Contextualizing Trauma in Trauma-Informed Interpreting: A Narrative Literature Review

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ABSTRACT

Interpreters are exposed to trauma and traumatic narratives in their work with survivors of major trauma across a wide variety of contexts. This exposure may, in turn, result in serious psychological stress and emotional breakdowns. Therefore, interpreters need to become well informed about the nature of trauma (i.e., its adverse effects as well as its representations). The main objective of this paper is to provide an overview of scientific literature on the nature of trauma in relation to the newly emerging field of trauma-informed interpreting. A narrative review of the literature was conducted using a range of search strategies to locate literature on trauma and the language used in the narration of trauma. Subsequently, the relevant literature was subjected to thematic analysis. The findings point to a unique and complex nature of trauma language that is characterized by a number of structural, linguistic, and paralinguistic features.

KEYWORDS

Trauma-informed interpreting, trauma, trauma narrative, PTSD, trauma-informed training

1 Introduction

We are exposed to an acceleration of traumatic events: large-scale, collectively felt events (such as wars, global migrations, economic crises, and the current global pandemic) and small-scale, personal experiences (for instance, loss, human rights violations, displacement, sexual and physical abuse). The effects of these traumatic events can leave a lasting imprint on individuals and communities. In response, public and private agencies have made efforts to develop trauma-informed care programs that are concerned with trauma survivors' healing, recovery, and access to justice. These programs generally adopt a trauma-informed approach—referred to variably as 'trauma-informed care' (SAMHSA 2014a)—which aims to optimize outcomes for survivors, as

well as service provider and staff wellness. The Substance Abuse and Mental Health Services Administration (SAMHSA 2014b: 9) outlines a set of four bases that would make a program, organization or system effectively trauma-informed: (i) *recognizing* the signs and symptoms of trauma in patients, families and staff; (ii) *realizing* the widespread impact of trauma and understanding paths for recovery; (iii) *addressing* trauma in-depth and *integrating* knowledge about trauma into policies, procedures, practices, and settings; and (iv) actively *resisting* re-traumatization. From SAMHSA's perspective, a trauma-informed approach reflects adherence to six key principles to provide effective care: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice and choice; and humility and responsiveness (ibid: 10).

Interpreters working in these programs, like all other service providers, are expected to adhere to these principles to help ensure appropriate service provision. At the same time, interpreters are expected to respect the basic code of ethics and standards of practice, including impartiality, confidentiality, respect for role boundaries and accuracy, to empower survivors and avoid re-traumatization (Bancroft et al. 2016: 30). Given this complexity, interpreters who work with trauma survivors may become emotionally challenged and deeply perplexed by many conflicting situations (e.g., Miller et al. 2005; Crezee et al. 2011; Bambarén-Call et al. 2012; Valero-Garcés 2015; Bergunde and Pollabauer 2019; Sultanic 2021). There is an increasing number of research studies that have attempted to examine and acknowledge the stressful and demanding nature of the work of interpreters serving trauma survivors. Several authors have explored the direct or indirect impact of this work on interpreters and the skills and strategies they need to cope with it (e.g., Miller et al. 2005; Bontempo and Malcom 2012; Crezee et al. 2011; Bancroft 2017; Costa et al. 2020; Rudvin and Carfagnini 2020). In the last decade, a new field of trauma-informed interpreting (TII) began to receive growing attention (Bancroft et al. 2016; Bancroft 2017; Bancroft and Allen 2018; Bergunde and Pöllabauer 2019; Miller et al. 2019; Bancroft et al. 2022; González Campanella 2022). The focus of TII is on training interpreters to understand and attend to the nature of trauma in clients, as well as identify and manage their own psycho-emotional responses to trauma (Bancroft et al. 2016; Bancroft 2017; Bancroft and Allen 2018; González Campanella 2022).

By following in these footsteps, this study aims to gain a deeper understanding of trauma to contribute to the incipient field of trauma-informed interpreting. The main objective is, therefore, to gain an overview of the scientific literature on the topic of trauma from research in Science and Humanities. The emphasis is on studies from psychological and (neuro)psychiatric research designed to understand the nature of trauma and its linguistic representations. This study is a contribution to an interdisciplinary discourse between trauma theory and interpreting. It seeks to enrich the trauma-informed interpreting field with in-depth theoretical knowledge about the nature of trauma drawn from the literature. The review that follows categorizes and describes the nature of trauma under three main sections: (i) *Defining Trauma*; (ii) *The Effects of Trauma*; and (iii) *The Characteristics of Trauma Language*. Subsequently, a discussion attempts to conceptualize these categories in the context of trauma-informed interpreting. Finally, a conclusion provides some implications for interpreter training.

2 Method

This literature review aimed to conduct an interpretive overview of a topic through a narrative review (NR) of the international literature. The narrative review method is a non-systematic scientific investigation of the literature (Ferrari 2015). Its main objective is to identify and summarize what has been previously published. In other words, NRs provide a summary of the history of research on a certain topic, as well as identify and present clear trends as a 'conceptual frame' (ibid: 230-1). Searches were conducted in both clinical and social science databases (including Google Scholar and ScienceDirect) to locate both academic and grey literature that shed light on trauma and the role of language in the narration of trauma. Unlike systematic reviews, NRs rely on a wide variety of search terms to ensure a broader coverage (Ferrari 2015). For this research, search terms included 'trauma', 'trauma effects', 'trauma narrative', 'trauma language', 'trauma re-telling', and 'trauma linguistic markers'. Owing to the possibility that the search terms employed may have excluded relevant texts, snowballing was also used as a search method. A snowball approach refers to using the reference list of a publication or the citations to the publication to identify additional references (Webster and Watson 2002). To illustrate, the reference lists of all the target publications yielded by the search were examined, and key references that were cited repeatedly in these texts were also

included in the review. Only texts published in English were included in the database search and no cut-off date was established, as the aim of this paper was to outline the trauma research landscape.

