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The voice as felt sense: an integrative review exploring the potential of embodied voice work in trauma-informed dramatherapy

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The Voice As Felt Sense:

An integrative review exploring the potential of embodied voice work in trauma-informed dramatherapy.

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SUPERVISOR: Dr Phillip Speiser

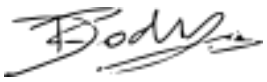
A research report submitted to the School of Arts, Faculty of Humanities, University of the Witwatersrand in partial fulfilment of requirements for the degree of Master of Arts by coursework and research report in the field of Drama Therapy.

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Abstract

This integrative research paper draws from diverse disciplines like neuroscience, trauma studies, therapeutic voicework and theatre voice studies to interrogate the relevance and applicability of embodied voice work in trauma-informed drama therapy. Through a neurophenomenological approach to these topics, the distinction between traumatic cognition and neurobiological experience is explored as primarily an *embodied experience*. This is supported by findings that voice work sits at the crossroads between cognitive and body-based therapeutic approaches and is applicable in both, as the voice has the potential to holistically express the *felt sense* of any moment. Additionally, since voicelessness and silence are so often a part of the traumatic event, giving clients an opportunity to speak vitally redresses these past wounds. Given their theatre voice training background, drama therapists are uniquely placed to work with and develop the spoken voice. And the spoken voice is a tool which, I argue, should be given more attention, particularly within trauma-informed therapeutic frameworks.

Keywords

Trauma, Embodied Voice, Sensory Voice, Felt Sense, Polyvagal Theory, Neurophenomenology, Drama Therapy, Vocal Psychotherapy, Therapeutic Voice Work

PART ONE: Micro and Macro

Chapter 1
Introduction and Background

1.1 My Voice (Micro)

I have had an interest in the voice and its reciprocal relationship with the body for some time. The voice reaches inward and outward simultaneously. It emerges from the body's physiology but can also impact it. It can create but also express emotion. It is relational. It represents something of our relationship to self, to others and to our environment. The voice is breath and vibration, as Linklater (1997:12) notes, and it is "infinitely malleable, transformable, and expressive." But it can also get stuck, as we get stuck, physically, emotionally and relationally: "disturbances of the voice and of voice production [often] occur… as an outward manifestation of emotional conflict" (Brody, 1943 in Newham, 1998: 193).

As a performer with a spinal condition, my most powerful vocal experiences have been when using the voice for myself – to soothe my nervous physiology or find aural expression for emotion. Perhaps this tendency harkens back to my earliest experiences of soothing: my mother's voice to ease me into quiet settling. Or perhaps even further back, to inside the womb. Nöcker-Ribaupierre (2001: 7) notes that though "the foetus is bathed in sound…the mother's voice dominates."

But this self-soothing experience is beyond simply *hearing* the sound of my own voice, it is the experience of my voice vibrating over my skin, through my bones and in my body. It is the *felt sense* (Gendlin, 1978, 1981) of my voice in my body that forms part of my bodily experience of calm. Just like in the womb, before our ears ever form, voice is *felt* before it is ever heard, as "vibrations on [the] skin" (Nöcker-Ribaupierre, 2001: 7) transported through amniotic fluid and conducted through our bones. Then, in infancy, voice and movement therapy pioneer Paul Newham speaks about a "sonic envelop" which can develop between baby and mother, a safe container in a new and stimulating world (Newham, 1998: 193).

Alongside my vocal journey, as my relationship with my unique body grew, I noticed the impact of increased bodily awareness and what it could offer me as an embodied agent. Both somatic awareness practises and utilising my own voice to calm myself down influence my experience of myself on a moment-by-moment basis. As Mingle (2018: 6) notes in her thesis discussing somatic voice training, "by becoming more sensitive and present… [we are able to] attend to present-moment processes." This type of somatic work expands how one construes sensory data – from both within and without the body, as well as the reciprocal relationship between the two. The voice is not only produced by, but also *felt* inside the body, whether we notice it or not.

