Investigating Corroboration of Self-Perceived Posttraumatic Growth among Sri Lankan Tamil Survivors of Ethnopolitical Warfare Through Trait, Domain, and Profile Agreement Approaches

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Abstract

Though research on assessing posttraumatic growth has been severely critiqued, some evidence suggests close others can observe and report changes in individuals following traumatic life events and are sensitive to idiosyncratic ways in which changes manifest. We extended these findings by investigating corroboration of self-perceived posttraumatic growth (PTG) and depreciation (PTD) as measured by the Posttraumatic Growth Inventory-42 (PTGI-42) among Sri Lankan Tamil war survivors (n = 200). Informants slightly corroborated overall levels of PTG and PTD, while a more nuanced profile analysis procedure revealed overall—but not distinctive—profile agreement. This suggests self-other agreement is modest and may partly reflect shared narratives and collective cultural understandings about how people change after trauma. Results demonstrate further that informants were not sensitive to idiosyncratic ways in which target individuals had changed. Together, the lack of validity evidence suggests that the PTGI-42 may be inadequate in some cross-cultural contexts as a measure of nuanced posttraumatic change (i.e., as a measure of specific changes in the five theorized domains of growth and depreciation). Future work should emphasize culture- and context-sensitive measurement of posttraumatic change, particularly focusing on methods other than retrospective self-reports, such as prospective longitudinal designs.

Public Significance Statement

This study suggests a common measure of perceived posttraumatic change may not capture changes among Sri Lankan civil war survivors. Posttraumatic change may manifest differently following collective trauma (e.g., ethnopolitical violence) in collectivistic cultures than it does following idiosyncratic trauma in individualistic cultures (the setting for most posttraumatic change research).

Keywords: posttraumatic growth; informant sampling; trauma; ethnopolitical violence; profile analysis

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It is perhaps appealing, inspiring, and heartening to look for growth opportunities in the wake of trauma and tragedy. The study of such positive change—often referred to as *posttraumatic growth*—is a rich but controversial area of study, as it is unclear how to definitively assess whether and how someone has truly grown from their struggle with adversity (E. Jayawickreme & Blackie, 2014). Such actual or perceived change in response to trauma is of clinical interest both as an antecedent to other trauma outcomes (e.g., Blix et al., 2016; Engelhard et al., 2015; Park et al., 2022) and as an outcome in its own right (e.g., Blix et al., 2016; Engelhard et al., 2015; Park et al., 2008; Schubert et al., 2016; Thomas et al., 2021)

The purpose of this paper is to investigate whether informants can corroborate self-reports of *posttraumatic growth* (PTG) and *posttraumatic depreciation* (PTD) in a nuanced way, extending beyond agreement on common cultural narratives about the impact of adversity. To the extent that close others can corroborate a person's reports of the levels, domains, and pattern of PTG/PTD, it suggests such self-reports may reflect genuine changes (Allport, 1937). We examined this question using the 42-item Posttraumatic Growth Inventory (PTGI-42; Baker et al., 2008) among survivors of ethnopolitical warfare, specifically the Sri Lankan Civil War (1983-2009, see Figure S1, page 14 in the Supplement). The PTGI (Tedeschi & Calhoun, 1996), is the predominant self-report posttraumatic growth measure (E. Jayawickreme & Blackie, 2014) and is commonly used in clinical research (e.g., see Schubert et al., 2016, Table 1), as well as specifically in studies of trauma following the Sri Lankan Civil War (e.g., Jayasuriya, 2014; McCaslin et al., 2009; O'Neill et al., 2021).

Corroboration of Posttraumatic Growth and Depreciation

Following the PTGI, posttraumatic growth is commonly measured in five domains (Tedeschi & Calhoun, 1996): 1) greater appreciation of life, 2) strengthened relationships, 3) increased personal strength, 4) deeper understanding of spiritual matters, and 5) new perceived opportunities. The observed relationship between specific domains of PTG and mental health has been documented only infrequently in studies of PTG, but existing evidence points to a possible ameliorative effect for domains associated with self-efficacy (e.g., personal strength; Fu et al., 2021) and a negative effect for domains associated with coping (e.g., spiritual matters; Frazier et al., 2009). In contrast, PTD denotes negative changes in the same domains (e.g., weaker social relationships). Assessments of PTG/PTD typically use retrospective reports, in which individuals report how they think they have changed, rather than calculating pre-post longitudinal change over time (Frazier et al., 2009, 2014; E. Jayawickreme & Blackie, 2014), due in large part to the inherent difficulty of predicting and studying traumatic events prospectively. Thus, such work—including this paper—focuses on *perceptions* of PTG and PTD.

Although rigorous longitudinal measurement strategies to complement, corroborate, or contradict retrospective self-reports are necessary (see Blackie et al., 2017; E. Jayawickreme et al., 2021), Helgeson (2010) proposed an alternative strategy to evaluate self-reports of PTG: corroboration through self-other agreement. Personality psychology has a long history of using self-other agreement to assess the validity of trait measures (Allport, 1937; Funder, 1993; Vazire & Carlson, 2010), and the same logic can be applied to posttraumatic change. Specifically, if there is self-other agreement on perceptions of PTG, the target's beliefs concerning their own PTG likely have some basis in shared social reality (Helgeson, 2010). Indeed, several studies offer evidence of moderate self-other agreement on perceived overall and domain-specific PTG

ratings (Blackie et al., 2015; McMillen & Cook, 2003; Shakespeare-Finch & Enders, 2008; Weiss, 2002), suggesting self-reports of PTG may correspond to actual changes. Though the features of PTG may vary across contexts (Weiss & Berger, 2010), changes in the domains associated with PTG (e.g., changes in self-sufficiency, philosophy of life, and relationships; Tedeschi & Calhoun, 1995) have been observed in Sri Lanka (e.g., the domains of family responsibility, religious faith, and community status; O'Neill et al., 2021). We would therefore expect that close others would corroborate targets' reports to the extent such changes are manifested in their everyday behavior (Helgeson, 2010).

However, examining self-other agreement as correlations between posttraumatic growth scales has at least two immediate weaknesses. First, it neglects the potential for more complex changes than mere "growth" following trauma—notably, potential simultaneous growth and depreciation in the same domain(s) of posttraumatic change (e.g., some relationships growing stronger while others grow weaker; Baker et al., 2008). Second, examination of self-other agreement on levels of PTG/PTD neglects more nuanced assessments of agreement, such as the pattern of changes across several domains.

To investigate corroboration of posttraumatic change considering these methodological issues, we examined four increasingly nuanced levels at which informants might corroborate self-reports: trait, domain, overall profile, and distinctive profile agreement (see Table 1 for overview). *Trait agreement* for PTG/PTD refers to agreement on *overall* scores combined across domains. This is a low bar for agreement: Raters must only agree on the general magnitudes of positive/negative changes, rather than agreeing about specific changes in targets. *Domain agreement* refers to agreement on scores for a specific domain of PTG/PTD. This is a more nuanced assessment: Raters must agree not just on the direction and magnitude of change (i.e.,

how much did the person grow or depreciate following trauma), but also on particular domain(s) in which such change occurred. *Profile agreement* (see Furr, 2008, 2009) refers to agreement on the relative ordering of domains in which targets have changed more and less. Agreement is high to the extent that participants and informants agree, for example, that the participant experienced the most PTG in the relationships dimension, followed by the spirituality dimension, and least in the personal strength dimension. This is a yet more nuanced assessment of agreement: Raters must agree not only on the specific domains in which individuals change, but also on the ranked pattern of change across several domains.

