

post-Traumatic Growth Following EMDR Therapy Versus Collective Post-Traumatic Growth Among the People of Gaza.

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ABSTRACT

Post-Traumatic Growth (PTG) is a multidimensional construct that refers to the positive psychological changes that may emerge following exposure to traumatic experiences. This work examines PTG from both an individual therapeutic perspective—through Eye Movement Desensitization and Reprocessing (EMDR)—and a collective socio-cultural perspective, as illustrated by the experience of the people of Gaza.

Within EMDR therapy, PTG is conceptualized as a structured, phase-based process grounded in the Adaptive Information Processing (AIP) model. Traumatic memories, initially stored in a fragmented and emotionally charged form, are reprocessed through bilateral stimulation, leading to decreased emotional reactivity, cognitive restructuring, and integration of the traumatic experience into a coherent autobiographical narrative. Neurobiologically, EMDR facilitates reduced amygdala hyperactivation, enhanced prefrontal cortical regulation, and restored hippocampal functioning, thereby supporting emotional regulation, meaning reconstruction, and the development of personal strength, resilience, and improved interpersonal relationships.

In contrast, PTG in the context of Gaza emerges as a collective phenomenon shaped by chronic and repeated exposure to war, siege, and political violence. Here, growth extends beyond individual cognition and emotional regulation to encompass shared identity, collective memory, cultural narratives, and social cohesion. National identity, religious beliefs, and communal solidarity function as meaning-making frameworks that transform suffering into collective dignity, resistance, and existential purpose. Empirical research in conflict settings demonstrates that sustained trauma does not preclude growth; rather, it may foster communal resilience, social bonding, and shared moral values that mitigate the psychological impact of adversity.

Physiologically and emotionally, collective PTG is supported by social regulation of affect, communal coping mechanisms, and adaptive emotional regulation strategies. Factors such as social support, collective emotion sharing, and cultural rituals contribute to improved autonomic regulation and psychological resilience, reflecting parallels with individual-level neurobiological mechanisms observed in EMDR, including reduced stress-system activation and enhanced emotional flexibility.

A comparative analysis highlights both divergence and convergence between EMDR-based individual PTG and collective PTG in Gaza. EMDR operates within a structured, safe, and therapeutic context, producing measurable individual growth through targeted neurocognitive reprocessing. Collective PTG, however, evolves within an ongoing traumatic environment and is sustained through cultural, social, and historical processes rather than clinical intervention. Despite these differences, both forms of PTG share core mechanisms: meaning reconstruction, emotional regulation, identity transformation, and the conversion of trauma from a source of threat into a resource for psychological and social growth.

In conclusion, PTG should be understood as a dynamic, multi-level process that integrates neurobiological, psychological, social, and cultural dimensions. Whether facilitated through individual psychotherapy or collective resilience in contexts of chronic conflict, PTG reflects the human capacity to transform profound suffering into personal strength, shared meaning, and enduring resilience..

Keywords: *Post-Traumatic Growth, Eye Movement Desensitization and Reprocessing (EMDR), Complex Post-Traumatic Stress Disorder (CPTSD), people of Gaza*

1. INTRODUCTION

Post-Traumatic Growth (PTG) represents a complex psychological phenomenon that goes beyond mere recovery from trauma to include positive transformations at the psychological, cognitive, emotional, and social levels. This concept has

received considerable attention in contemporary psychological research, as it provides insight into how traumatic experiences can be transformed into resources that foster personal strength, meaning-making, and improved social relationships (Tedeschi & Calhoun, 2004). Post-traumatic growth is considered a dynamic process influenced by multiple factors, including individual experience, social support, cultural context, and individuals' neurobiological and physiological characteristics

Within the therapeutic context, Eye Movement Desensitization and Reprocessing (EMDR) stands out as one of the effective interventions that can facilitate acquired growth at the individual level by reprocessing traumatic memories, regulating emotions, and restructuring negative beliefs (Shapiro, 2018). The effectiveness of EMDR relies on bilateral stimulation, which enhances neuroplasticity, promotes balance among the amygdala, hippocampus, and prefrontal cortex, and enables the integration of traumatic experiences within a safe temporal context (van der Kolk, 2015). This neurophysiological pathway allows the transformation of individual traumatic experiences into sources of strength and resilience, constituting therapeutically acquired growth.