What could constitute the relationship between our feelings and the voice as *felt sense*? Critchley and Garfinkel (2017: 12) claim that "interoceptive signals influence emotional…processes [and] make it untenable to dismiss the contribution of bodily physiology to emotions as epiphenomenal." Thus, it seems at least possible that the embodied voice may be able to tap into this internal experience of *felt sense* within the body and may be able to influence how we feel by impacting our interoception.

In my own personal explorations, I always come back to the voice. I intone to comfort myself; I write songs to make sense of the world. But what happens when we turn our attention towards the voice and towards its capacities to instantiate *felt sense*? Nettifee (2020: iv) describes the voice as a uniquely "alchemical process…bridg[ing] the conscious/Unconscious divide." Gendlin (1978: 35) describes the term felt sense, a crucial concept in the Focus-Oriented Psychotherapy he developed, as something that is "felt in the body, yet it has meanings. It is body and mind before they are split apart." The embodied voice, too, is body and mind: in concert, unsplit.

I recall a cold morning, in the town formerly known as Grahamstown (Makhanda now), with the winter sun streaming in through the windows of our downstairs drama classroom. The space alive with voices reverberating through it, as my voice vibrated in my body and out into our shared sonic world. Sensate. Colourful. As though the voices in the room and my felt sense were a prism, fragmenting the sunlight into its different colours. This experience, from more than 15 years ago now, remains with me for some reason. A deep synesthetic experience of myself and others within a particular time and space. A felt sense of an aesthetic embodied experience – a pleasure not synonymous with my new

independence and theatre training, but also not distinct from it. This experience links the ideas of embodied voice practice and complex, interior processes of meaning-making (i.e. the *felt sense*) of that moment in time. Gendlin (1981: 32) further describes *felt sense* as:

> an internal aura that encompasses everything you feel and know…and communicates it to you all at once rather than detail by detail…a single (though often puzzling and very complex) bodily feeling.

From a performance perspective, my relationship to my voice has been more cerebral and more complicated. Living with scoliosis since I was an adolescent, a disability which impacts the alignment and structure of my trunk and body, means that my voice works differently – and it has only been through discovering a felt sense of it that I have flourished.

Furthermore, the meaning of my disability and my journey towards integrating it into my self-concept, as well as my understanding of the *felt sense* of my voice, speak to my own early, *relational* conditioning. Growing up in an environment where utterance could sometimes be dangerous placed an inherent bravery at the heart of speaking, and much of my early vocal journey was dominated by either primal expression, or the self-doubt that comes from "risking" being heard (no matter the "quality" of voice). Though I have been a theatre and film performer, I have explored my voice primarily as a singer-songwriter, on my own terms, and my relationship with it has shifted over time – coming to know it, finally, as first and foremost *mine*, before it is for anyone else.

Why this innate desire to vocalise in melody? Why the need for sound vibrating through my body? I think it's been about constructing a sense of self from a fragmented past. I think it's been about communicating to my embodied presence a sense of safety in the present moment – of stamping courage on the relational aspect of being. Bruun (2015: 4) supports this notion in her article, which also advocates for a focus on the *felt sense* of the voice in drama therapy, when she writes: "the careful listening I want to encourage deals with a deep yearning for healthy self-regulation." When I share my song, my sound in words, words which emerge from the felt sense of my voice, I always feel connected to both myself and the audience – as if I am tuning into some universal chord sounding in my body, moving through me, and connecting me to others in a truly relational sense.

It is this, my interest in the psychophysical impact of the embodied voice as *felt sense*, which drives this research paper. This is because, although in drama therapy engagements the embodied voice is implicit, there is – I shall argue – not enough attention paid to the role of voice and voice work in this discipline.

This paper will survey what has been written about how voice work functions in drama therapeutic engagements, and to what extent its qualities as *felt sense* have been appreciated and/or utilised by practitioners. I will also examine where and how this type of focus on *felt sense* shows up in other therapeutic settings, such as in trauma treatment. This offers interesting considerations for the application of therapeutic voice work centred around *felt sense* in drama therapy, particularly given the highly traumatised context in which I will be working. Thus, in the next section, which expands this introduction a little further, I will be connecting my personal interest in the embodied voice with my broader context and the relevance of this work to trauma-informed dramatherapy in South Africa.