Profile agreement further distinguishes between *overall profile agreement*—the degree to which two ratings of a profile show similar patterns of raw scores—and *distinctive profile agreement*—the degree to which two profile ratings resemble each other in terms of how they differ from the sample's typical or normative profile (Furr, 2008). This latter, more stringent form of profile agreement lends further credibility to self-reports of PTG/PTD, as it suggests informants and targets are not merely endorsing the same generic socially desirable changes (e.g., endorsement of redemptive changes, McAdams, 2006). That is, distinctive profile agreement further controls for how normative a pattern of change is within the sample. Put another way, if people tend to (or are perceived to) change similarly in response to trauma, targets and informants might rely on such shared expectations when rating the target. Such shared patterns would contribute to estimates of overall profile agreement to the extent that many dyads use such expectations in their ratings. However, distinctive profile agreement avoids such shared patterns across dyads by comparing ratings of a target's distinctive profile—the profile of ways in which the targets' changes differ from the average profile in the sample. Thus, distinctive profile agreement constitutes strong evidence that raters are not merely relying on

shared assumptions about how people generally change, but rather are relying on perceptions specific to the target's idiosyncratic changes.

Our examination builds on similar work by Blackie and colleagues (2015), who examined self-other agreement on perceptions of posttraumatic growth and depreciation among US Americans who had experienced a traumatic event within the past 5 years. At the trait level, they found evidence of self-other agreement for PTD, but not for PTG, consistent with research indicating negative changes are more salient to observers (Helgeson, 2010). However, at the profile level, they observed both overall and distinctive profile agreement for PTG and PTD, suggesting informants were sensitive to both typical and idiosyncratic differences in targets' domains of growth and depreciation. Such agreement lends credibility to self-reported posttraumatic change. In the current study, we replicate and extend this approach by examining self-other agreement in trait, domain, and profile levels of PTG and PTD in a non-Western sample of individuals impacted by ethnopolitical violence: survivors of the Sri Lankan Civil War.

The Sri Lankan Civil War

The Sri Lankan Civil War (1983-2009) was a prolonged internal conflict resulting in the deaths of 100,000 people and the displacement of 800,000 (E. Jayawickreme et al., 2010; N. Jayawickreme et al., 2012; Vhurumuku et al., 2012). The conflict was primarily between the Sri Lankan government and the Liberation Tigers of Tamil Eelam, a Tamil separatist group (Vhurumuku et al., 2012). Of those displaced, many are internally displaced within Sri Lanka, resulting in comparable stressors as externally displaced refugees but without the United Nations' refugee resources (United Nations Commission on Human Rights, 1996). For example, in the context of these wartime and post-conflict stressors, female survivors have comparable

rates of depressive symptoms to American trauma survivors (N. Jayawickreme et al., 2017). In a qualitative post-war study, Somasundaram and Sivayokan (2013) found that individual, family, and cultural traumas and trauma responses included increased suicidality, maladaptive coping, break-up of family systems, corruption, and hopelessness. Relevant to the present study, however, these same authors also recorded culturally-relevant manifestations of PTG in the form of personal development, along with meaning-making practices of new art forms, non-traditional jobs/entrepreneurship, and re-emergence of traditional art forms. We sought to examine whether close others could corroborate self-reports of post traumatic changes among survivors of this civil war.

The Current Study

We extended Blackie and colleagues' (2015) examination of self-informant agreement on posttraumatic change to Sri Lankan Tamil civil war survivors. Specifically, we examined four levels of agreement: (1) agreement on target participants' relative standing on overall PTG and PTD compared to other participants (i.e., *trait agreement*), (2) agreement on the relative standing of target participants' PTG and PTD in each specific domain of PTG/PTD (i.e., *domain agreement*), (3) agreement on target participants' profile of scores across PTG/PTD domains (i.e., *overall profile agreement*), and (4) agreement on target participants' profile of scores across PTG/PTD domains, corrected for the average profile in the sample (i.e., *distinctive profile agreement*; Furr, 2008, 2009).

The current work thus expands on Blackie and colleagues' work by examining agreement at the domain level and in a non-Western sample. This latter goal is important because though the broad concept of PTG exhibits some cross-cultural validity (Splevins et al., 2010), and the PTGI has been widely used cross-culturally (see Weiss & Berger, 2010 for a review), it remains

unclear whether the domains and items of the PTGI adequately capture cultural variations in the valuing and specific domains of growth (Vázquez et al., 2014). Finally, this study's design (self- and other-ratings for both members of dyads) permits examination of forms of similarity not available in Blackie and colleagues' design (e.g., similarity between self-ratings within dyads). We focus on self-other agreement here, but present the full complement of similarity among ratings in the Supplement (pp. 5-10).

If self-reports of PTG/PTD reflect actual change experienced by survivors of trauma, we should see evidence of self-other agreement at all four increasingly nuanced levels (trait, domain, overall profile, and distinctive profile). Moreover, for profile agreement, we particularly should see evidence of distinctive profile agreement, which indexes agreement about the targets' idiosyncratic profiles of domain changes. However, if individuals rely on cultural scripts or stereotypes about change following trauma, we should not expect to find evidence of distinctive profile agreement (which controls for normativity). Given the lack of research examining corroboration of PTG/PTD in non-Western samples, we did not have a directional hypothesis and examined the questions described above in an exploratory fashion. This study was not preregistered.

Method

Two hundred Sri Lankan Tamil participants (100 pairs) were recruited from ten centers run by the Family Rehabilitation Centre (FRC), a Sri-Lankan-based nongovernmental organization in the northern and eastern provinces providing counseling and other services for internally-displaced individuals. Participants experienced many war-related stressors. The most common traumatic event, as recorded with the RESIST War Problems Scale (N. Jayawickreme et al., 2012), was seeing a loved one die (n = 140); the most common problem experienced as a

result of the war was the loss of material goods (n = 153); the most common psychological problem experienced was the idiom of distress "problems have made the heart broken" (n = 141). Participants were predominantly women (79%) and covered a wide age range of 15-70 years old (M_{age} = 35.6, SD = 12.8)

Sample size was limited by availability of resources. For trait and domain agreement, the key tests are essentially correlations between self- and other-ratings of the same target. Power analyses conducted in GPower 3.1.9.7 (Faul et al., 2007) indicate that 200 responses provide power of .80 at $\alpha = .05$ (two-tailed) to detect simple correlations of at least $|\rho| = .20$; 100 responses, at least $|\rho| = .27$. However, power for associations within dyads differs from simple correlations based on the intraclass correlations of ratings (Griffin & Gonzalez, 1995), making this an especially rough approximation of sensitivity. For profile agreement, the key test is of the mean correlation against zero, making this essentially a one-sample t-test against zero. Power analyses indicate that 72 correlations (the lowest number of dyads in the profile analyses) provide power of .80 at $\alpha = .05$ (two-tailed) to detect differences from zero of at least $d = .33$, and 98 correlations provide the same power for $d \geq .25$

Procedure

Initially, 100 participants were verbally recruited after completing sessions at the center. These participants were asked to bring a close significant other (e.g., spouse, partner, relative, close friend) who also completed the study as a participant (all close others were also civil war survivors), for a total of 200 participants in 100 dyads.[1] Participants were asked to read and sign a consent form and were told they could ask the researcher questions at any time. Trained

[1] The specific types of relationships between dyad members were not recorded. See Supplement for validation of the social closeness of dyad members.

healthcare professionals and staff were present to translate any questions and responses by the researcher. Additionally, participants were invited to participate after receiving treatment and told declining would not impact access to treatment. All procedures were approved by the Wake Forest University IRB.