At the collective level, collective growth among populations affected by chronic conflict, such as the people of Gaza, represents a unique model of PTG manifestations. Here, growth is not limited to individual dimensions but extends to cultural, social, and collective contexts, where national identity, religious values, and social traditions play a central role in reinterpreting suffering and transforming it into collective meaning, strengthening social cohesion, and enhancing communal resilience (Brooks et al., 2024; Veronese et al., 2017). From a neurobiological and physiological perspective, this cultural and collective interaction contributes to emotional regulation, reduction of amygdala hyperactivity, and strengthening neural networks associated with meaning-making and social engagement (Khattak et al., 2024).

This topic gains additional importance when considering Complex Post-Traumatic Stress Disorder (CPTSD), which emerges following prolonged and chronic exposure to trauma and is characterized by emotional regulation disturbances, impaired self-concept, and difficulties in interpersonal functioning (Cloitre et al., 2012). In such cases, EMDR demonstrates a greater capacity to promote acquired growth at the neurobiological, physiological, and psychological levels, while the cultural and collective context provides a framework for moral and collective growth, reflecting an interaction between individual and collective levels in coping with trauma.

1. The Concept of Post-Traumatic Growth (PTG)

Post-Traumatic Growth (PTG) refers to the positive psychological changes that individuals may experience as a result of cognitive and emotional struggle with highly challenging or traumatic life events. This growth is not understood as a direct consequence of the trauma itself, but rather as the outcome of the psychological processes involved in attempting to comprehend the event and reorganize its meaning. The concept was systematically developed in the 1990s by Tedeschi and Calhoun (1996), who emphasized that trauma may serve, for some individuals, as a catalyst for positive psychological transformation that surpasses pre-trauma levels of functioning.

This framework clearly distinguishes between recovery and growth: recovery refers to symptom reduction and a return to prior equilibrium, whereas post-traumatic growth reflects a structural transformation in one's perception of the self, the world, and life (Tedeschi & Calhoun, 2004). Accordingly, growth does not imply the absence of psychological distress or the disappearance of PTSD symptoms, but rather may coexist with them. Numerous studies have shown that individuals may report significant distress alongside positive growth experiences, reflecting the complex and non-linear nature of this process.

From a theoretical perspective, PTG is grounded in the assumption that traumatic events disrupt core beliefs about the world as a safe place and the self as capable of control and predictability. This perspective aligns with Janoff-Bulman's (1992) theory of shattered assumptions, which posits that trauma leads to the collapse of deeply held cognitive schemas, forcing individuals into a process of cognitive and existential reconstruction. Within this framework, the search for meaning and the reinterpretation of traumatic experiences become central mechanisms in the emergence of post-traumatic growth.

The classical literature identifies five core dimensions through which PTG manifests. The first dimension involves a deeper appreciation of life, characterized by heightened awareness of its value and fragility. The second dimension concerns improved relationships with others, including deeper social bonds, increased empathy, and emotional openness. The third dimension reflects an enhanced sense of personal strength, or the perception of increased ability to cope with future challenges. The fourth dimension involves the recognition of new possibilities or life paths that were not envisioned prior to the trauma. The fifth dimension pertains to spiritual or existential changes, which may include reevaluations of values, faith, or the meaning of human suffering (Tedeschi & Calhoun, 1996).

These dimensions have been supported by extensive empirical research involving diverse samples, including war survivors, victims of violence, individuals with chronic illnesses, and those who have experienced sudden loss or natural disasters (Calhoun & Tedeschi, 2006). To assess PTG, Tedeschi and Calhoun developed the Posttraumatic Growth Inventory (PTGI), which has demonstrated strong psychometric properties and has been widely used across cultures (Tedeschi & Calhoun, 1996). Findings indicate that a substantial proportion of individuals report growth in one or more PTG dimensions, despite the persistence of certain traumatic symptoms.

It is important to emphasize that post-traumatic growth is not synonymous with resilience. Resilience refers to the ability to maintain or regain previous levels of functioning in the face of adversity, whereas growth implies a qualitative transformation that exceeds this level (Tedeschi & Calhoun, 2004). Moreover, growth does not occur automatically or inevitably; it is influenced by several factors, including trauma severity, social support, narrative processes, coping strategies, and the cultural context that shapes the meaning of traumatic experiences.