The initial search string was applied to titles, abstracts or keywords. Over 180 references were yielded. Selections were made on the basis of the publications' relevance and representation of trauma, its effects, and the role of language in narration. Some quality exclusion criteria were applied. Any literature about trauma narratives discussed in literary works (i.e., novels and poetry) were excluded assuming that there is a potential difference in the narratives that are published for the public, and those which are spontaneous and only private to service providers (a setting that is more familiar to interpreters). Any non-academic or non-scientific work was excluded, as well as works for which the abstract and the full-text version were not available. Conference proceedings or dissertations were also excluded. This process resulted in a final sample of 101 works. The results are discussed in the following sections.

3 Results

3.1 Defining Trauma

The word "trauma" comes from the ancient Greek meaning "wound", an injury to the body, and has evolved to mean a wound to the mind (Caruth 1996). The precise definition of the modern concept of trauma varies according to context and discipline. However, "there is a general consensus that if trauma is a wound, it is a very peculiar kind of wound" (Marder 2006: 2). Concerning psychological trauma, Berger (2004) discusses this notion as an overwhelming event. This direct experience is first defined "in retrospect… belated, at a distance" and therefore interpreted only in light of its symptoms (Berger 2004: 565).

Likewise, SAMHSA's Trauma and Justice Strategic Initiative (2014a: 7) emphasizes that "trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being". However, not all stressful events qualify as 'traumatic'. The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) of the American Psychiatric Association (APA

2013: 271) narrows the types of traumatic events to "actual or threatened death, serious injury, or sexual violence". Despite this limitation, the definition of trauma in this manual also includes vicarious exposure: "witnessing, in person, the traumatic event(s) as it occurred to others; learning that the traumatic event(s) occurred to a close family member or close friend… or experiencing repeated or extreme exposure to aversive details of the traumatic event(s)" (APA 2013: 271). Moreover, retraumatization is possible due to multiple exposure to traumatic events or instances that trigger a memory or flashback of them (Duckworth and Follette 2011; SAMHSA 2014b).

3.2 The Effects of Trauma

As Dutro (2017: 331) argues, "trauma comes with its bags already packed with notions of deficiency and pathology". A review of the literature yielded by the search suggests that the effects of trauma may impact the psychological, neurobiological, cognitive, and emotional functioning of a person. Table 1 summarizes the results of the literature review on the adverse effects of trauma, which are further discussed below.

Table 1. Literature search results

The Effects of Trauma	
Psycho-physiological Impact	*Neurological Impact*
Post-traumatic stress disorder (PTSD) symptoms: ▪ Intrusion of thoughts, nightmares, and flashbacks ▪ Avoidance of memories, people and places ▪ Alterations in cognition and mood ▪ Alterations in arousal and reactivity ▪ Weight loss/gain and fatigue	▪ Developmental impairment in some brain regions: e.g., the prefrontal and parietal lobes, the corpus callosum, and the hippocampus ▪ Dysfunction in neurotransmitter and neurohormonal systems: e.g., hypothalamic-pituitary-adrenal (HPA) axis ▪ Dysfunction in cognitive and emotion regulation: e.g., impaired memory, attention, executive skills, and abstract reasoning ▪ Dysfunction in speech production: e.g., decrease in activation in the Broca's area

Psycho-physiological Impact

Direct or indirect exposure to traumatic events can result in emotional, psychological, behavioral and physical responses, generally encompassed by the term posttraumatic stress disorder (PTSD), which first appeared in the third edition of the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980 (APA 1980). It is argued that "the treatment of Vietnam War casualties, particularly of veterans who experienced symptoms years after their return from the war, helped initiate the official use of the term" (Berger 2004: 564). Originally, it was considered an anxiety disorder. Yet, in the latest version of the manual (APA 2013), PTSD has been reclassified under a new diagnostic category named 'trauma and stressor-related disorders' because it "entails multiple emotions (e.g., guilt, shame, anger) outside of the fear/anxiety spectrum" (Pai et al. 2017: 2).

A diagnosis of PTSD requires exposure to a traumatic event and a development of symptoms that can vary in severity. PTSD symptoms may include exhaustion, confusion, sadness, anxiety, agitation, numbness, dissociation, avoidance, confusion, somatization, dysregulation, and unstable internal system of arousal (Rauch et al. 1996; Williams 2006; APA 2013; SAMHSA 2014b). PTSD may also manifest as depression-related symptoms like traumatic grief, extreme sadness, suicidal ideation, weight loss and fatigue (Briere et al. 2015). According to APA, all these symptoms can fall into four main categories: *intrusion* (intrusive thoughts such as repeated, involuntary memories; distressing dreams; or flashbacks of the traumatic event); *avoidance* (avoiding triggering reminders of the traumatic event, including people, places, activities, objects and situations; or avoiding remembering, thinking of or talking about the traumatic event); *alterations in cognition and mood* (inability to remember important aspects of the traumatic event, negative thoughts and feelings leading to ongoing and distorted beliefs about oneself or others; ongoing fear, horror, anger, guilt or shame; feeling detached or estranged from others; or being unable to experience positive emotions); and *alterations in arousal and reactivity* (being irritable and having angry outbursts; behaving recklessly or in a self-destructive way; being overly watchful of one's surroundings; being easily startled; or having problems concentrating or sleeping).