Materials were presented in interview format in Tamil, participants' native language. Materials were translated by two bilingual research assistants (native Tamil speakers). Translation, lexical back-translation, and evaluation of item were recorded with translation monitoring forms (van Ommeren et al., 1999). Translators used these forms to systematically identify and correct irrelevant, incomprehensible, unacceptable, and incomplete elements of translations. Items were then back-translated again by two bilingual physicians and reviewed by the research team to ensure semantic equivalence. Finally, back-translations were translated into Tamil by a third pair of bilingual physicians.

All participants answered the corroboration portion of the surveys at a distance from their dyad partner to prevent influencing each other's responses. Participants were compensated about the equivalent of lunch in the region (100 Sri Lankan rupees, $1 US dollar) upon session completion. Previous research in this region used similar protocols (e.g., N. Jayawickreme et al., 2012).

Measures

All participants completed a questionnaire packet including self- and informant-rating forms of the 42-item Post-Traumatic Growth Inventory (Baker et al., 2008) and a demographic questionnaire. Participants also provided responses to additional measures not relevant to the current study, including measures of mental health, well-being, personality, and daily behaviors.

The 42-item Post-Traumatic Growth Inventory (PTGI-42; Baker et al., 2008) assesses the degree to which participants experienced specific changes due to an adverse life event on a 6-point Likert scale ranging from 0 ("I did not experience this change as a result of this event") to 5 ("I experienced this change to a very great degree as a result of this event").[2] Unlike the original PTGI, which only asks about positive changes, the PTGI-42 asks about both positive and negative changes—allowing respondents to endorse positive and negative changes in the same area (e.g., both "I have less of an appreciation for the value of my own life" and "I have a greater appreciation for the value of my own life"). The PTGI-42 therefore may represent a less biased view of growth (it allows equally for positive and negative changes) and may also better reflect the nuanced and paradoxical nature of posttraumatic change (e.g., someone simultaneously growing closer in some interpersonal relationships while losing other interpersonal relationships). We counterbalanced the order of PTG and PTD items. Within each of the five PTG and PTD subscales (Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life) we computed scores as the mean of items for participants who answered 50% or more of the respective items.

A subset of participants provided only partial responses to the PTGI-42. These partial answers were systematic: Participants answered either the PTG item *or* the corresponding PTD item for a given example of posttraumatic change. For self-reports, 37 (18.4%) participants answered only the PTG *or* PTD item for each set of questions; for informant reports, 22 (10.2%) did the same. The clear distribution of responses and otherwise-decent reliability of total PTGI-42 scores suggests these respondents answered the scale as if PTG and PTD items were two

[2] Two participants used out of bounds values (6 or 7), which we set to the maximum 5. Excluding these results instead does not substantially change conclusions.

components of a single scale (from depreciation to growth). That is, a respondent would decide for a given item if the target experienced either depreciation *or* growth, and then to what degree (on a 0-5 point scale). This implies an item's missingness relates to its score, making the data missing not at random (Enders, 2010) and precluding imputation. Because we required 50% or more of items within a subscale, participants who did not complete enough items had missing scores on the corresponding subscales (see Table 2 for valid *n*s on each subscale).

Data Analysis

All analyses were conducted in R version 4.1.0 (R Core Team, 2022) using the packages *lavaan* (Rosseel, 2012), *lme4* (Bates et al., 2015), *MBESS* (Kelley, 2017), *multicon* (Sherman, 2015), *psych* (Revelle, 2018), *semTools* (Jorgensen et al., 2018), *sjPlot* (Lüdecke, 2021a), *sjstats* (Lüdecke, 2021b), and *tidyverse* (Wickham et al., 2019). Syntax and data to reproduce analyses are available at https://osf.io/2hp7q.

Agreement at the Trait and Domain Levels of PTG/PTD

We examined trait and domain agreement for PTG and PTD using path models implemented in the *lavaan* package (Rosseel, 2012). We used actor-partner interdependence models (Cook & Kenny, 2005; Furr & Wood, 2013; Kenny et al., 2006) with actor and partner effects modeled as covariances, rather than regression paths (Figure 1). For both PTG and PTD, we examined separate models for total scores and each of the subdomains (12 models). Given no non-arbitrary features to distinguish dyad members, we analyzed dyads as indistinguishable (Furr & Wood, 2013; Kenny et al., 2006). That is, in both the baseline (null) and the tested models, we held constant intercepts and variances for the pairs of self-ratings and other-ratings, as well as the pairs of covariances between a) self- and informant-reports of targets (self-other agreement) and b) participants' ratings of themself and their partner (assumed similarity). All other paths were

freely estimated, we used pairwise deletion for missing data, and we standardized all variables prior to estimation. We calculated fit statistics against a baseline model with intercepts and variances fixed to equality across dyad members (see Peugh et al., 2013). Effectively, this approach estimates the correlations among the four observed variables (self- and other-ratings for each dyad member) after correcting for sampling differences in means and variances across dyad partners.

These correlations represent several different forms of similarity among self- and informant-reports. Correlation between self- and informant-reports for a target participant represent *self-other agreement* (the focus of this paper), or the extent to which participants and their partners tend to agree on how high/low one of them is on the trait. Correlations between a participant's self-rating and their rating of their partner represent *assumed similarity* between the self and the partner, that is, the extent to which participants tend to assign similar scores to themselves and their partner. Correlations between the self-reports of members of a dyad represent *actual similarity*, or the extent to which participants relatively high/low on the self-reported trait have dyad partners who are similarly high/low. Finally, correlations between informant ratings within a dyad represent what can be thought of as *impression similarity,* or similarity in how members of a dyad view each other. We focus on self-other agreement in this paper, but present results for the other forms of similarity in the Supplement.

Agreement at the Profile Level

To examine yet more nuanced agreement on posttraumatic change, we next analyzed profile agreement for participants' overall profiles for PTG and PTD. This approach examines two indices of the extent to which participants and their informants agree about the relative ranking of domain scores. *Overall profile similarity* is the correlation between two raw profiles

of PTG/PTD domain scores (i.e., profiles as the participants rated them). *Distinctive profile similarity* is the correlation between profiles adjusted for normativeness by residualizing profiles against the mean profile in the sample. Each of these similarity analyses involves correlating the two profiles of scores within each dyad, taking the mean of these correlations (after *Z*-transformation), and transforming the result into the mean Pearson correlation between profiles (akin to a fixed-effects meta-analysis across dyads). For more details, see Furr and colleagues (Furr, 2008; Furr & Wood, 2013).