Within positive psychology, PTG is viewed as an expression of the transformative potential of human suffering, whereby pain can become a foundation for rebuilding the self with greater depth and awareness. However, contemporary literature cautions against glorifying trauma or assuming that suffering inevitably leads to growth, emphasizing instead that PTG represents one possible adaptation pathway among several following exposure to traumatic events (Calhoun & Tedeschi, 2006).

2. Complex Post-Traumatic Stress Disorder (CPTSD)

Complex Post-Traumatic Stress Disorder (CPTSD) represents a conceptual and diagnostic extension of Post-Traumatic Stress Disorder (PTSD). It refers to a more severe and complex condition arising from prolonged and repeated exposure to interpersonal trauma, often occurring in contexts where escape or protection is not possible, such as long-term domestic violence, repeated sexual abuse, torture, human trafficking, or severe childhood neglect (Herman, 1992).

This concept was first systematically articulated in the work of Judith Herman, who observed that many survivors of chronic trauma did not fit the classical clinical presentation of PTSD despite experiencing profound suffering. She argued that complex trauma not only produces conditioned fear responses but also leads to pervasive disturbances in self-regulation, affect, relationships, and identity (Herman, 1992).

Unlike PTSD, which is typically associated with a single or time-limited traumatic event, CPTSD is linked to cumulative, prolonged trauma occurring within relationships characterized by power imbalance and control. This chronic nature of trauma results in deep impacts on psychological and personality development, particularly when exposure occurs early in life (Courtois & Ford, 2009).

CPTSD was formally recognized in the International Classification of Diseases (ICD-11) issued by the World Health Organization, where it is diagnostically distinguished from PTSD and acknowledged as a distinct clinical entity (WHO, 2018). According to this classification, CPTSD includes the core PTSD symptoms—re-experiencing, avoidance, and a persistent sense of threat—alongside additional symptoms referred to as Disturbances in Self-Organization (DSO).

DSO encompasses three primary domains. The first involves affect dysregulation, marked by severe difficulties in emotional regulation, such as intense anger, emotional outbursts, or, conversely, emotional numbing and dissociation. The second domain relates to a persistent negative self-concept, characterized by chronic feelings of shame, guilt, worthlessness, and inner defeat. The third domain concerns disturbances in interpersonal relationships, where individuals struggle to form and maintain safe, stable relationships due to mistrust and fears of closeness or abandonment (WHO, 2018).

Research suggests that these symptoms should not be understood merely as a quantitative extension of PTSD, but rather as a qualitative transformation in personality structure and psychological organization. Complex trauma affects attachment systems, emotion regulation, memory, and identity, rendering CPTSD comparable in complexity to personality disorders, without being reducible to them (Cloitre et al., 2013).

Clinically, individuals with CPTSD exhibit higher levels of functional impairment and comorbid conditions—such as depression, anxiety, dissociation, and self-harming behaviors—compared to those with PTSD alone (Karatzias et al., 2017). Studies also indicate that traditional PTSD-focused treatments may be insufficient unless they address the chronic nature of trauma and self-organization disturbances.

Contemporary therapeutic models emphasize that understanding CPTSD requires a phased and integrative approach, beginning with safety and emotional stabilization, followed by trauma memory processing, and ultimately identity and relational reconstruction (Courtois & Ford, 2009). This framework reflects the nature of CPTSD as a disorder affecting the whole person rather than a discrete set of fear-based symptoms.

Accordingly, CPTSD can be conceptualized as a developmental–traumatic disorder in which trauma functions as an organizing force shaping psychological development, identity, and self-narrative. This understanding is essential when comparing CPTSD with concepts such as post-traumatic growth or when examining the effects of specialized therapeutic interventions, including memory-based adaptive processing therapies.

3. Eye Movement Desensitization and Reprocessing (EMDR)

Eye Movement Desensitization and Reprocessing (EMDR) is an evidence-based psychotherapy developed by Francine Shapiro in the late 1980s and is primarily used in the treatment of trauma-related disorders, particularly PTSD and CPTSD (Shapiro, 1989, 2001). This therapy is based on the core assumption that trauma-related psychological disorders arise from the maladaptive processing of traumatic experiences, which remain stored in memory in an isolated and emotionally charged

form.

