by Carl Folke, Johan Colding and Fikret Berkes. Cambridge: Cambridge University Press, pp. 352–87.
- Folke, Carl, Stephen Carpenter, Thomas Elmqvist, Lance Gunderson, and Brian Walker. 2021. Resilience: Now more than ever. *Ambio* 50: 1774–77. [\[CrossRef\]](#) [\[PubMed\]](#)
- Frazier, Patricia A., and Matthew E. Kaler. 2006. Assessing the validity of self-reported stress-related growth. *Journal of Consulting and Clinical Psychology* 74: 859–69. [\[CrossRef\]](#) [\[PubMed\]](#)
- Frazier, Patricia, Amy Conlon, and Theresa Glaser. 2001. Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology* 69: 1048–55. [\[CrossRef\]](#)
- Golden, Shelley D., and Jo Anne L. Earp. 2012. Social ecological approaches to individuals and their contexts. *Health Education & Behavior* 39: 364–72. [\[CrossRef\]](#)
- Gorris, Ellen A. P. 2015. Invisible victims? Where are male victims of conflict-related sexual violence in international law and policy? *European Journal of Women’s Studies* 22: 412–27. [\[CrossRef\]](#)
- Gotthard, Karl. 2008. Adaptive growth decisions in butterflies. *BioScience* 58: 222–30. [\[CrossRef\]](#)
- Hobfoll, Stevan E., Brian J. Hall, Daphna Canetti-Nisim, Sandro Galea, Robert J. Johnson, and Patrick A. Palmieri. 2007. Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology* 56: 345–66. [\[CrossRef\]](#)
- Holtorf, Cornelius. 2018. Embracing change: How cultural resilience is increased through cultural heritage. *World Archaeology* 50: 639–50. [\[CrossRef\]](#)
- Infurna, Frank J., and Eranda Jayawickreme. 2019. Fixing the growth illusion: New directions for research in resilience and posttraumatic growth. *Current Directions in Psychological Science* 28: 152–58. [\[CrossRef\]](#)
- Infurna, Frank J., Suniya S. Luthar, and Kevin J. Grimm. 2022. Investigating posttraumatic growth in midlife using an intensive longitudinal research design: Posttraumatic growth is not as prevalent as previously considered. *European Journal of Personality* 36: 576–96. [\[CrossRef\]](#)

- Janoff-Bulman, Ronnie. 1992. *Shattered Assumptions: Towards a New Psychology of Trauma*. New York: The Free Press.
- Jayawickreme, Eranda, and Frank J. Infurna. 2021. Toward a more credible understanding of post-traumatic growth. *Journal of Personality* 89: 5–8. [[CrossRef](#)] [[PubMed](#)]
- Jayawickreme, Eranda, Frank J. Infurna, Kinan Alajak, Laura E. R. Blackie, William J. Chopik, Joanne M. Chung, Anna Dorfman, William Fleeson, Marie J. C. Forgeard, Patricia Frazier, and et al. 2021. Post-traumatic growth as positive personality change: Challenges, opportunities, and recommendations. *Journal of Personality* 89: 145–65. [[CrossRef](#)] [[PubMed](#)]
- Kashyap, Shivali, and Dilwar Hussain. 2018. Cross-cultural challenges to the construct “posttraumatic growth”. *Journal of Loss and Trauma* 23: 51–69. [[CrossRef](#)]
- Kindlmann, Pavel, and Françoise Burel. 2008. Connectivity measures: A review. *Landscape Ecology* 23: 879–90. [[CrossRef](#)]
- Kirkner, Anne, and Sarah E. Ullman. 2020. sexual assault survivors’ post-traumatic growth: Individual and community-level differences. *Violence Against Women* 26: 1987–2003. [[CrossRef](#)] [[PubMed](#)]
- Kong, Linghua, Mei Fang, Tao Ma, Guopeng Li, Fang Yang, Qian Meng, Ye Li, and Ping Li. 2018. Positive affect mediates the relationships between resilience, social support and posttraumatic growth of women with infertility. *Psychology, Health & Medicine* 23: 707–16. [[CrossRef](#)]
- Kroo, Adrienn, and Henriett Nagy. 2011. Posttraumatic growth among traumatized Somali refugees in Hungary. *Journal of Loss and Trauma* 16: 440–58. [[CrossRef](#)]
- Krosby, Meade, Joshua Tewksbury, Nick M. Haddad, and Jonathan Hoekstra. 2010. Ecological connectivity for a changing climate. *Conservation Biology* 24: 1686–89. [[CrossRef](#)] [[PubMed](#)]
- Kuwert, Philipp, Heide Glaesmer, Svenja Eichhorn, Elena Grundke, Robert H. Pietrzak, Harald J. Freyberger, and Thomas Klauer. 2014. Long-term effects of conflict-related sexual violence compared with non-sexual war trauma in female World War II survivors: A matched pairs study. *Archives of Sexual Behavior* 43: 1059–64. [[CrossRef](#)] [[PubMed](#)]
- Lai, Daniela. 2020. Practicing solidarity: ‘Reconciliation’ and Bosnian protest movements. *Ethnopolitics* 19: 168–87. [[CrossRef](#)]
- Leite, Marta, Helen Ross, and Fikret Berkes. 2019. Interactions between individual, household, and fishing community resilience in southeast Brazil. *Ecology and Society* 24: 2. [[CrossRef](#)]
- Lepore, Stephen J., and Tracey A. Revenson. 2006. Resilience and posttraumatic growth: Recovery, resistance, and reconfiguration. In *Handbook of Posttraumatic Growth: Research and Practice*. Edited by Lawrence G. Calhoun and Richard G. Tedeschi. New York: Psychology Press, pp. 24–46.