Following Blackie et al. (2015), we separately examined agreement on profiles of PTG and PTD, requiring scores on 4 (of 5) domains to include a profile. We calculated agreement within each dyad using modified functions from the *multicon* package (Sherman, 2015; see Supplement). Self-other correlations were dependent (each dyad could contribute two correlations), so we tested mean self-other correlations against zero by fitting intercept-only multilevel models to the (*Z*-transformed) correlations between target- and informant-rated profiles, clustering observations by dyads. Model intercepts represent mean correlations between profiles, with standard errors adjusted for nonindependence within dyads. We transformed intercepts and confidence intervals into Pearson's *r* to maximize interpretability.

Results

Descriptive Statistics

We present descriptive statistics in Table 2 and correlations among scores in Supplemental Table 2. Of particular note, overall growth and overall depreciation were not correlated for either self- (r = -.03, p = .795) or informant-reports (r = .16, p = .080), consistent with the argument that growth and depreciation are independent, not simply opposite ends of a single "posttraumatic change" dimension (Baker et al., 2008).

We assessed internal consistency of overall and subscale scores using omega total (McDonald, 1999; implemented in *MBESS*, Kelley, 2017), a generalization of Cronbach's alpha without alpha's assumption of equal factor loadings (McNeish, 2018). Internal consistency was good for both self- and other-ratings of total PTG and PTD scores, but mixed for specific domains of PTG/PTD (Table 2). This low internal consistency for specific domains might suggest that this structure of domains does not capture posttraumatic change among Sri Lankan Tamil war survivors, a point we return to in the discussion.

Trait and Domain Agreement

For trait and domain agreement, we examined actor partner interdependence models for both overall and domain-specific PTG and PTD. Fit for each model was good, and we summarize results in Table 2.

Participants exhibited significant but modest self-other agreement on overall levels of both posttraumatic growth and depreciation ($r \sim .2$). That is, at the overall trait levels, participants and informants agreed somewhat about the presence of both positive and negative changes in a target's life. However, this is the least nuanced level of agreement we examined, so we next examined agreement on specific domains of change.

Participants exhibited mixed levels of agreement on domains of PTG/PTD, as agreement ranged from nonsignificant to small to moderate across the different domains. Targets and informants showed some agreement on growth in new possibilities, spiritual change, and appreciation of life and on depreciation in all domains except personal strength. Though some domains might be more outwardly visible and thus more amenable to corroboration (following Vazire, 2010), the overall magnitudes and inconsistency of agreement across domains raises

questions about whether informants reliably validate targets' domain-specific reports of posttraumatic change.

Profile Agreement

For profile agreement, we examined overall and distinctive profile agreement separately for PTG and PTD. Dyads exhibited significant overall profile agreement for growth, and marginally significant agreement for depreciation (Table 4). However, these overall profile agreement correlations were qualified by a lack of distinctive profile agreement: Neither growth nor depreciation showed significant self-other agreement for distinctive profiles (though agreement on depreciation was again marginal). In other words, similarity between profiles within dyads largely reflected normative patterns of perceived change across domains.

This large effect of normativeness could occur because raters relied on information other than observations of their partner, such as general cultural beliefs, in describing posttraumatic change in their partner. Alternatively, participants experienced the same general traumatic event, which might lead to more similar patterns of posttraumatic change than would occur in a heterogenous sample such as Blackie et al.'s (2015), limiting the distinctiveness of profiles. If so, individuals' raw profiles should more closely resemble the normative profile in this homogenous trauma sample than they do in a heterogenous sample, i.e., the average correlation between individual profiles and the normative profile should be higher in this sample.

To test this, we examined the average (*Z*-transformed) correlations between raw participant profiles and the normative profiles for both the current sample and the sample reported in Blackie et al. (2015). Results did not support the interpretation that survivors of the Sri Lankan Civil War experienced more similar changes to each other than did the participants in Blackie et al.'s heterogenous trauma sample. Correlations with normative profiles were not

higher among the Sri Lankan than US sample for either growth (Sri Lanka, r = .39 vs. US, r = .43) or depreciation (Sri Lanka, r = .23 vs. US, r = .48). This simple analysis is not conclusive, but we see no evidence the depressed distinctive profile agreement in the present study results from highly normative patterns of posttraumatic change.

Discussion

This study provided mixed evidence for corroboration of posttraumatic changes among survivors of the Sri Lankan Civil War. For both growth and depreciation, we observed some corroboration at the trait level, mixed corroboration across specific domains, and corroboration at the overall—but not distinctive—profile level. Furthermore, agreement was relatively modest, and participants did not agree on targets' idiosyncratic patterns of domain scores (i.e., distinctive profiles). In other words, pairs of Sri Lankan Tamil participants tended to agree somewhat on the overall level of growth and depreciation an individual had experienced, and also tended to agree on the specific pattern of growth and depreciation that individual had experienced across domains—as long as it was a common pattern amongst other Sri Lankan Tamil participants. Such results suggest perceived patterns of posttraumatic change among Sri Lankan Civil War survivors (at least as assessed via the PTGI-42) may reflect shared beliefs about how people tended to change as a result of the war, rather than insight into actual idiosyncratic changes that occurred in survivors. This undermines confidence in the PTGI-42 domain scores as cross-culturally applicable measures (at least in this context) of actual posttraumatic change.

These results among Sri Lankan Tamil participants differ somewhat from results among participants from the USA (Blackie et al., 2015), who showed both overall profile agreement (i.e., agreeing an individual showed patterns of growth/depreciation common in the sample) and distinctive profile agreement (i.e., agreeing an individual showed patterns of growth/depreciation

unique or distinctive in the sample). However, comparing profile correlations between Blackie and colleagues (2015) and the current study lends further nuance to this comparison. Distinctive profiles of depreciation showed the same magnitude of correlation (r = .16) between the two samples, but different significance conclusions. However, agreement on distinctive profiles of growth was notably different (r = .31 in Blackie et al., 2015, r = .00 here). Thus, the difference in sensitivity to idiosyncratic patterns of change across the two studies was not the same for growth and depreciation, and differences between the studies should be interpreted with caution.

The difference in results across these two contexts may reflect differences in both the type of and variation in adversity examined. Blackie et al. (2015) had individuals report a traumatic event that had personally happened to them, whereas this paper examined participants' responses to collective events that happened to communities. If informants knew many people responding to the same collective trauma, the uniqueness of a given target's changes may have been lost in broader patterns one saw across many community members. It is also possible participants in more individualistic cultural contexts (e.g., USA) are more attuned to distinctive individual patterns of change, whereas in more collectivistic cultural contexts, shared experiences of growth (or struggle) are more salient (Splevins et al., 2010).

Moreover, it is possible the current participants simply experienced more normative changes than did participants in Blackie and colleagues' sample, leaving little distinctiveness to report on. Unlike Blackie et al.'s participants, participants here were selected based on a common traumatic event, making their posttraumatic experiences more likely to resemble each other's. However, we did not see direct evidence that profiles of change more closely resembled the average profile in the Sri Lankan sample than in Blackie et al.'s sample. Thus, participants might not have been able to report idiosyncratic patterns of change because targets experienced

fairly normative patterns of posttraumatic change, but we did not observe evidence of this possibility.