The severity of the traumatic event has been implicated as one of the most prominent predictors of PTSD (Yehuda et al. 1998). Traumatic events such as torture and sexual assault are associated with higher rates of PTSD than motor vehicle accidents, for example (Voges and Romney 2003). Research has also found that men and women experience different types of traumas. For instance, van der Kolk (2000: 8) found that the most common causes of PTSD in women are sexual molestation and rape, while combat and being a witness of death or severe injury are the most common causes of PTSD among men. In addition, studies have found that women are more likely than men to develop PTSD (e.g., van der Kolk 2000; Voges and Romney 2003; Olff 2017). More specifically, women have a two to three times higher risk of developing PTSD compared to men for both psychosocial and biological reasons (van der Kolk 2000; Christiansen and Hansen 2015; Olff 2017).

Only a fraction of those exposed to severe traumatic events develop PTSD (Yehuda et al. 1998; van der Kolk 2000; Voges and Romney 2003; Campodonico et al. 2021). For example, Bremner and Wittbrodt (2020: 4) explain that the "same childhood trauma may lead to two different outcomes, with one individual showing resilience and overcoming and perhaps thriving in spite of their environment while others succumb to psychopathology and dysfunction". Research has revealed that symptoms of PTSD are assumed to be associated with some protective factors including the individual's resilience, the support system in place, prior traumatic experiences, secure attachment, adaptive coping, optimism, and general self-efficacy (SAMHSA 2014b; Campodonico et al. 2021). These factors do not necessarily protect people from developing PTSD symptoms, but they might allow them to "find meaning despite multiple traumas and subsequently lead more fulfilling lives" (Campodonico et al. 2021: 1).

Neurological Impact

In addition to the psycho-physiological effects of trauma, neuroimaging and neurotransmitter studies have revealed that "brain regions have unique windows of vulnerability to the effects of traumatic stress" (Andersen et al. 2008: 292). Yet, the nature and severity of the effects are likely to depend on many factors: genetic makeup (Caspi et al. 2003), gender and age of trauma onset (De Bellis et al. 1999; Andersen et al. 2008), or exposure to multiple forms of stressors (Edwards et al. 2003; Teicher et al. 2006). More specifically, many studies revealed that

childhood trauma may impair development of the limbic region of the brain, the prefrontal and parietal lobes, the corpus callosum, and the brain stem (e.g., Perry and Pollard 1997; Vythilingam et al. 2002; Teicher et al. 2004; Bremner 2006; Andersen et al. 2008; Bremner and Wittbrodt 2020). Andersen et al.'s study (2008), for example, analyzed volumetric magnetic resonance imaging (MRI) scans from women with repeated episodes of childhood sexual abuse. They found a reduction of an area of the brain that is involved in memory and is sensitive to stress, along with impairments in the corpus callosum and the frontal cortex (ibid). Additionally, Bremner and Wittbrodt (2020) found that trauma can have lasting effects on neurotransmitter and neurohormonal systems involved in the stress response.

Brain dysfunction and several underlying symptoms of PTSD could interfere directly or indirectly with the acquisition of new information, cognitive performance (Streeck-Fischer and van der Kolk 2000) and learning abilities throughout the lifespan (Gordon 2015). Willis (2007: 1) explains this by suggesting that "when stress activates the brain's affective filters, information flow to the higher cognitive networks is limited and the learning process grinds to a halt". In addition, several studies posit an association between childhood experiences of traumatic events and impaired memory, attention, executive skills, and abstract reasoning (e.g., Pynoos et al. 1995); poorer language and learning skills (e.g., Beers and De Bellis 2002; Kaplan 2016); poorer capacity for both emotional and behavioral self-regulation, reflection, motivation, and self-confidence (e.g., Elliott 2000); and lacking a sense of security and normal levels of curiosity which can contribute to learning difficulties (e.g., Streeck-Fischer and van der Kolk 2000).

In addition to the effects of trauma on the person's cognition, the ability to regulate emotions can also be affected by traumatic experiences. Van der Kolk (2000) and Schore (2003) argue that, since traumatic pain is stored and activated in the right hemisphere of the brain—known for its dominant role in processing socio-emotional information—overwhelming stress may lead to dysfunctions in emotion regulation and generation of coping strategies that support survival.

Finally, trauma may also interfere with Broca's area, a small region located in the frontal lobe of the left hemisphere of the brain, "which is thought to be responsible for translating personal experiences into communicable language" (van der Kolk 2000: 17). To illustrate this, exposure

to traumatic memories can translate into decreased activation of Broca's area and an increased activation of the areas that are most involved in emotional arousal (e.g., the amygdala). This may explain why traumatized individuals may experience difficulty in finding words and formulating a narrative when they relive their trauma through flashbacks (Rauch et al. 1996; Van der Kolk 2000, 2002; Brewin and Holmes 2003; Peres et al. 2005).