- Leppma, Monica, Anna Mnatsakanova, Khachatur Sarkisian, Olivia Scott, Leonie Adjeroh, Michael E. Andrew, John M. Violanti, and Erin C. McCanlies. 2018. Stressful life events and posttraumatic growth among police officers: A cross-sectional study. *Stress & Health* 34: 175–86. [[CrossRef](#)]
- Levine, Stephen Z., Avital Laufer, Einat Stein, Yaira Hamama-Raz, and Zahava Solomon. 2009. Examining the relationship between resilience and posttraumatic growth. *Journal of Traumatic Stress* 22: 282–86. [[CrossRef](#)]
- Liebenberg, Linda. 2020. Reconsidering interactive resilience processes in mental health: Implications for child and youth services. *Journal of Community Psychology* 48: 1365–80. [[CrossRef](#)]
- Lieberman, Ben. 2006. Nationalist narratives, violence between neighbours and ethnic cleansing in Bosnia-Herzegovina: A case of cognitive dissonance? *Journal of Genocide Research* 8: 295–309. [[CrossRef](#)]
- Linley, P. Alex, and Stephen Joseph. 2004. Positive change following trauma and adversity: A review. *Journal of Traumatic Stress* 17: 11–21. [[CrossRef](#)]
- Liu, Zhunzhun, Daniela Doege, Melissa S. Y. Thong, and Volker Arndt. 2020. The relationship between posttraumatic growth and health-related quality of life in adult cancer survivors: A systematic review. *Journal of Affective Disorders* 276: 159–68. [[CrossRef](#)]
- Maercker, Andreas, and Tanja Zoellner. 2004. Perceived growth: Toward a two-component model of posttraumatic growth. *Psychological Inquiry* 15: 41–48.
- Masten, Ann S. 2021. Resilience of children in disasters: A multisystem perspective. *International Journal of Psychology* 56: 1–11. [[CrossRef](#)] [[PubMed](#)]
- Masten, Ann S., Cara M. Lucke, Kayla M. Nelson, and Isabella C. Stallworthy. 2021. Resilience in development and psychopathology: Multisystem perspectives. *Annual Review of Clinical Psychology* 17: 521–49. [[CrossRef](#)] [[PubMed](#)]
- Moulton, Alex A., and Mario R. Machado. 2019. Bouncing forward after Irma and Maria: Acknowledging colonialism, problematizing resilience and thinking climate justice. *Journal of Extreme Events* 6: 1940003. [[CrossRef](#)]
- Paarlberg-Kvam, Kate. 2019. What’s to come is more complicated: Feminist visions of peace in Colombia. *International Feminist Journal of Politics* 21: 194–223. [[CrossRef](#)]
- Park, Crystal L., and Suzanne C. Lechner. 2014. Measurement issues in assessing growth following stressful life experiences. In *Handbook of Posttraumatic Growth: Research and Practice*. Edited by Crystal L. Park and Suzanne C. Lechner. New York: Routledge, pp. 47–67.