Implications

Results suggest that the PTGI, as a measure of broad posttraumatic change (i.e., at the trait level), somewhat captures perceived change among Sri Lankan Tamil war survivors. Both growth and depreciation showed modest corroboration ($r \sim .2$), and internal consistency for the trait-level scores was decent (Table 2). By way of comparison, broad personality traits such as extraversion, conscientiousness, and emotionality often show self-other agreement correlations of .30 to .60 with well-acquainted others (Connelly & Ones, 2010; Funder et al., 1995; Kenny & West, 2010; Moshagen et al., 2019). Thus, researchers interested merely in direction of change may find some value in the PTGI in populations similar to that sampled here, though corroboration was not particularly strong.

However the lack of strong, consistent evidence for corroboration, the low reliability for domains, and the difficulty completing the PTGI, casts doubt on the validity of the PTGI-42 domains for cross-cultural uses. Though the PTGI has been widely used in cross-cultural contexts (see Weiss & Berger, 2010 for review), and includes domains overlapping with domains of functioning observed in Sri Lanka (N. Jayawickreme et al., 2009; O'Neill et al., 2021; see also Hirad et al., 2022), the original measure was developed in a sample of unmarried college students in the US who experienced potentially-traumatic personal events (plurality bereavement; 36%) within the previous 5 years (Tedeschi & Calhoun, 1996). The items on the PTGI (and by extension, the PTGI-42) and the measure structure were therefore derived from an US/Western cultural context and may not be the best representation of posttraumatic changes individuals notice or care about in other cultural contexts. For instance, the PTGI item "I have

developed a greater feeling of self-reliance" seems to reflect individualistic values of US culture, and may not reflect a highly relevant form of growth in more collectivistic cultures. Such cross-cultural differences in the structure of PTG/PTD might inflate or depress self-other agreement, weakening conclusions from the present results. Future work should take a more deliberate approach to understanding cross-cultural differences in the structure of posttraumatic change. In particular, the development of such cross-cultural measures should emphasize the use of prospective longitudinal designs (e.g., Frazier et al., 2009; E. Jayawickreme et al., 2021), given the methodological issues inherent in retrospective self-reports of posttraumatic change (see Blackie et al., 2017; Boals et al., in press; Frazier et al., 2014; E. Jayawickreme & Blackie, 2014).

Limitations and Constraints on Generality

The present findings should be interpreted in light of limitations related to, among other things, missing data, biases involved in other-reports, and low internal consistency.

First, as noted above, we observed nontrivial missing data in our sample, adding additional error variance to our analyses. Although missing data is problematic generally, this missing data seems to be connected to cross-cultural interpretations of the PTGI-42: Some participants declined to respond to all 42 items, instead answering either a growth item *or* a depreciation item for each example of posttraumatic change. Moreover, it is unclear whether individuals who chose to partly answer the PTGI-42 differ systemically from those who fully completed the measure. This presents the intriguing possibility that some cultural contexts may foster a more dialectical view of posttraumatic changes, in which seemingly contradictory positive and negative changes exist side-by-side (e.g., counting on other people more in some ways, and less in other ways); whereas other cultural contexts may foster a more straightforward

integration of positive and negative changes in which individuals mentally combine and average changes and ultimately report either a positive or negative shift (but not both) in a given domain. If so, unidimensional measures of posttraumatic change—those putting growth and depreciation on opposite ends of a single scale (e.g., Boals et al., in press; Boals & Schuler, 2018; Frazier et al., 2001; Marshall et al., 2015; Nordstrand et al., 2017)—may be more appropriate than multidimensional measures such as the PTGI-42 in Sri Lankan and similar cultural contexts.

Alternatively, this missingness may reflect difficulty with the PTGI items among Sri Lankan Tamil participants. We followed best practices for cross-cultural research, including multiple rounds of translation and administering surveys via interview. However, participants still frequently declined to provide responses to items. This may suggest the PTGI items—developed among US undergraduates (Tedeschi & Calhoun, 1996)—do not adequately capture perceptions of posttraumatic change among Sri Lankan Tamil participants. If so, further work is needed to understand cultural differences in manifestations of perceived posttraumatic change.

Second, although informants provide unique insight beyond self-report (Vazire, 2006), they are nonetheless prone to their own unique, systematic biases. Informants can mirror a subject's biases through shared interpersonal biases (Leising et al., 2010) or by reporting what the subject told them (Frazier et al., 2014). As each subject had only one informant, we cannot gauge the extent of such biases. However, previous research on PTG/PTD has shown low inter-informant agreement, suggesting positivity bias is unlikely to affect results (Blackie et al., 2015).

Third, we observed low internal consistency within several PTGI subscales (Table 2). Such unreliability might attenuate correlations among subscales, resulting in underestimation of agreement. If so, low agreement might result from measurement unreliability in this particular sample. However, the converse may also be true. If the PTGI-42 doesn't capture posttraumatic

change among Sri Lankan war survivors, we would not expect the measure to exhibit strong reliability in this sample. Moreover, this low reliability does not necessarily establish our results as lower bounds on agreement, as correlated errors that lead to low internal consistency can actually produce *overestimates* of the covariance between measures (Nimon et al., 2012).

Conclusion

In summary, our results suggest the PTGI does not function well as a nuanced measure of individualized posttraumatic change among Sri Lankan Tamil war survivors. Instead, scores may largely reflect shared perceptions and beliefs about the broad ways in which people change after trauma. Because informants likely knew many people responding to the same collective trauma (and indeed, informants were responding to it themselves), the uniqueness of a given target's changes may have been lost in broader patterns one saw across many community members. Further context- and culture-specific research is needed to explain why consistent domain agreement and distinctive profile agreement were not observed in the current study. Moreover, issues with noncompletion and internal consistency among this sample casts doubt on the reliability and validity of PTGI-42 domain scores as a measure of actual posttraumatic changes among Sri Lankan participants, though scores on overall growth and depreciation may function adequately. Finally, given the retrospective self-report nature of the measure, it remains unclear what proportion of the agreement reflects behavioral change experienced in daily life (E. Jayawickreme & Blackie, 2014). Together these results and open issues underscore the importance of studying posttraumatic change with culturally appropriate measures of posttraumatic change applied in longitudinal designs. Such methodologically rigorous research will help scientists answer critical questions about the nature and ubiquity of posttraumatic change across different populations.

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Table 1

Summary of Different Forms of Agreement on PTGI

Type of Agreement	Definition	Level of Specificity	Assessed by
Trait	Correlation between scores on overall posttraumatic growth or depreciation	Lowest. Raters must only agree on the magnitude of growth or depreciation, relative to the rest of the sample. This magnitude need not even be on the same domains of growth/depreciation	APIMs of self- and other-ratings on all PTGI growth, depreciation items
Domain	Correlation between scores on a particular domain of PTGI (relating to others, new possibilities, personal strength, spiritual change, appreciation of life)	Low. Raters must agree on the magnitude of growth or depreciation in the specific domains, relative to the rest of the sample.	APIMs of self- and other-ratings on PTGI items in each specific PTGI domain
Overall Profile	Mean of the correlations between self- and other-rated domain scores for each participant	High. Raters must agree on the rank ordering of change magnitudes across domains.	Profile analysis, overall correlations
Distinctive Profile	Mean of the correlations between domain-mean-residualized self- and other-rated domain scores for each participant	Highest. Raters must agree on the rank ordering of change magnitudes relative to the average ratings across the sample.	Profile analysis, distinctive correlations