EMDR is grounded in the Adaptive Information Processing (AIP) model, which posits that the brain has an innate capacity to process experiences and integrate them into adaptive memory networks. Severe or repeated trauma, however, may disrupt this process, resulting in traumatic memories being stored in their original form, accompanied by intense emotions, bodily sensations, and negative self-beliefs (Shapiro, 2001). When these memories are later triggered, trauma symptoms emerge as though the event were occurring in the present.

Within this model, EMDR does not aim to erase traumatic memories but rather to reprocess and adaptively integrate them into functional memory networks, thereby reducing their emotional charge and reconnecting them with more balanced beliefs about the self and the world (Shapiro, 2018). This cognitive–emotional transformation is central to symptom reduction and the facilitation of adaptation and growth.

EMDR follows a standardized eight-phase protocol that ensures structured and safe intervention. These phases include history-taking and treatment planning, preparation focused on safety and emotional regulation skills, assessment, desensitization through bilateral stimulation (such as eye movements), installation of positive cognition, body scan, closure, and reevaluation (Shapiro, 2001). This phased structure reflects a deep understanding of trauma and respect for the individual's capacity for tolerance.

Multiple empirical studies have demonstrated the effectiveness of EMDR in reducing PTSD symptoms compared to waitlist controls and supportive therapies, as well as its equivalence to trauma-focused cognitive behavioral therapies (Bisson et al., 2007; van der Kolk et al., 2007). EMDR has been formally endorsed by international organizations, including the World Health Organization and the American Psychiatric Association, as an evidence-based treatment for trauma-related disorders (WHO, 2013).

In the context of complex trauma, EMDR is viewed as a flexible and adaptable treatment when integrated into a phased approach that addresses self-regulation disturbances. The literature indicates that working with CPTSD requires extended preparation and stabilization phases before trauma memory processing to avoid retraumatization or dissociation (Courtois & Ford, 2009). Recent studies suggest that EMDR can improve emotional regulation, self-concept, and interpersonal functioning—core domains affected in CPTSD (Cloitre et al., 2012).

More broadly, EMDR's impact extends beyond symptom reduction to include the reconstruction of self-narrative and psychological identity. Through adaptive reprocessing, the position of trauma within the individual's life story shifts from a dominant, identity-fragmenting event to a painful but integrated and comprehensible experience. This narrative transformation helps explain the association between EMDR and indicators of post-traumatic growth, particularly changes in negative self-beliefs and enhanced personal strength (Tedeschi & Calhoun, 2004; Shapiro, 2018).

Thus, EMDR can be understood as a therapeutic framework that goes beyond symptom-focused intervention to encompass memory reorganization and meaning reconstruction, making it particularly well-suited for addressing complex trauma where memory, identity, emotional regulation, and relationships are deeply intertwined.

4. Post-Traumatic Growth as an Acquired Context Through EMDR Therapy

Within the therapeutic framework, post-traumatic growth is conceptualized as an acquired psychological process that emerges through the reorganization of traumatic experience within a safe therapeutic context, rather than as an automatic outcome of trauma itself. In this regard, EMDR stands out as one of the therapeutic approaches most aligned with the concept of growth, given its reliance on adaptive reprocessing of traumatic memories, allowing for shifts in meaning and trauma-related beliefs (Shapiro, 2001, 2018).

According to the Adaptive Information Processing (AIP) model, unprocessed traumatic memories remain stored in isolated, emotionally charged memory networks, accompanied by negative self-beliefs such as helplessness, constant danger, or worthlessness. These cognitive–emotional structures hinder not only recovery but also the potential for psychological growth (Shapiro, 2001). Through bilateral reprocessing, these memories are reintegrated into adaptive memory networks, enabling the emergence of more balanced and positive beliefs about the self and the world.

In this framework, post-traumatic growth is not a direct or explicitly taught goal within EMDR, but rather a structural byproduct of the reprocessing process. Tedeschi and Calhoun emphasized that growth arises when individuals reconstruct their shattered core assumptions through a structured cognitive–emotional struggle (Tedeschi & Calhoun, 2004). EMDR facilitates this struggle within a controlled therapeutic environment by activating traumatic memories in a safe context that allows reinterpretation and integration without emotional flooding.