- Park, Crystal L., Lawrence H. Cohen, and Renee L. Murch. 1996. Assessment and prediction of stress-related growth. *Journal of Personality* 64: 71–105. [[CrossRef](#)]
- Pat-Horenczyk, Ruth, Shlomit Perry, Yaira Hamama-Raz, Yuval Ziv, Sarit Schramm-Yavin, and Salomon M. Stemmer. 2015. Posttraumatic growth in breast cancer survivors: Constructive and illusory aspects. *Journal of Traumatic Stress* 28: 214–22. [[CrossRef](#)]
- Piacentini, Arianna. 2019. “Trying to fit in”: Multiethnic parties, ethno-clientelism, and power-sharing in Bosnia and Herzegovina and Macedonia. *Nationalism and Ethnic Politics* 25: 273–91. [[CrossRef](#)]

- Powell, Steve, Rita Rosner, Willi Butollo, Richard G. Tedeschi, and Lawrence G. Calhoun. 2003. Posttraumatic growth after war: A study with former refugees and displaced people in Sarajevo. *Journal of Clinical Psychology* 59: 71–83. [CrossRef]
- Resilience Research Centre. 2016. The Resilience Research Centre Adult Resilience Measure (RRC-ARM): User's Manual. Available online: <https://cym.resilienceresearch.org/files/ArchivedMaterials.zip> (accessed on 7 November 2023).
- Reyes, Castriela E. H. 2019. Black women's struggles against extractivism, land dispossession, and marginalization in Colombia. *Latin American Perspectives* 46: 217–34. [CrossRef]
- Saltzman, Leia Y., Ruth Pat-Horenczyk, Margaret Lombe, Alon Weltman, Yuval Ziv, Thomas McNamara, David Takeuchi, and Danny Brom. 2018. Post-combat adaptation: Improving social support and reaching constructive growth. *Anxiety, Stress & Coping* 31: 418–30. [CrossRef]
- Schaefer, Lauren M., Kathryn H. Howell, Laura E. Schwartz, Jamison S. Bottomley, and Candice B. Crossnine. 2018. A concurrent examination of protective factors associated with resilience and posttraumatic growth following childhood victimization. *Child Abuse & Neglect* 85: 17–27. [CrossRef]
- Schulz, Philipp. 2018. The "ethical loneliness" of male sexual violence survivors in Northern Uganda: Gendered reflections on silencing. *International Feminist Journal of Politics* 20: 583–601. [CrossRef]
- Shamia, N. A., Abdel Aziz M. Thabet, and Panos Vostanis. 2015. Exposure to war traumatic experiences, post-traumatic stress disorder and post-traumatic growth among nurses in Gaza. *Journal of Psychiatric and Mental Health Nursing* 22: 749–55. [CrossRef] [PubMed]
- Şimşir, Zeynep, Bülent Dilmaç, and Hatice I. Ö. Kozan. 2021. Posttraumatic growth experiences of Syrian refugees after war. *Journal of Humanistic Psychology* 61: 55–72. [CrossRef]
- Sleijpen, Marieke, F. Jackie June Ter Heide, Trudy Mooren, Hennie R. Boeije, and Rolf J. Kleber. 2013. Bouncing forward of young refugees: A perspective on resilience research directions. *European Journal of Psychotraumatology* 4: 20124. [CrossRef] [PubMed]
- Smith, Bruce W., Jeanne Dalen, Kathryn Wiggins, Erin Tooley, Paulette Christopher, and Jennifer Bernard. 2008. The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine* 15: 194–200. [CrossRef] [PubMed]
- Tedeschi, Richard G. 1999. Violence transformed: Posttraumatic growth in survivors and their societies. *Aggression and Violent Behavior* 4: 319–41. [CrossRef]
- Tedeschi, Richard G. 2011. Posttraumatic growth in combat veterans. *Journal of Clinical Psychology in Medical Settings* 18: 137–44. [CrossRef]
- Tedeschi, Richard G., and Lawrence G. Calhoun. 1996. The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress* 9: 455–71. [CrossRef]
- Tedeschi, Richard G., and Lawrence G. Calhoun. 2004a. Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry* 15: 1–18. [CrossRef]
- Tedeschi, Richard G., and Lawrence G. Calhoun. 2004b. A clinical approach to posttraumatic growth. In *Positive Psychology and Practice*. Edited by P. Alex Linley and Stephen Joseph. Hoboken: John Wiley & Sons, pp. 405–19.