Note. APIMs = Actor-Partner Interdependence Models; PTGI = Posttraumatic Growth Inventory

Table 2

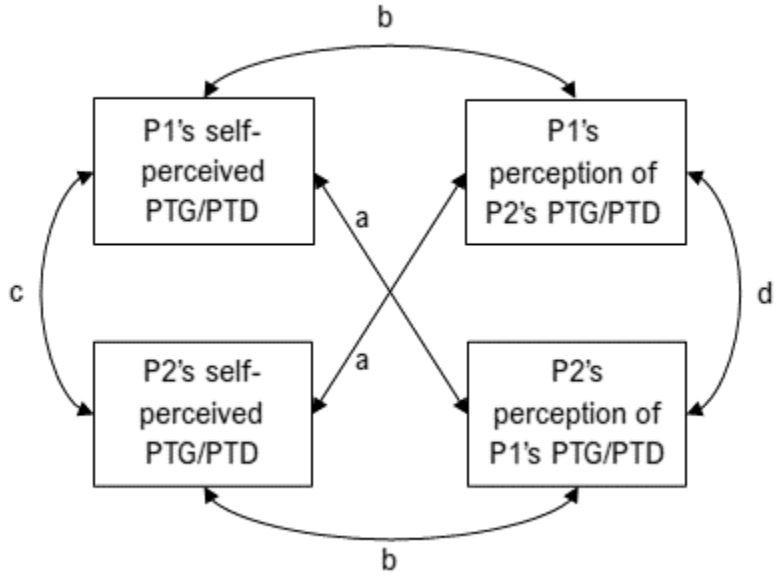
Descriptive Statistics for Posttraumatic Growth and Posttraumatic Depreciation Total and Domain Scores

	Self Ratings						Acquaintance Ratings					
	n	**ω**	***M***	***SD***	**min**	**max**	***n***	**ω**	***M***	***SD***	**min**	**max**
Growth												
Total	123	0.88	3.28	0.75	1.18	5.00	161	0.89	3.33	0.75	0.00	5.00
Relating	126	0.70	3.42	0.79	1.20	5.00	159	0.78	3.40	0.88	0.00	5.00
Possibilities	113	0.72	3.29	0.99	0.40	5.00	160	0.59	3.30	0.81	0.00	5.00
Strength	122	0.58	3.17	0.93	0.33	5.00	159	0.66	3.32	0.93	0.00	5.00
Spiritual	137	0.57	3.55	1.23	0.00	5.00	162	0.67	3.60	1.22	0.00	5.00
Appreciation	119	0.85	2.98	1.07	0.33	5.00	157	0.47	3.04	1.00	0.00	5.00
Depreciation												
Total	104	0.91	2.32	0.90	0.07	4.59	130	0.93	2.49	0.97	0.00	4.95
Relating	95	0.77	2.38	1.01	0.25	4.60	127	0.81	2.61	1.04	0.00	5.00
Possibilities	111	0.70	2.29	1.04	0.00	5.00	132	0.73	2.54	1.07	0.00	5.00
Strength	112	0.62	2.33	1.01	0.00	5.00	143	0.73	2.53	1.08	0.00	5.00
Spiritual	96	0.48	2.16	1.43	0.00	5.00	135	[0.66]	2.17	1.44	0.00	5.00
Appreciation	114	0.57	2.39	1.14	0.00	5.00	135	0.67	2.41	1.13	0.00	5.00

Note. For acquaintance ratings of depreciation in spiritual matters, omega could not be calculated because of a non-positive definite matrix (likely in part because it only has two items). We substituted Cronbach's alpha here, which is a special case of omega.

Figure 1

Path Model of Self- and Informant-Rated Perceptions of PTG/PTD



Note. PTG = posttraumatic growth, PTD = posttraumatic depreciation, a = Self-other agreement, b = assumed similarity, c = actual similarity, d = impression similarity. Paths denoted by the same letter were constrained to equality. P1 and P2 denote participants arbitrarily designated as 1 and 2 within a dyad.

Table 3

Summary of Self-other Agreement in Actor-Partner Interdependence Models Examining Total and Domain-level Posttraumatic Growth and Depreciation

			Model Fit				
Model	***n***	**Self-Other Agreement**	**χ^2**	***p*(χ^2)**	**CFI**	**RMSEA**	***p*(RMSEA < .05)**
Growth							
Total	92	.24** [.09, .39]	5.92	.432	1.000	<.001	.572
Relating	92	.09 [-.06, .24]	6.34	.386	0.975	.025	.528
Possibilities	92	.25** [.10, .40]	1.93	.926	1.000	<.001	.956
Strength	91	.02 [-.13, .17]	0.16	>.999	1.000	<.001	>.999
Spiritual	92	.30*** [.15, .46]	4.80	.570	1.000	<.001	.695
Appreciation	93	.15* [.01, .30]	7.43	.283	0.873	.051	.423
Depreciation							
Total	84	.22** [.06, .38]	1.20	.977	1.000	<.001	.986
Relating	85	.28*** [.12, .44]	6.80	.340	0.968	.040	.472
Possibilities	88	.16* [.01, .32]	6.76	.344	0.963	.038	.480
Strength	89	.14 [-.01, .29]	3.43	.753	1.000	<.001	.837
Spiritual	88	.22** [.07, .37]	1.76	.940	1.000	<.001	.964
Appreciation	91	.30*** [.15, .45]	7.75	.257	0.915	.057	.391

Note. Values in brackets denote 95% confidence intervals. There are 6 degrees of freedom for all χ^2 tests.

Table 4

Self-Other Agreement across Domains of Growth and Depreciation.

	Overall Profiles						Distinctive Profiles					
Agreement	**Intercept**	**LLCI**	**ULCI**	***t***	***df***	***p***	**Intercept**	**LLCI**	**ULCI**	***t***	***df***	***p***
Growth	**.24**	**.10**	**.37**	**3.33**	**97**	**.001**	.00	-.20	.21	0.03	97	.975
Depreciation	.34	-.00	.61	1.99	71	.050	.16	-.01	.32	1.91	71	.060

Note. Intercepts and confidence intervals have been transformed into Pearson's *r* for ease of interpretation. LLCI and ULCI denote upper and lower limits of 95% confidence intervals. Significant mean correlations bolded for emphasis. Sample size for each analysis is equal to the degrees of freedom plus 1.

Supplement to

Investigating Corroboration of Self-Perceived Posttraumatic Growth among Sri Lankan Tamil Survivors of Ethnopolitical Warfare Through Trait, Domain, and Profile Agreement Approaches

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Supplemental Method

Profile Analysis Computations

To analyze profile similarity, we modified the function `multicon::Profile.r` (Sherman, 2015) to account for the small number of cases in which self- and informant-rated profiles correlated perfectly within a dyad. Fisher's *r*-to-*z* conversion (used to take the mean of dyad profile correlations) is undefined for correlations of 1.00 or -1.00, so we added a "trim" argument to the function, which trimmed correlations of 1.00 and -1.00 to 0.999999 and -0.999999. We left the basic computations intact; our change merely improved the robustness of the function to edge cases. We provide syntax for the modified function in our analysis script at https://osf.io/2hp7q/

Social Closeness Measures

Participants completed two measures of social closeness: the Personal Acquaintance Measure (PAM; Starzyk et al., 2006) and a 2-item ad hoc "partner knowledge" measure.