Clinical studies support this perspective, demonstrating that EMDR not only reduces PTSD symptoms but is also associated with improvements in domains that directly overlap with PTG dimensions, such as enhanced personal strength, improved relationships, and changes in life perspective and self-concept (van der Kolk et al., 2007; Horesh et al., 2016). These findings

indicate that therapeutic transformation extends beyond symptom relief to encompass identity and self-narrative restructuring.

In cases of complex trauma, post-traumatic growth becomes closely tied to the therapeutic structure itself. Individuals with CPTSD often experience profound disturbances in self-concept and emotional regulation, limiting the possibility of spontaneous growth following trauma. Here, EMDR—within a phased approach—works to dismantle chronic negative narratives (such as shame and inferiority) and reconstruct a more coherent sense of self, forming a foundational platform for therapeutically acquired post-traumatic growth (Courtois & Ford, 2009; Cloitre et al., 2012).

From a narrative perspective, EMDR shifts the position of trauma within the individual’s life story. Rather than remaining the core of identity and the axis of the internal narrative, trauma becomes a painful yet integrated and meaningful event within a broader life trajectory. This narrative shift constitutes a central mechanism in post-traumatic growth, enabling individuals to redefine themselves not as perpetual victims, but as agents who have endured adversity and reconstructed meaning in their lives (Tedeschi & Calhoun, 2004).

Contemporary literature further suggests that EMDR enhances awareness of internal resources and facilitates the activation of previous experiences of strength and success during reprocessing, supporting the personal strength dimension of post-traumatic growth (Shapiro, 2018). Additionally, reprocessing memories linked to relational trauma may open pathways for improved relational representations, trust, and openness toward others, thereby contributing to the dimension of improved social relationships.

Accordingly, post-traumatic growth through EMDR can be understood as a therapeutically acquired context that emerges from the interaction between memory reprocessing, a safe therapeutic relationship, and meaning reconstruction. This form of growth is relatively conscious, individual, and structured, distinguishing it from spontaneous or collective forms of growth, as it develops within a therapeutic framework that directly targets trauma-affected psychological structures.

Thus, EMDR should not be viewed merely as a symptom-reduction technique, but as a therapeutic framework that enables individuals—particularly those who have experienced complex trauma—to transition from traumatic rupture toward psychological transformation and growth.

Thus, as shown in the table, the concept of Post-Traumatic Growth (PTG) within the context of EMDR therapy reflects a **neurofunctional transformation process** that leads to the reorganization of traumatic memory, emotional processes, and self-awareness, allowing traumatic experience to be transformed into a source of meaning and growth potential. This transformation relies on the reintegration of neural networks responsible for emotion, cognition, and memory (Shapiro, 2001; Shapiro, 2018).

When individuals are exposed to severe trauma, memories are stored in the brain in a fragmented and sensory-based manner, accompanied by intense emotions and negative self-beliefs. This process is associated with:

Table 1. Development of Post-Traumatic Growth Through EMDR Therapy

Phase	Therapeutic Process	Post-Traumatic Growth Context
History Taking Phase	Identification of core traumatic events and assessment of personal resources.	The client begins to recognize the connection between past and present experiences and perceives the possibility of change, representing the first seeds of hope.
Preparation Phase	Establishing therapeutic alliance and teaching self-regulation strategies (grounding techniques and safe place imagery).	Strengthening the sense of self-control, which constitutes a fundamental step in the development of personal strength.
Assessment Phase	Identification of the traumatic image and associated negative cognition, and formulation of an alternative positive cognition.	The beginning of meaning reconstruction, shifting from “I am helpless” to “I am strong now.”
Desensitization Phase	Bilateral stimulation (eye movements, tapping, or auditory stimuli) while activating the traumatic memory.	The brain reprocesses the stuck memory; emotional intensity decreases, and the individual begins to perceive the event from a new and more adaptive perspective.