1.2 My Context (Macro)

South Africa is a traumatised country. Thirty years on from the tyranny of the Apartheid government, we are still living with the consequences of the racially segregated state it created, including systems of structural violence which continue to trap most of its citizens in cycles of poverty.

The CDC-Kaiser Permanente Adverse Childhood Experiences (ACE) Study defines ACEs as "common, stressful and traumatic exposures affecting the (neuro) development of children" (Manyema & Richter, 2019: 1). Considering the South African landscape, it's important to note that socio-economic and environmental stressors increase the likelihood of being exposed to one or more traumatic events, such as "abuse and neglect…[and] growing up in a dysfunctional household" (Manyema & Richter, 2019: 1). In this study, out of the 1,223 participants, 88% "reported at least one ACE" (Manyema & Richter, 2019: 4). Thus, it seems that entrenched cycles of poverty and structural violence increase the potential for higher ACE scores, as Manyema and Richter (2019: 8) note:

> The cumulative risk hypothesis posits that additive risk factors increase the probability of adverse outcomes…[and] can affect patterns of emotional expression and regulation, stress reactivity, recovery, and coping.

Beyond the country's concerningly high ACE statistics, South Africa also has a high crime rate – including violent crimes such as murder, which before 2010 sat at five times the global average; robberies and car-jackings, which are four times as likely to involve a weapon such as a firearm; and gender-based violence, which could have an overall prevalence of higher than 28% due to under-reporting (Kaminer & Eagle, 2010: 13-18). Thus, trauma is by no means restricted to being a class issue in South Africa. The reality is that working in the health professions in South Africa means that it is very likely that you will be working with clients who have experienced some form of traumatic event, either directly or indirectly, once-off or in a more sustained and complex way.

1.2.1 Further Historical Factors

> *The Busy Road*
>
> *I am so used to it by now*
> *That when the traffic falls silent,*
> *I think a storm is coming.* (Davis, 2009: 698)

Another important consideration, when assessing the relationship between voice and trauma in a country like South Africa, is the historical weaponisation of language and voicing. While South Africa has eleven official languages, English and Afrikaans were the dominant languages of power throughout its colonial and 20th-Century history – and, to this day, carry not only that traumatic memory, but also function as ever-present wounds along the racial fault lines in society.

Ngũgĩ wa Thiong'o (1994) writes frankly about language being used as a weapon of oppression and psychic warfare. He describes his own schooling in Kenya, where English was established as the language of education, and where speaking Gĩkũyũ and Kiswahili was not only discouraged, but actively punished. Wa Thiong'o (1994: 11) elaborates:

> One of the most humiliating experiences was to be caught speaking Gĩkũyũ in the vicinity of the school. The culprit was given, corporal punishment… or was made to carry a metal plate around the neck with inscriptions such as I AM STUPID or I AM A DONKEY. Sometimes the culprits were fined money they could hardly afford. And how did the teachers catch the culprits? A button was initially given to one pupil who was supposed to hand it over to whoever was caught speaking his mother tongue. Whoever had the button at the end of the day would sing who had given it to him and the ensuing process would bring out all the culprits of the day. Thus, children were turned into witchhunters and in

> the process were being taught the lucrative- value of being a traitor to one's immediate community.

Through these punitive acts, not only was English enforced, but local languages – home languages which held the stories children grew up with, gentle communion with family and neighbours, their heart's longings – were imbued with shameful, negative associations and the trauma of betrayal (and betraying your peers). Since this paper will argue that the act of voicing is fundamentally tied to the concept of self, and the reclamation of self from unresolved neurobiological trauma response patterns, this colonial weaponisation of language and self-expression is an important trauma-informed consideration in postcolonial contexts. Being afraid to speak results in living with a sword of Damocles above your head, an ever-present fear which may become fundamental to your way of being in the world – and your experience of self.