- Tedeschi, Richard G., Arnie Cann, Kanako Taku, Emre Senol-Durak, and Lawrence G. Calhoun. 2017. The Posttraumatic Growth Inventory: A revision integrating existential and spiritual change. *Journal of Traumatic Stress* 30: 11–18. [CrossRef] [PubMed]
- Tedeschi, Richard G., Lawrence G. Calhoun, and Arnie Cann. 2007. Evaluating resource gain: Understanding and *misunderstanding* posttraumatic growth. *Applied Psychology* 56: 396–406. [CrossRef]
- Theron, Linda C. 2016. The everyday ways that school ecologies facilitate resilience: Implications for school psychologists. *School Psychology International* 37: 87–103. [CrossRef]
- Theron, Linda C., Diane Levine, and Michael Ungar. 2021. African emerging adult resilience: Insights from a sample of township youth. *Emerging Adulthood* 9: 360–71. [CrossRef]
- Theron, Linda, and Adrian van Breda. 2021. Multisystemic enablers of sub-Saharan child and youth resilience to maltreatment. *Child Abuse & Neglect* 119: 105083. [CrossRef]
- Tu, Allison K., Juliana Restivo Haney, Kathryn O'Neill, Akshay Swaminathan, Karmel W. Choi, Hyunjoon Lee, Jordan W. Smoller, Vikram Patel, Paul J. Barreira, Cindy H. Liu, and et al. 2023. Post-traumatic growth in PhD students during the COVID-19 pandemic. *Psychiatry Research Communications* 3: 100104. [CrossRef]
- UN Security Council. 2016. Lord's Resistance Army. Available online: <https://www.un.org/securitycouncil/sanctions/2127/materials/summaries/entity/lord%E2%80%99s-resistance-army> (accessed on 11 October 2023).
- Ungar, Michael. 2011. Introduction to the volume. In *The Social Ecology of Resilience: A Handbook of Theory and Practice*. Edited by Michael Ungar. New York: Springer, pp. 1–9.
- Ungar, Michael, and Linda Liebenberg. 2011. Assessing resilience across cultures using mixed methods: Construction of the Child and Youth Resilience Measure. *Journal of Mixed Methods Research* 5: 126–49. [CrossRef]
- Ungar, Michael, and Linda Theron. 2020. Resilience and mental health: How multisystemic processes contribute to positive outcomes. *The Lancet Psychiatry* 7: 441–48. [CrossRef]
- Ungar, Michael, Mehdi Ghazinour, and Jörg Richter. 2013. Annual Research Review: What is resilience within the social ecology of human development? *Journal of Child Psychology and Psychiatry* 54: 348–66. [CrossRef]
- Vazquez, Carmelo, Carmen Valiente, Felipe E. García, Alba Contreras, Vanesa Peinado, Almudena Trucharte, and Richard P. Bentall. 2021. Post-traumatic growth and stress-related responses during the COVID-19 pandemic in a national representative sample: The role of positive core beliefs about the world and others. *Journal of Happiness Studies* 22: 2915–35. [CrossRef] [PubMed]

- Victor, Letha, and Holly Porter. 2017. Dirty things: Spiritual pollution and life after the Lord's Resistance Army. *Journal of Eastern African Studies* 11: 590–608. [\[CrossRef\]](#)
- Vishnevsky, Tanya, Arnie Cann, Lawrence G. Calhoun, Richard G. Tedeschi, and George J. Demakis. 2010. Gender differences in self-reported posttraumatic growth: A meta-analysis. *Psychology of Women Quarterly* 34: 110–20. [\[CrossRef\]](#)
- Walker, Brian H. 2020. Resilience: What it is and is not. *Ecology and Society* 25: 11. [\[CrossRef\]](#)
- Walsh, Froma. 2002. Bouncing forward: Resilience in the aftermath of September 11. *Family Process* 41: 34–36. [\[CrossRef\]](#) [\[PubMed\]](#)
- Weiss, Tzipi. 2002. Posttraumatic growth in women with breast cancer and their husbands. *Journal of Psychosocial Oncology* 20: 65–80. [\[CrossRef\]](#)
- Weiss, Tzipi, and Roni Berger, eds. 2010. *Posttraumatic Growth and Culturally Competent Practice: Lessons Learned from around the Globe*. Hoboken: John Wiley and Sons.
- Westphal, Maren, and George A. Bonanno. 2007. Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Applied Psychology* 56: 417–27. [\[CrossRef\]](#)
- Weststrate, Nic M., Eranda Jayawickreme, and Cornelia Wrzus. 2022. Advancing a three-tier personality framework for posttraumatic growth. *European Journal of Personality* 36: 704–25. [\[CrossRef\]](#)
- Xu, Jiuping, and Qian Liao. 2011. Prevalence and predictors of posttraumatic growth among adult survivors one year following 2008 Sichuan earthquake. *Journal of Affective Disorders* 133: 274–80. [\[CrossRef\]](#) [\[PubMed\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.