Installation Phase	Strengthening and consolidating the positive cognition associated with the traumatic memory	Formation of a new post-trauma identity, which represents the core of psychological growth
Body Scan Phase	Assessing and resolving residual somatic tension linked to the traumatic memory	Release of trauma-related bodily distress, restoring harmony between body and mind.
Closure Phase	Re-stabilization after the session and reinforcement of a sense of safety	Strengthening self-confidence and the ability to face life without fear of traumatic memories.
Reevaluation Phase	Reviewing changes and progress in subsequent sessions.	Clear awareness of transformation, as the individual perceives themselves as stronger, more resilient, and psychologically evolved

Hyperactivation of the amygdala, which is responsible for threat detection and emotional responses.

Impaired regulation of the prefrontal cortex, limiting emotional control and rational appraisal.

Dysfunction of the hippocampus, leading to distorted temporal context of memories (van der Kolk, 2015).

This neural distribution explains the persistence of post-traumatic stress symptoms and the delayed emergence of psychological growth following trauma. In contrast, EMDR relies on **bilateral stimulation**, such as eye movements, which leads to:

A. Reduction of amygdala hyperactivation

Decreases the emotional reactivity associated with traumatic memories.

Allows the brain to shift from a constant threat mode to a state of conscious processing.

B. Enhancement of prefrontal cortex activity

Reactivation of emotional regulation and cognitive appraisal functions.

Supports modification of negative beliefs, such as shifting from “I am helpless” to “I have resources to face the trauma.”

C. Restoration of hippocampal function

Integration of traumatic memories within their temporal context.

Transformation from a present, threatening experience into an integrated and safe memory, thereby enhancing a coherent self-narrative (Shapiro, 2018).

Post-traumatic growth also benefits from **neuroplasticity**, whereby:

New neural connections associated with meaning-making and personal strength are formed.

Neural pathways linked to fear and shame are weakened.

Communication between emotional and cognitive networks is improved, supporting greater appreciation of life, enhanced personal strength, and improved social relationships (Tedeschi & Calhoun, 2004).

5. Post-Traumatic Growth as a Collective Context Among the People of Gaza

In collective contexts exposed to chronic and intractable trauma—such as wars and political conflicts—Post-Traumatic Growth (PTG) cannot be understood solely as an individual phenomenon. Rather, it should be conceptualized as a **collective psychosocial experience** shaped through social relationships, shared identity, and collective narratives of traumatic experience. Collective growth refers to the positive transformations that may emerge within human groups as a result of coping with ongoing collective trauma. It extends beyond the individual domain to encompass relationships with others, shared goals, and social and identity-based meaning. Collective growth illustrates how communities can engage in collective psychological reconstruction despite conditions of instability and violence (Brooks et al., 2024; Tedeschi & Calhoun, 1996).

In the case of the people of Gaza, prolonged exposure to conflict, siege, and military attacks constitutes a clear framework of continuous collective trauma, whose psychological and social effects extend across multiple generations and shape cultural structures of identity, memory, and social cohesion—from the Nakba of 1948 to subsequent events and ongoing aggression (Al-Badai, 2025). Within this transitional context, post-traumatic growth becomes not merely an individual experience but

an **interactive collective process** in which a community confronts a shared existential threat. This process involves redefining meaning, cultivating shared strength, and remaining open to new possibilities despite suffering.

Studies examining PTG in conflict settings have shown that chronic exposure to violence can be associated with community-level capacities for resilience and the development of shared meaning, even under conditions of war. For example, a study conducted among Palestinian humanitarian aid workers found that higher levels of trauma exposure were associated with significantly higher indicators of psychological growth, and that such growth contributed to mitigating the negative effects of trauma on subjective well-being (Veronese et al., 2017). This finding suggests that collective trauma does not eliminate the possibility of positive psychological growth, but may instead generate communal resources that transcend the individual (Veronese et al., 2017).

Collective growth among the people of Gaza is also manifested in social support systems, shared national identity, and forms of cultural and political resistance that go beyond individual psychological suffering. These dimensions constitute a meaning-making network that connects individuals and society, helping to generate shared narratives that counter psychological isolation and reframe traumatic experience as part of a shared history and a source of collective strength. This aligns with findings from psychological studies of other collective trauma contexts, which identify social support, group cohesion, and shared meaning as key factors promoting collective growth after mass violence (Brooks et al., 2024).