Decades after Apartheid ended in South Africa, language is still by no means a simple act of self-expression. In addition to the historical legacy of weaponised languages, the effects of globalisation mean that certain languages (often those of the coloniser) are still given primacy in school and work environments. Thus, the traumatic cycle continues and is constantly exacerbated. Nettifee (2020: 280) notes:

> As long as conscious or subconscious beliefs persist that voicing is not safe, and that expression is likely to lead to further harm of the self or others, or that one's voice is not worthy or welcome or "good enough" with specific others or within the culture at-large, the voicing of conscious feelings will be thwarted.

This trauma of voicing, then, will have specific, subjective contours, as well as past and present legacies in which the therapist – depending on their position within that society – may by implicated.

1.3 The Body, a Bridge

It is evident that traumatic experiences in a country like South Africa are not only commonplace, but also complex and contextual. The thrust of my interest and inquiry into embodied voice practice in relation to trauma is that, regardless of the subjective nuances of a particular client's trauma, all traumatic responses are experienced and processed within an individual body.

Thus, as a white, female drama therapist-in-training conducting research in the South African context, my central assumption in working with potentially traumatised clients is a phenomenological one. Namely, that outside the vast and violent differences in everyday experience (reinforced through historical, socioeconomic and structural divisions), there is commonality in that we experience ourselves, and each other, primarily as embodied entities (Damasio, 1999 in Rothburg, 2014: 10).

Working from this premise, I wish to investigate: what impact can the present-tense experience of our embodied voice have on a *felt sense* muddied by trauma? According to Phil Jones (2007: 113), embodiment is a core principle in drama therapy and it "involves the way the self is realised by and through the body." Yet, while the body is seen as central to change (Landy & Montgomery, 2012), there is not much literature on the role of the embodied voice in the drama therapy room. Since Wolfshon's ground-breaking vocal work focusing on his own PTSD and his client's deep-seated psychological concerns (Newham, 1992) – and Roy Hart, who, in agreement with Wolfsohn, asserted that "the voice is the muscle of the soul" (Pikes, 1999 in Overland 2005: 27) – cursory attention has been paid to this unique tool in the drama therapist's arsenal.

The embodied voice, I shall contend, is a vital aspect of dramatherapeutic work, with great potential in respect of the neurobiological impacts of trauma.

Chapter 2
Conceptually Framing the Work and Method

2.1 Framework and Theoretical Perspective

Conceptually, this research is grounded in a neurophenomenological framework. This suggests research into "the sense of self with increasing focus on its embodied, and minimal aspects… [offering an opportunity to] shed… new light on the multi-dimensionality and flexibility of embodied selfhood" (Berkovich-Ohana, Dor-Ziderman, Trautwein, Schweitzer, Nave, Fulder & Ataria, 2020: 1). For example, from this perspective, developmental trauma – which includes ruptures in early attachment – plays a role in our developing brains and nervous systems (Bremner, 2001 in Klorer, 2017: 11). The neurological pathways that traumatic experiences forge influence our experience and understanding of ourselves – in other words, our sense of self.

According to Bruce Perry, our brains develop in a "user-dependent fashion" (Perry 2001, in Klorer, 2017: 11), such that "the more any neural system is activated the more likely it is to become permanent" (Klorer, 2017: 11). What is important to note here is that the neural system extends beyond the brain, and into the nervous system contained in our whole bodies (Smathers, 2022). Thus, embodied work, through our senses (both internal and external) impacts the whole neural network – including the brain.

The phenomenological assumption which is central to this framework implies that our embodied neurological experience plays a role in our cognition, our ability to regulate and thus our behaviour in the world. Furthermore, it suggests that our experience of self is relational, which is an important consideration when working in a trauma-informed therapeutic framework.

My exploration of the literature will begin by delving deeper into the neuro-phenomenological perspective and its relevance to understanding and working with trauma. From there, I will examine trauma in relation to the self and the voice, before turning my focus on the latter and studying its relevance and utility as a tool in trauma-informed drama therapy.