3.3 The Characteristics of Trauma Language

The literature review suggests that the nature of trauma language (i.e., the narratives told by trauma survivors when they talk about their feelings and reactions prior, during or after the period of the trauma) is under considerable debate. In the field of psychiatry, the construct of trauma narratives—or the creation of linguistic representations—has been theorized and used as crucial to the understanding of trauma memories, as well as PTSD symptom assessment and treatment among traumatized individuals (e.g., Alvarez-Conrad et al. 2001; O'Kearney and Perrott 2006; Jaeger et al. 2014; Bedard-Gilligan et al. 2017). The common clinical assumption seems to be that trauma narratives can change over the course of a trauma-informed treatment, mainly in the form of cognitive behavioral psychotherapy (e.g., Foa et al. 1995, 1999; van der Kolk and Fisler 1995; Brewin 1996, 2001, 2014; Ehlers and Clark 2000; Beaudreau 2007; Jaeger et al. 2014; Kleim et al. 2018). Trauma-informed treatment primarily involves restoring agency to trauma survivors—who have typically lost it during the event that caused the trauma—by assisting them to organize fragmented sensory memories into narrative linguistic memories. In turn, this reduces the intrusive and involuntary memories that characterize PTSD (e.g., Alvarez-Conrad et al. 2001; Tuval-Mashiach et al. 2004). Such treatment also assists survivors in identifying their thoughts, emotions and sensations at different stages of the event (Kaminer 2006).

A review of the research in Humanities and Science on trauma narratives indicates that the narratives of individuals with PTSD symptoms are often different from the narratives of people without PTSD symptoms. Trauma language has been studied through three relatively distinct, although inter-connected, areas: (a) the *structural characteristics* of trauma narratives (e.g., Foa et al. 1995; van der Kolk and Fisler 1995; Brewin 1996, 2001; Ehlers and Clark 2000; Alvarez-Conrad et al. 2001; Brockmeier 2008; Jaeger et al. 2014; Ladegaard 2017, 2020); (b) the

linguistic markers that appear frequently in trauma narratives (e.g., Campbell and Pennebaker 1993; Tromp et al. 1995; Pennebaker and Francis 1996; Byrne et al. 2001; Hellawell and Brewin 2004; Beaudreau 2007; Jaeger et al. 2014; Marshall et al. 2017; Kleim et al. 2018), and, most interestingly, (c) the '*unspeakable*' nature of trauma (e.g., Herman 1992; Caruth 1995; Ehlers and Clark 2000; Gilmore 2001; Rogers 2006; Papini et al. 2015). Accordingly, I argue that the main characteristics of trauma narratives can be divided into three main categories: structural, linguistic, and paralinguistic, as outlined in Table 2. These characteristics are discussed in detail below.

Table 2. The characteristics of trauma

The Characteristics of Trauma
Structural Features
▪ Fragmentation: incoherence and disjointedness ▪ Length variation ▪ Repetition
Linguistic Features
▪ Use of emotion words ▪ Use of cognitive processing words ▪ Use of personal pronouns ▪ Use of speech fillers ▪ Use of present tense
Paralinguistic Features
▪ Hesitations ▪ Pauses ▪ Silence ▪ Cries

Structural features

- *Fragmentation*

While recalling the trauma, the traumatized individual may attempt to build a coherent, organized, and detailed account by recollecting some fragmented pieces from their memory. However, they may often end up with an impoverished, fragmented, and disorganized narrative. Pioneering researchers in psychiatric neuroscience found that trauma narratives are characterized by repetitions (Foa et al. 1995); incoherence, disjointedness and a lack of sequence (van der Kolk and Fisler 1995; Brewin 1996, 2001; Ehlers and Clark 2000); gaps in the flow (Brockmeier 2008; Ladegaard 2020); pauses, hesitations and even contradictions (Ladegaard 2017); an abundance of speech fillers, repetitions, incomplete sentences, disorientation of time and space, and general confusion (Alvarez-Conrad et al. 2001). To illustrate the complex fragmented structure of trauma narratives, Jaeger et al. (2014: 4-5) provide the following examples of these structural features, collectively referred to as *fragmentation*:

- *disjointedness*: "he I was go brought with over";
- *confusion*: "I don't know how I got up";
- *repetition*: "my my my head my head was spinning";
- *unfinished thoughts*: "so then…";
- *non-fluencies*: "hm", "uh", or "um";
- *speech fillers*: "You know", "I mean", "I don't know", "Like".

While these features may also appear in non-trauma accounts, what makes trauma narrative unique is its cognitive and emotional manifestation (Ladegaard 2015) in that it represents "a break not just with a particular form of representation but with the very possibility of representation altogether, a rupture not just with the way the world is depicted but a rupture within one's existence" (Brockmeier 2008: 29). Along the same lines, Greenberg (1998: 322) posits that "the experience of trauma fragments identity, forces a separation from the self".

From a neurobiological perspective, fragmentation theories argue that trauma memories hinder recollection and concentration and make it difficult or impossible for survivors to give a coherent, consistent account of their experiences (e.g., Amir et al. 1998; Harvey and

Bryant 1999; Engelhard et al. 2003; Bedard-Gilligan et al. 2017). In the brain's response to severe trauma, trauma memories fail to be integrated into the existing mental (cognitive) structures of the individual (Van der Kolk 2002; Williams 2006) and become dissociated. As a result of this dissociation, there may be no 'proper' memories of the event (Wilkinson 2005: 487). Such memories are automatically, rather than strategically, retrieved as sensory fragments (intrusive images, sounds, thoughts, nightmares, or flashbacks), and thus become less vivid and clear, and more disorganized (Foa et al. 1993; Brewin 1996, 2001, 2014; van der Kolk and Fisler 1995; Tromp et al. 1995; Gray and Lombardo 2001; Ehlers and Clark 2000; Brewin et al. 2010; van der Kolk 2014). In due course, a difficulty in converting sensory experiences to verbal or linguistic communication ensues (van der Kolk and van der Hart 1991; Kaminer 2006; van der Kolk 2014).