The PAM consists of 18 items covering 6 domains of interpersonal closeness—duration of relationship, frequency of interaction, knowledge of the other person's goals, physical intimacy, the other person's self-disclosure, and familiarity with the person's social network. Items were rated on a 5-point scale from *Definitely False* to *Definitely True*, and scores were computed for the 6 domains and for overall scores, requiring more than 50% or more of items or that domain.

The partner knowledge measure consisted of "How much do you like your partner in this research study?" and "How well do you know your partner in this research study?" (1 – *Not at all*, to 4 – *Very Much*). We computed scores as the mean of these two items.

Supplemental Results

Social Closeness

As a basis for considering the closeness of dyad members, we compared PAM scores from this sample to a validation study of the PAM (Study 1 in Starzyk et al., 2006). In that study, participants rated someone they knew, randomly assigned to be a person of low, moderate, or high acquaintance to them. Participants in each condition were also given exemplars of the types of acquaintances, for example, high acquaintance exemplars were *a best friend*, *a romantic partner*, and *an immediate family member*. We compare means of PAM subscales from the current study to the moderate and high acquaintance groups in Table S 1 below.

Total scores on the PAM were comparable to the high acquaintance targets, though subscale scores varied in comparability between the moderate and high groups, perhaps due to cross-cultural differences (e.g., norms about self-disclosure) and types of relationships (e.g., participants in the validation study were college students).

For the ad hoc personal knowledge measure, participants scored an average of 3.73 (*SD* = 0.45) on a 1 to 4 scale. Between the PAM and personal knowledge scores, we feel confident that dyad members were of sufficient interpersonal closeness to warrant informant ratings of PTG/PTD.

Table S 1

S*cores on the Personal Acquaintance Measure Scales across Validation and Current Samples.*

PAM Scale	Validation, Moderate Acquaintance	Validation, High Acquaintance	Current Sample
Duration	3.74	9.28	9.38
Frequency of Interaction	7.80	6.14	8.62
Knowledge of Goals	8.56	10.19	8.60
Physical Intimacy	2.26	5.90	8.88
Self-disclosure	8.32	9.67	4.57
Social Network Familiarity	8.90	10.69	8.05
Total	39.58	51.87	48.06

Note. Scores for subscales can range from 0 to 12, scores for total scores can range from 0 to 72

Intercorrelations among PTG/PTD Facets

We present intercorrelations among ratings of PTG and PTD total and domain scores in Table S 2.

Other Forms of Similarity

We collected both self- and informant-ratings on PTG and PTD from each dyad member, enabling analysis of several forms of similarity that may be of interest to researchers (see Figure 1 in main text): similarity in a) self- and informant-reports for a target participant (*self-other agreement*), b) target ratings of themselves and their partner (*assumed similarity*), c) self-ratings for members of dyads (*actual similarity*), and d) informant-ratings for members of dyads (*impression similarity*). In the main text, we focus on self-other agreement, which is most relevant to our substantive questions. We present here the results of equivalent analyses examining all four of these forms of similarity. As with self-other agreement in the main text, we report each form of similarity for levels of a) overall and b) domain-specific traits, as well as for c) profiles across domains.

Overall Traits

For overall levels of PTG/PTD and specific domains thereof, we examined similarity using the actor-partner interdependence models (Cook & Kenny, 2005; Furr & Wood, 2013; Kenny et al., 2006) described in the main text. We report full results of these APIM models in Table S 3.

As reported in the main text, we observed significant self-other agreement for both growth and depreciation, though correlations were not particularly strong. Other forms of agreement were not consistent between positive and negative changes. For growth, assumed similarity was also significant and comparable in magnitude to self-other agreement. That is,

participants tended to rate themselves and their dyad partner similarly. However, for depreciation, actual similarity and impression similarity were significant and of similar magnitude to self-other agreement. That is, both members of a dyad tended to rate themselves similarly, and also to rate their dyad partner similarly.

Together, at the overall trait levels, participants and their informants slightly agreed about the presence of both positive and negative changes in a target's life, assumed that their partner had experienced similar growth to themselves, and showed evidence that members of dyads had similar patterns of depreciation and similar expectations of their partner's depreciation. However, this is the least nuanced level of agreement we examined, so we next examined agreement on specific domains of posttraumatic change.

Domains

Participants exhibited mixed degrees of self-other agreement on domains of PTG/PTD. Targets and informants showed some self-other agreement on both growth (3/5 domains) and depreciation (4/5 domains). Participants also showed some evidence of assumed similarity between the extent of one's own growth and one's partner's growth (though not for depreciation).

Consistent with the pattern for overall growth, several domains of growth exhibited assumed similarity, but this did not hold for domains of depreciation. That is, participants assumed that their partner experienced positive changes to a similar extent that they themselves did, but did not exhibit this pattern for negative changes. Dyads did not exhibit consistent patterns of actual and impression similarity across domains, so we do not interpret results strongly.

We observed some evidence that survivors of the Sri Lankan Civil War could corroborate levels of change in specific domains, but we did not observe strong evidence of other patterns of similarity among self- and informant-ratings.

Table S 2

Correlations Among PTGI-42 Total and Domain Scores for Self and Informant Ratings

Variable	PTG Total	PTD Total	PTG RELAT	PTG POSS	PTG STR	PTG SPIR	PTG APPR	PTD RELAT	PTD POSS	PTD STR	PTD SPIR	PTD APPR
PTG Total		-.03	.84***	.86***	.84***	.60***	.77***	-.01	.01	.07	-.04	-.11
PTD Total	.16		-.08	.06	.04	.02	.04	.92***	.89***	.88***	.74***	.72***
PTG RELAT	.89***	.11		.60***	.59***	.42***	.54***	-.15	-.05	-.02	-.12	.02
PTG POSS	.84***	.19*	.63***		.73***	.44***	.62***	.10	.07	.07	.12	-.17
PTG STR	.80***	.20*	.62***	.67***		.38***	.59***	.07	.00	.09	.10	-.08
PTG SPIR	.78***	.03	.67***	.57***	.57***		.36***	.04	.02	.12	-.12	.05
PTG APPR	.69***	.06	.54***	.49***	.40***	.46***		.04	.02	.07	.06	-.17
PTD RELAT	.17	.93***	.11	.23**	.25**	.01	.07		.72***	.79***	.68***	.57***
PTD POSS	.08	.90***	.05	.14	.16	-.03	-.02	.78***		.75***	.51***	.54***
PTD STR	.10	.86***	.13	.16	.09	.03	.02	.75***	.77***		.57***	.55***
PTD SPIR	.11	.79***	.06	.16	.11	-.08	.15	.73***	.66***	.54***		.43***
PTD APPR	.13	.79***	.09	.12	.10	.06	.15	.66***	.66***	.60***	.61***	

Note. Pearson correlations above the diagonal are for self-ratings, below the diagonal, for informant ratings. PTGI-42 = Posttraumatic Growth Inventory-42; PTG = posttraumatic growth; PTD = posttraumatic depreciation; RELAT = relationships; POSS = new possibilities; STR = personal strength; SPIR = spiritual change; APPR = appreciation of life. * $p < .05$, ** $p < .01$, *** $p < .001$