Research indicates that collective growth—although less extensively represented in the literature than individual growth—possesses a contextual and cultural dimension that influences a community’s capacity to transform suffering into shared symbolic resources. Groups exposed to organized violence may develop shared meaning-making strategies grounded in common values, solidarity, and collective strength, such that traumatic experience becomes integrated into a broader vision of identity and existence. These strategies are not merely individual reflections, but rather the product of social interactions that reshape meanings of life and the future in light of the collective impact of trauma (Brooks et al., 2024; Veronese et al., 2017).

Table 2. Development of the Post-Traumatic Growth Context Among the People of Gaza

Stages	Core Manifestations	Psychological and Cultural Processes
Collective Trauma	Bombardment, loss, siege, loss of safety	Pain is perceived as part of a shared identity rather than an individual incident
Resilience	Continuation of life despite danger; family and neighbor support	Social cohesion activates feelings of safety and belonging.
Meaning Reconstruction	Interpreting suffering through faith, justice, and the national cause	Loss is transformed into “testimony” or “dignity,” giving elevated meaning to suffering
Renewed Collective Identity	Strengthening national pride and Palestinian identity	The group provides individuals with a sense of agency despite material deprivation
Ongoing Collective Growth	Emergence of new values: solidarity, altruism, hope, creativity, and perseverance	Pain is transformed into symbolic energy for life and perseverance

Thus, within the collective context and through repeated exposure to trauma, **collective beliefs about the meaning of suffering** emerge, incorporating narratives of resistance, dignity, and solidarity. These narratives contribute to reorganizing shared values and reducing feelings of isolation in suffering, thereby enhancing collective growth through repeated interpretation and social interaction.

At the physiological level, responses to chronic trauma are associated with changes in emotional regulation and neural responsiveness. Recent research indicates that factors such as emotional regulation, social support, and physiological indicators—such as heart rate variability (HRV)—are linked to individuals’ capacity to overcome traumatic distress and achieve higher levels of psychological growth (Khattak et al., 2024).

Physiologically, when individuals or groups learn effective emotional regulation strategies (e.g., acceptance and positive reappraisal), chronic activation of neural stress systems decreases, enabling the brain to restore balance and respond flexibly

to subsequent trauma. This neuroregulatory process constitutes a core mechanism of post-traumatic growth in contexts of ongoing violence.

Cultural and social mechanisms are among the most influential determinants shaping the form and nature of growth at the collective level. In contexts marked by intense trauma and conflict, such as Gaza, traumatic experiences are intertwined with historical narratives, collective identity, and moral and religious values. These cultural structures function as **meaning frameworks** that interpret and regulate suffering within broader narratives of sacrifice, resilience, and resistance, thereby supporting the emergence of spiritual and collective growth even amid persistent threat.

The literature indicates that social support, group cohesion, and engagement in meaningful collective activities serve as enabling factors for post-traumatic growth. Strong social networks promote shared experience, emotional support, and positive reappraisal—psychosocial mechanisms that support both individual and collective growth (Tedeschi & Calhoun, 2004; Rimé et al., as discussed in Hoover & Metz, 2024).

In Gaza, these cultural mechanisms are manifested through:

National resistance narratives that frame suffering as part of a collective historical trajectory.

Religious beliefs and traditions that provide interpretive frameworks facilitating the transformation of suffering into existential and spiritual meaning.

Social solidarity rooted in family and communal networks that reduce individual isolation and strengthen shared traumatic narratives.

Studies from other conflict settings similarly demonstrate that cultural and social factors—such as religious engagement, optimism, and social support—are associated with higher levels of collective growth, providing evidence that shared social narratives enhance positive responses to traumatic experiences (Galinsky et al., 2023; Israeli sample after the Hamas attack, PubMed).

Accordingly, post-traumatic growth among the people of Gaza can be understood as the outcome of a **dynamic interaction** between psychological mechanisms (cognitive reconstruction), physiological processes (emotional regulation and neural rebalancing), and socio-cultural dynamics (identity-based narratives and collective cohesion). These mechanisms do not operate in isolation but intersect within a context of ongoing conflict, where collective suffering is transformed into shared meaning resources that facilitate both collective and individual growth despite persistent adversity.