- *Length variation*

Some researchers speculate that, due to unconscious repression of memories (particularly affective and somatosensory information), traumatized individuals are likely to provide shorter accounts of their traumatic event (Foa et al. 1995; van der Kolk and Fisler 1995). Foa et al. (1995) found that exposure therapy led to an increase in the overall word count and the number of cognitive processing words (i.e., think, ought, know) and affective words relating to organized thoughts, whereas words related to negative emotions and death decreased. However, Beaudreau (2007) had different results, as trauma narratives for most participants were significantly longer and contained more somatosensory and negative bodily experience detail. The author explains that the variation in length and semantic detail can be attributed to repression but also to "conscious avoidance of painful or embarrassing memories, willingness to discuss a trauma, and time since the event occurred" (Beaudreau 2007: 354).

- *Repetitions*

Remembering the trauma and preserving it becomes part of the survivors' life story. Despite all the attempts to overcome the experience and related traumatic memories, "the unconscious insists, repeats, and practically breaks down the door, to be heard" (Rogers 2006: 298). Survivors of trauma often lose themselves in an "ongoing process of storying to create and maintain a coherent life story that casts the self as valuable, unique, and permanent" (Les 2009:

201). In other words, they may feel compelled to tell, to repeat, and to remember the trauma. During the course of a sharing session, trauma survivors may return to one or more of their traumatic experiences "at least twice, and sometimes several times… This suggests that the trauma is experienced as an emotionally unfinished event, which requires repeated attention" (Ladegaard 2015: 195). This repetitive storytelling can respond to a sort of personal purpose (Frankl 2006) or to achieve "efficacy and power" by reversing the "helplessness [that] constitutes the essential insult of trauma" (Herman 2001:41). Along the same lines, Gilmore (2001:132-133) adds:

> Survivors of trauma are urged to testify in sanctioned settings to their trauma in an effort not only to create the language that will manifest and contain trauma, but also the witnesses who will recognize it. Thus, the unconscious language of repetition through which trauma initially speaks (flashbacks, nightmares, emotional flooding) is replaced by a conscious language that can be repeated in structured settings. Language is asserted as that which can make trauma real even as it is theorized as that which fails in the face of trauma.

Linguistic features

In addition to *how* individuals narrate their trauma (fragmentation, disorganization, length variation, and repetition), a close look at *what* they say during their trauma narratives can reveal "a distinct window into how survivors process unfathomable events" (Papini et al. 2015) and "how their experiences are uniquely felt and interpreted" by them (Tausczik and Pennebaker 2010). Studies discussed below have indexed some content-related aspects as linguistic indicators of trauma narratives.

- *Use of emotion words*

As might be expected, trauma narratives are usually rated as significantly more intense compared with non-traumatic narratives due to the survivors' emotional response to the trauma (e.g., Tromp et al. 1995; Byrne et al. 2001; Hellawell and Brewin 2004; Jaeger et al. 2014). Hence, they often contain greater somatosensory detail (Foa et al. 1995; van der Kolk and Fisler 1995; Hellawell and Brewin 2004; Beaudreau 2007). Typical examples of sensory content included in the analysis of Hellawell and Brewin (2004: 5) are *visual words* (e.g., "I could [see] [mangled] [bodies]…"); *auditory words* (e.g., "It was a [dull] [thud] of a solitary mortar being

fired and then [bang] the explosion"); *olfactory words* (e.g., "We fed on [foul] [smelling] scraps"); *taste words* (e.g., "…[gloopy] [taste] [of] [fear] that I couldn't swallow"); and *proprioceptive words* (e.g., "I could [feel] [severe] [excruciating] [pain]…").

Trauma narratives could also include a higher frequency of negative words (e.g., "angry", "sad", "cry", "helpless") as an indicator of negative emotionality (Tromp et al. 1995; Brewin 1996; Zoellner et al. 2002; Kleim et al. 2018), and a higher frequency of death-related words (e.g., "dead", "kill", "grave") as linguistic indicators of mental defeat and death salience (Alvarez-Conrad et al. 2001; Hellawell and Brewin 2004). Hellawell and Brewin (2004: 11) found that "flashbacks were associated to a greater extent with the primary emotions of fear, helplessness, and horror, whereas secondary emotions such as guilt and anger occurred more frequently in the context of ordinary memories". Ladegaard (2015) also emphasizes that *fear* is the overriding emotion in trauma storytelling. The narrator would express their growing fears repeatedly, and ask existential questions about life, death and/or God.

- *Use of cognitive processing words*

In the psychopathological literature, there is a large body of theory suggesting that those who process a traumatic event will use cognitive processing words (e.g., "because", "cause", "know" and "ought") as a linguistic marker of elaboration and cognitive processing (e.g., Campbell and Pennebaker 1993; Pennebaker and Francis 1996; Alvarez-Conrad et al. 2001; Marshall et al. 2017; Kleim et al. 2018). Foa et al. (1999: 305) identified three specific cognitive factors which "correlated moderately to strongly with measures of PTSD severity, depression, and general anxiety and discriminated well between traumatized individuals with and without PTSD". These factors were: *negative cognitions* about the self (e.g., "I am a wimp", "I feel isolated and set apart from others", "If I think about the event, I will not be able to handle it"); *negative cognitions about the world* (e.g., "the world is a dangerous place", "other people are not what they seem"); and *self-blame* (e.g., "it happened to me because of the way I acted"). In the same vein, Cohen (2012: 349) identified two main cognitive styles: overgeneration, i.e., a tendency to perceive negative events as generalizable to all aspects of life (e.g., "it is going to undermine everything I do"), and black-or-white thinking (e.g., "it is all my fault", "the damage is done forever").