Table S 3

Summary of Actor-Partner Interdependence Models Examining Self and Other Ratings on Total and Domain-level Post-Traumatic Growth and Depreciation

Model	*n*	Self-Other Agreement	Assumed Similarity	Actual Similarity	Impression Similarity	Model Fit
Growth						
Total	92	**.24** ** **[.09, .39]**	**.23** ** **[.08, .39]**	.15 [-.06, .35]	.11 [-.09, .32]	$\chi^2(6) = 5.92$, $p = 0.432$; CFI = 1; RMSEA = 0, $p = 0.572$
Relating	92	.09 [-.06, .24]	**.26** *** **[.11, .41]**	-.08 [-.28, .12]	.16 [-.05, .36]	$\chi^2(6) = 6.34$, $p = 0.386$; CFI = 0.975; RMSEA = 0.025, $p = 0.528$
Possibilities	92	**.25** ** **[.10, .40]**	**.15** * **[.00, .30]**	.10 [-.10, .31]	.07 [-.13, .27]	$\chi^2(6) = 1.93$, $p = 0.926$; CFI = 1; RMSEA = 0, $p = 0.956$
Strength	91	.02 [-.13, .17]	.14 [.00, .29]	.19 [-.02, .40]	.08 [-.12, .29]	$\chi^2(6) = 0.16$, $p = 1$; CFI = 1; RMSEA = 0, $p = 1$
Spiritual	92	**.30** *** **[.15, .46]**	.13 [-.03, .28]	**.23** * **[.02, .43]**	**.21** * **[.00, .42]**	$\chi^2(6) = 4.80$, $p = 0.570$; CFI = 1; RMSEA = 0, $p = 0.695$
Appreciation	93	**.15** * **[.01, .30]**	**.19** ** **[.05, .34]**	.18 [-.03, .38]	-.03 [-.23, .18]	$\chi^2(6) = 7.43$, $p = 0.283$; CFI = 0.873; RMSEA = 0.051, $p = 0.423$
Depreciation						
Total	84	**.22** ** **[.06, .38]**	-.07 [-.22, .09]	**.25** * **[.03, .46]**	**.29** * **[.07, .51]**	$\chi^2(6) = 1.20$, $p = 0.977$; CFI = 1; RMSEA = 0, $p = 0.986$
Relating	85	**.28** *** **[.12, .44]**	-.05 [-.21, .10]	.10 [-.11, .31]	**.29** ** **[.07, .51]**	$\chi^2(6) = 6.80$, $p = 0.34$; CFI = 0.968; RMSEA = 0.04, $p = 0.472$
Possibilities	88	**.16** * **[.01, .32]**	.05 [-.10, .21]	**.39** *** **[.17, .61]**	.20 [-.01, .41]	$\chi^2(6) = 6.76$, $p = 0.344$; CFI = 0.963; RMSEA = 0.038, $p = 0.480$
Strength	89	.14 [-.01, .29]	.03 [-.12, .18]	**.33** ** **[.11, .55]**	.19 [-.02, .39]	$\chi^2(6) = 3.43$, $p = 0.753$; CFI = 1; RMSEA = 0, $p = 0.837$
Spiritual	88	**.22** ** **[.07, .37]**	-.03 [-.19, .12]	.10 [-.11, .31]	**.51** *** **[.28, .75]**	$\chi^2(6) = 1.76$, $p = 0.94$; CFI = 1; RMSEA = 0, $p = 0.964$
Appreciation	91	**.30** *** **[.15, .45]**	-.08 [-.23, .07]	.11 [-.09, .32]	.08 [-.13, .28]	$\chi^2(6) = 7.75$, $p = 0.257$; CFI = 0.915; RMSEA = 0.057, $p = 0.391$

Note. Values in brackets denote 95% CIs around parameter estimate (correlation). Significant parameters in bold for emphasis *** $p < .001$, ** $p < .01$, * $p < .05$

Profile Analysis

Finally, we examined intercorrelations among profiles of self- and informant-reported change across domains. As noted in the main text, we tested mean self-other agreement against zero by fitting intercept-only multilevel models to the (*Z*-transformed) profile correlations between target and informant-rated profiles, clustering observations by dyads. Intercepts from these models represent mean correlations between profiles, with standard errors adjusted for nonindependence within dyads. We used the same approach for assumed similarity (i.e., profile correlations between a participant's ratings of themselves and their partner). However, actual similarity and impression similarity (associations between pairs of self- and other-ratings, respectively, within each dyad) were independent observations, so we tested these mean correlations against zero using a basic linear model instead of a multilevel model. For all forms of agreement, we computed test statistics and standard errors using *Z*-transformed correlations, but we transformed intercepts and confidence intervals back into Pearson's *r* to maximize interpretability (Table S 4).

Considering both growth and depreciation, dyads exhibited significant overall profile agreement for several forms of agreement and marginally significant agreement for a few others, with the strongest agreement for actual and impression similarity (though these correlations are based on smaller *n* values, making point estimates less trustworthy; Schönbrodt & Perugini, 2013). However, these overall profile agreement correlations were qualified by distinctive profile correlations. All forms of profile agreement were attenuated in the distinctive profile correlations, and most were nonsignificant. In other words, similarity among rating profiles within dyads largely reflected normative patterns of change across domains, and raters were not sensitive to idiosyncratic ways in which these changes had manifested in targets. As noted in the

Discussion, it is unclear whether such patterns suggest that participants relied on cultural stereotypes about posttraumatic change, or whether individuals' changes actually tended to follow a normative pattern.

Table S 4

Profile Agreement on Posttraumatic Growth and Depreciation

	Overall Profiles						Distinctive Profiles					
Agreement	**Intercept**	**LLCI**	**ULCI**	***t***	***df***	***p***	**Intercept**	**LLCI**	**ULCI**	***t***	***df***	***p***
Growth												
Self-Other Agreement	**.24**	**.10**	**.37**	**3.33**	**97**	**.001**	.00	-.20	.21	0.03	97	.975
Assumed Similarity	**.31**	**.17**	**.43**	**4.33**	**97**	**<.001**	.16	-.06	.36	1.44	98	.154
Actual Similarity	.36	-.09	.69	1.63	40	.110	.06	-.21	.32	0.46	40	.650
Impression Similarity	**.47**	**.20**	**.68**	**3.26**	**64**	**.002**	.08	-.13	.29	0.77	64	.447
Depreciation												
Self-Other Agreement	.34	-.00	.61	1.99	71	.050	.16	-.01	.32	1.91	71	.060
Assumed Similarity	.28	-.01	.52	1.95	70	.055	**.20**	**.06**	**.34**	**2.82**	**70**	**.006**
Actual Similarity	.62	-.19	.93	1.63	26	.116	.03	-.21	.26	0.24	26	.812
Impression Similarity	**.68**	**.29**	**.88**	**3.14**	**47**	**.003**	**.25**	**.06**	**.43**	**2.56**	**47**	**.014**

Note. Intercepts and confidence intervals have been transformed into Pearson's *r* for ease of interpretation. LLCI and ULCI denote upper and lower limits of 95% confidence intervals. Significant mean correlations bolded for emphasis.

Figure S1

World Map Highlighting Location of Sri Lanka

Note. Map created with mapchart.net

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