6. Comparison of Post-Traumatic Growth : EMDR vs. Collective Growth Among the People of Gaza

Post-Traumatic Growth (PTG) is a multidimensional phenomenon observable at both individual and collective levels, reflecting the capacity of individuals or communities to extract positive meaning and transform suffering into psychological, social, and moral resources. In individual therapy using Eye Movement Desensitization and Reprocessing (EMDR), growth focuses on reprocessing individual traumatic memories and regulating emotions. Bilateral stimulation restores balance among neural networks involving the amygdala, hippocampus, and prefrontal cortex, enabling the integration of traumatic experience into a safe temporal context, modification of negative beliefs, enhancement of personal strength, and improvement of interpersonal relationships (Shapiro, 2018; van der Kolk, 2015). This process reflects the neurobiological foundations of emotional physiology and neuroplasticity, whereby fear- and guilt-related neural pathways weaken while meaning- and agency-related networks strengthen, resulting in therapeutically acquired individual growth.

By contrast, growth among the people of Gaza emerges collectively through continuous exposure to chronic trauma related to conflict, siege, and military violence. Growth here extends beyond individual cognitive reorganization to encompass cultural, social, and historical dimensions. Shared national identity, religious values, and social traditions function as meaning frameworks that help individuals interpret suffering, transform it into collective meaning, and reinforce social cohesion and communal resilience (Brooks et al., 2024; Veronese et al., 2017). Neurobiologically, social support and collective interaction contribute to emotional regulation and reduced amygdala hyperactivation, while cultural and religious practices enhance neural networks associated with meaning and social engagement, enabling the transformation of trauma into enduring collective psychological resources (Khattak et al., 2024; Tedeschi & Calhoun, 2004).

Table 3. Comparison Between EMDR-Based Growth and Collective Growth in Gaza

Dimension	EMDR (Individual)	Gaza (Collective)
Psychological and cognitive mechanisms	Reprocessing individual memories, belief restructuring, self-awareness enhancement	Collective narratives, national identity, religious values, social support

Neurobiological and physiological foundations	Balanced activity of the amygdala, hippocampus, and prefrontal cortex; enhanced neuroplasticity	Collective emotional regulation; reduced amygdala hyperactivation; strengthened meaning and social engagement networks
Context	Therapeutic, safe, structured, individual	
Growth outcomes	Individual growth: personal strength, improved relationships, personal meaning	Collective growth: communal resilience, social cohesion, collective and cultural meaning

This comparison demonstrates that EMDR facilitates **acquired individual growth** through neurocognitive reprocessing, whereas collective growth in Gaza relies on sustained cultural and social interaction with trauma, with partial overlap in the neurobiological and physiological mechanisms supporting psychological and moral resilience. Despite differences in context and scope, both forms converge in their capacity to transform traumatic experience into positive resources that enhance psychological strength, social cohesion, and meaning reconstruction.

This analysis underscores that post-traumatic growth is not confined to the individual or to therapy alone, but represents a dynamic process involving interacting neurobiological, physiological, psychological, cultural, and social foundations, with distinct differences in context, mechanisms, and outcomes.

2. CONCLUSION :

A review of the literature indicates that post-traumatic growth is a multidimensional phenomenon shaped by the interaction of individual and collective, neurobiological and physiological, psychological, social, and cultural factors. While EMDR facilitates therapeutically acquired individual growth through traumatic memory reprocessing, emotional regulation, and enhanced neuroplasticity, collective growth among populations affected by prolonged conflict—such as the people of Gaza—emerges through sustained interaction with trauma within a shared cultural and social context. In this context, national identity, religious values, and collective narratives support meaning reconstruction and social cohesion.

The comparison between EMDR-based growth and collective growth provides an integrative perspective highlighting the convergence of neurobiological, physiological, and cognitive mechanisms with cultural and social dynamics. In both cases, trauma is transformed from a threat into a resource for personal and collective development, enhancing psychological strength and psychosocial resilience. Accordingly, understanding post-traumatic growth requires a **multilevel approach** encompassing individual therapeutic interventions, social and cultural support systems, and underlying neurobiological and physiological mechanisms, offering a comprehensive model for explaining PTG across contexts ranging from individual therapy to collective resilience in chronic conflict environments..

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