- *Use of pronouns*

A greater use of first person, singular pronouns ("I", "me", "my") was observed in many studies as an indicator of self-immersed processing or the focus on oneself (e.g., Campbell and Pennebaker 2003), a predictor of depression (Papini 2015; Kleim et al. 2018), or of trauma-related global guilt and dissociation (Jaeger et al. 2014). To examine this further, D'Andrea et al. (2012) analyzed narratives immediately following the 9/11 terrorist attack in the U.S. and detected a greater use of first-person singular pronouns as significantly correlated with increased severity of reexperiencing symptoms.

- *Use of present tense*

A related phenomenon has been reported by Pillemer et al. (1998) and Hellawell and Brewin (2004), who found that traumatized people may abruptly and unintentionally shift from the past to the present tense during their reminiscences of the traumatic experiences, making accounts appear more vivid. Pillemer et al. (1998) explained that this shift is indicative of heightened emotion and intense reliving of past experience. Such reliving of phenomena, Hellawell and Brewin (2004: 3) argue, is "an outward sign of an internal switch from a narrative-based representation to an image-based representation in memory". This switch is then reflected in "the active description of sensations" by, for example, describing a past experience using the present tense: "I [have] my hands going on the brakes now" (ibid: 6).

Para-linguistic features (Unspeakability)

No matter how long and frequently the traumatic experiences are voiced, trauma is in essence unspeakable (Herman 1992; Rogers 2006). As it arouses tumultuous emotions, trauma creates a sense of muteness or muted self (Caruth 1995) that dominates the lives of traumatized people, who sometimes fear re-opening wounds. Shuman (2005: 19-20) commented on the challenges of telling a trauma story: "the tellability of these trauma narratives is compromised by the unacceptability of the events. These are stories about things that shouldn't happen, rather than about things that didn't happen". In this regard, Van der Merwe and Gobodo-Madikizela (2007: 6) emphasize that "extreme trauma leads to a loss of words because language is insufficient to describe the experience". Likewise, Gilmore (2001: 132-133) says that "trauma is beyond

language in some crucial way, that language not only fails in the face of trauma, but is mocked by it and confronted with its own insufficiency".

There is a phase in which traumatized people may experience an absence of emotions, which may suggest affective numbing, and inability to produce complete trauma narratives (Ehlers and Clark 2000; Papini et al. 2015). Some resort to silence as a form of resistance, refusing to acknowledge the traumatic experience by speaking about it. Others experience "continuous crying, either throughout the telling of the narrative, or repeatedly during the storytelling" (Ladegaard 2015: 194). Conveying thoughts and feelings to family, friends, and doctors can be tiring. Therefore, some people opt for other non-verbal narratives, such as art. For example, Les (2009: 200) explains why she retreated to visual instead of verbal narratives while coping with her traumatic experience of having cancer:

> I found that images, like facial expressions exchanged in the waiting room, have the capacity to tell a complex story with greater ease than spoken language, which must be delivered at the right time, in the right words, for the right recipient. Spoken words are fleeting, but created images, artwork or photographs, can be crafted, contemplated, and preserved to communicate a state or story again and again.

Interdisciplinary findings have shown that words are not the only method of communication (e.g., Riessman 2008; Chong 2015). In their work concerning traumatized African refugees in Australia, Puvimanasinghe et al. (2015: 70) stressed the need "to move beyond words to listen to the silence and blank spaces of the stories untold". In the last ten years, more attention has been given to alternatives to traditional (talk) therapy such as creative arts therapies (CAT), including art therapy, dance/movement therapy, drama therapy, music therapy, psychodrama, and poetry/bibliotherapy (de Witte et al. 2021). Research has shown the effectiveness of some "non-verbal techniques such as visualization, progressive relaxation, mindfulness, and religious rituals" (Puvimanasinghe et al. 2015: 88) in reducing a wide range of psychological and physiological reactions like stress, trauma, depression, anxiety, and pain.

Having addressed the structural, linguistic and paralinguistic features of trauma narratives found in the literature, the following section presents a discussion that attempts to relate these

concepts back to interpreting. For this purpose, the salient findings and theories on the effects of trauma as well as its linguistic representations will be conceptualized in the context of trauma-informed interpreting.

4 Discussion: Contextualizing the Review Results within Trauma-informed Interpreting

4.1 The Effects of Trauma

Based on the literature reviewed under Section 3.2, direct or indirect exposure to traumatic events can result in a short-term or a lifelong deep impact on some individuals' emotional, psychological, behavioral and physical functioning (e.g., Rauch et al. 1996; Williams 2006; APA 2013; SAMHSA 2014b; Briere et al. 2015). In a typical encounter, interpreters working with trauma survivors may witness the aftermath (the signs and symptoms) of trauma. According to APA (2013: 271), "witnessing, in person, the traumatic event(s) as it occurred to others… or experiencing repeated or extreme exposure to aversive details of the traumatic event(s)" is considered a vicarious exposure which may result in vicarious trauma (VT) or re-traumatization.

Over the last decade, several scholars have focused on vicarious trauma among interpreters exposed to client trauma, with a focus on torture, mental health services and refugee resettlement (e.g., Splevins et al. 2010; Crezee et al. 2011; Bámbaren-Call et al. 2012; Lai and Costello 2021; Sultanic 2021). A large portion of participants in these studies reported that working with survivors of trauma had a negative impact on their lives. They described intense emotional reactions and symptoms of distress similar to PTSD symptoms, including alterations in cognition and mood, dissociation, poor sleep or concentration, and depression (see Table 1). Interestingly, some of these individuals not only did not report any lasting negative effects but actually, reported positive experiences and growth as the result of empathetic engagement with their clients' improvement (Splevins et al. 2010; Lai and Costello 2021). For others, "the after-effects seemed minimal, lingering only for a day" (Sultanic 2021: 235). This variation goes in line with the theory discussed in Section 3.2, as not everyone who is exposed to trauma develops negative effects (Yehuda et al. 1998; van der Kolk 2000; Voges and Romney 2003;

SAMHSA 2014b; Campodonico et al. 2021). The same exposure to trauma may result in different outcomes based on factors including the nature and qualities of the event(s), prior traumatic experiences, support systems in place, the individual's resilience, secure attachment, adaptive coping, optimism, and general self-efficacy (SAMHSA 2014b; Campodonico et al. 2021). In those cases where the individual does develop symptoms of trauma, the severity of the effects may vary depending on factors such as gender (van der Kolk 2000), genetic predisposition (Caspi et al. 2003), and frequency and exposure to stressors (Teicher et al. 2006; Bremner and Wittbrodt 2020). This means that each interpreting client will have unique emotional responses to trauma. Interpreters, accordingly, should be prepared to witness a variation in reactions to trauma among their clients.

Moreover, statistics about trauma (e.g., National Center for PTSD 2018) suggest that the interpreters may also experience abuse, violence, neglect, loss, war, torture or displacement. Interpreters who have experienced trauma, conflict, and instability may suffer effects that could negatively impact their performance (see Table 1). From a neurodevelopmental perspective, research has shown that trauma can have structural and functional effects on some regions of the brain as well as on verbal ability and fluency (van der Kolk 2000). Along with several underlying symptoms of PTSD, dysfunctions in the brain regions could, in turn, interfere directly or indirectly with cognitive performance (Streeck-Fischer and van der Kolk 2000) and the emotional stability (e.g., Van der Kolk 2000; Schore 2003) of the traumatized person. In other words, trauma could cause impairment in memory, attention, executive skills, and dysregulation in the intensity and duration of affects/internal states. In turn, this could translate into poorer capacity for both emotional and behavioral self-regulation and self-confidence (Streeck-Fischer and van der Kolk 2000; Elliott 2000; Willis 2007) or impairment in language learning (e.g., Beers and De Bellis 2002; Elliott 2000), all of which could affect interpreting performance and wellbeing.

Interpreting trauma creates particularly complex and emotionally charged situations for interpreters. Therefore, they might need to be equipped with advanced cognitive skills and working memory (Kurz 2003; Liu et al. 2004); special personality traits such as openness to experience, conscientiousness, self-confidence and self-efficacy, which might increase their

adaptability and resilience to challenging situations (e.g., Goldberg 1990; Bontempo and Napier 2011). Additionally, interpreters may need emotional intelligence (self-control, and emotion perception and regulation) to avoid re-traumatizing survivors and cope with exposure to a client's trauma that could also trigger their own memories.

4.2 The Linguistic Representations of Trauma

Based on the literature reviewed under Section 3.3, the behavioral, psychological, neurobiological, cognitive, and emotional effects of trauma have proved to play a role in shaping the *unique*, *complex* nature of trauma language. The literature (e.g., Campbell and Pennebaker 1993; Caruth 1995; Foa et al. 1995; van der Kolk and Fisler 1995; Brewin 1996, 2001; Hellawell and Brewin 2004; Rogers 2006; Jaeger et al. 2014) suggests that trauma survivors may use language characterized by unique features. Notably, structural characteristics include disorganization, fragmentation, repetition, and length variation; whereas linguistic characteristics comprise frequent use of emotion words, first-person singular pronouns, cognitive processing words, speech fillers, and tense shift. Finally, some paralinguistic features include pauses, hesitations, cries, or complete silence (as discourses of the unsayable).

The structural and linguistic aspects of trauma narratives are crucial for service providers' understanding of trauma memories, as well as PTSD symptom assessment and treatment (e.g., Alvarez-Conrad et al. 2001; O'Kearney and Perrott 2006; Jaeger et al. 2014; Bedard-Gilligan et al. 2017). For this reason, Bambarén-Call et al. (2012:34) report that providers working with trauma clients through interpreters "want interpreters to render everything", including things that interpreters might think are not important. Moreover, one provider pointed out that "not saying exactly what we as clinicians say is highly frustrating because we have a method that is vital to the therapeutic process" (ibid: 35). Therefore, the process of translating traumatic narratives is seen as a critical activity that should go beyond the inter- and intra-lingual translation to include inter-semiotic translation (Papadopoulos 2003). Translating the narrative of traumatized survivors accurately and completely without adding or deleting anything and maintaining paralinguistic elements is thus very important (Papadopoulos 2003; Bancroft and Allen 2018).

The literature review also suggests that traumatic narratives can be loaded with conflicting emotions (Hellawell and Brewin 2004; Jaeger et al. 2014), which can place a heavy burden on the person listening to them. About three quarters of the 169 interpreters surveyed by Bámbaren-Call et al. (2012) reported that they had been emotionally affected when hearing emotionally traumatic stories or disturbing information. Many of them expressed their struggle to "keep their own composure" (ibid: 27). Conveying this content has been viewed as emotionally straining, since interpreters are not just hearing the words but also imagining and processing them (Splevins et al. 2010; Gomez 2012; Berthold and Fischman 2014; Darroch and Dempsey 2016). Maintaining the first-person speech—even more prevalent for survivors referring to traumatic experiences (Papini 2015; Kleim et al. 2018)—may contribute to this strain and increase the risk of vicarious trauma in interpreters (Splevins et al. 2010; Gomez, 2012; Berthold and Fischman 2014; Darroch and Dempsey 2016). Therefore, interpreters may switch to the third person as a strategy to reduce the emotional impact of traumatic content (Miller et al. 2005).

In addition to the emotional nature of trauma narratives, interpreters may be perplexed by its paradoxicality. During the course of a sharing session, trauma survivors may return to one or more of their traumatic experiences "at least twice, and sometimes several times" (Ladegaard 2015: 195). In other occasions, survivors may struggle to find the words, as "language not only fails in the face of trauma, but is mocked by it and confronted with its own insufficiency" (Gilmore 2001: 132-133). In these cases, survivors may resort to silence or continuous crying during the storytelling (Ladegaard 2015). In addition, the literature revealed that traumatized individuals are likely to provide shorter, fragmented accounts of their traumatic event (e.g., Foa et al. 1995; van der Kolk and Fisler 1995) because traumatic memories are automatically, rather than strategically, retrieved in the form of fragments. In contrast, other individuals with PTSD may produce significantly longer narratives and include more somatosensory and negative bodily experience detail, especially during trauma treatment (Beaudreau 2007). In brief, the effects of trauma produce emotions that shape language in paradoxical ways. Interpreters should be able to anticipate these inconsistent behaviors and be prepared to approach them appropriately.

The discussion in this section highlights key aspects of interpreting in trauma contexts. This conceptualization can be used as a first step toward trauma-informed practice in interpreting for survivors of trauma. It can also contribute to the design of trauma-informed pedagogy. The following section provides conclusions and implications for interpreter training.

5 Conclusion

Based on the foregoing discussion, working in trauma contexts can be typically considered more intense and complex than work in other settings, as it poses a number of specific challenges. As a result of the emotional and complex nature of trauma and its linguistic representations, trauma language tends to have an emotional, unique and complex nature. Interpreters working in these settings are expected to be sensitive to both the linguistic and non-linguistic aspects of trauma narratives and mirror them accurately and completely in order to facilitate the professional's understanding of the narrator's experience. However, this language, whether verbal or non-verbal, can leave a strong impact on the person receiving the information (e.g., the interpreters), which translates into a high risk of developing vicarious trauma.

Given this complexity, superficial knowledge about the aspects of trauma may not suffice. There is a need for more in-depth knowledge that is informed by relevant academic literature. Such knowledge can give interpreters who work regularly with survivors of major trauma and/or who may be experiencing the adverse effects of their own personal trauma a chance to fully recognize the complexity and challenges of their work. In other words, it would help them become more aware of their reality, which is crucial to their professional and personal wellbeing. Trauma knowledge further helps interpreters understand their roles and responsibilities: to help trauma survivors by becoming the voice of both the survivor and provider, conveying all messages with accuracy and transparency without overstepping their boundaries (Bancroft et al. 2016; González Campanella 2022).

There seems to be a clear argument for the need to follow in the footsteps of recent seminal training materials that aim at preparing professional interpreters to work with survivors of trauma (Bancroft et al. 2016; Bergunde and Pöllabauer 2019; Miller et al. 2019; Bancroft 2022). In this context, this study seeks to contribute to that goal, by helping interpreters and interpreter trainers understand the nature of trauma, mainly (a) its adverse effects and (b) its linguistic

representations as key elements to consider in trauma-informed training curricula. Even though trauma storytelling is not generally a focus in interpreting, the literature review conducted in the present study suggests that studying trauma language and its implications can be significant in this field. In future endeavors, discourse analysis of trauma narratives can enrich the growing field of trauma-informed interpreting research, practice and training.

Due to the scarcity of literature from a trauma-informed viewpoint, the current study may serve to promote trauma-informed approaches in interpreting training. Some of their foundational underpinnings (e.g., Bath 2015; Jennings 2019; Norrish and Brunzell 2021) include creating an inclusive and safe learning environment that recognizes how trauma can affect learning and performance. Therefore, trauma-informed interpreter training promotes educational practices and approaches that are intended to mitigate the impact of trauma by offering psycho-social nurturing and support. Most importantly, trauma-informed approaches also promote an awareness of individual differences and the impact of complex personal histories, obstacles, and challenges (Jennings 2019; Norrish and Brunzell 2021). Self-awareness can encourage positive self-development (Sutton 2016) and allow the individual to practice self-control; work creatively and productively (Silvia and O'Brien 2004); and enhance self-confidence and occupational wellbeing (Sutton et al. 2015). Thus, there is a pressing need to provide interpreters working with trauma survivors with trauma-informed training to ensure that they are well prepared to support survivors' autonomy, facilitate other service providers' understanding of the narrator's experience, avoid re-traumatization, and protect themselves from the prolonged psycho-emotional impact of working in such high-stress situations.

Acknowledgment

This manuscript was inspired by *Theory and Practice of Interpreting and Interpreting Pedagogy* class I took with Dr. Kelly Washbourne at Kent State University as part of my PhD coursework. I am immensely grateful for his constant support and comments on earlier versions of the manuscript. I would also like to extend my gratitude to the reviewers and editors. Any faults and shortcomings are, of course, my very own.

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