2.2 Method

I used an integrative literature review method to conduct this research. This method allows me to bring together "perspectives and insights from different fields" (Snyder, 2019: 336). The fields of interest for this study include trauma studies, trauma treatments, therapeutic voicework and theatre voice training methodologies. The literature on trauma, including neuroscientific theory, is focused on the neurobiological and psychological symptoms of unresolved trauma. To gain access to this research, I used search terms such as *trauma; Polyvagal Theory; neurobiology; trauma symptomology; somatic and psychological effects of trauma; trauma and fragmentation; trauma and the self.*

The literature on trauma treatments, meanwhile, included looking at recommended trauma diagnoses and their treatments, cognitive and body-based approaches, neurophenomenological conceptions of treatment and drama therapy's status and role in these wider discussions. To find relevant papers and studies, I made use of search terms and phrases like *recommended trauma treatments; recommended PTSD treatments; somatic or body-based trauma treatment; cognitive trauma treatment; neurophenomenological approaches to trauma; drama therapy and trauma; trauma-informed approaches*; and *trauma-informed drama therapy*.

Finally, I looked at therapeutic voice work and theatre voice methods. I examined literature from music therapy, which focuses on voice and other therapeutic voice approaches, as well as what theatre voice practitioners report in relation to teaching voice to actors. Terms and phrases I used to look for relevant literature in these fields included: *therapeutic voicework; voice and the self; somatic voice work;* and *the voice and trauma*.

The integrative literature review method allowed me to draw links between these pertinent knowledge bases and "synthesis[e this] literature to guide practice" (Younas, Shahzad & Inayat, 2021). Examining the literature from these somewhat disparate disciplines revealed important links between these fields and allowed me to use both inductive logic and abductive reasoning to build an argument for the embodied voice being relevant to trauma treatment. With this foundation in place, I was able to develop the argument further, positing that this under-investigated tool within the drama therapy toolkit offers drama therapists a unique and important place in the trauma treatment discussion.

The next section of this paper demonstrates my integrative literature review method and articulates the neurophenomenological framework which has informed the research.

PART TWO: The Literature

Chapter 3

Trauma: Neurophenomenology, Neurobiology and the Self

For those interested in mental health, trauma is the zeitgeist of the moment. Not only has the word become "omnipresent in pop culture" (Parnell, 2022: n.p.), but thinkers like Dr. Gabor Maté (2022; 2008; 2003) and many others have argued for the centrality of trauma in numerous mental and physical health conditions.

However, defining trauma though is not a simple task. The DSM-V classifies traumatic etiologic events as necessary criteria for all its Trauma- and Stressor-Related Disorders (American Psychological Association, 2013: 265). Werbalowksy (2019: 7) cites Susan Johnson's (2002: 14) definition in her thesis supporting body-based trauma interventions:

> trauma occurs when a person is confronted with a threat to the physical integrity of self or another… [which] overwhelms coping resources and evokes… intense terror, helplessness, and horror.

Thus, trauma includes a wide range of grave events such as war and natural disasters; life-threatening medical conditions and procedures; experiencing or witnessing dangerous interpersonal incidents, including violence, sexual assault and torture; childhood abuse and neglect; and many others. Furthermore, Werbalowksy (2019: 7) highlights that, in addition to physical danger, trauma may also be instantiated when the integrity of a person's "mind, spirit, emotional well-being and… nervous system" is threatened. In light of this, how can considering trauma from a neurophenomenological perspective enrich our definition?

In their paper arguing for a neurophenomenological approach in trauma research, Ataria, Lehad and Horovitz (2019) suggest that for trauma research to develop, the next steps are to use subjective phenomenological accounts to inform neuroscientific investigations. Their argument is that while the study of the neurobiology of fear and anxiety circuity of the brain (in humans and other animals) has elucidated our understanding of the parts of the brain impacted by PTSD, for example, simply having that overriding map has (surprisingly) not had a significant impact on the efficacy of neuropharmacological treatment. Thus, a neurophenomenological approach to research could not only offer

perspective into a particular person's neurobiology, but – over time and through an accumulation of neurophenomenological data – offer generalised insights for the efficacy, and future, of trauma treatment (Ataria et al., 2019: 209).

While this research paper is making use of a neurophenomenological lens to examine the literature around trauma and treatment, it is not conducting specific phenomenological inquiries with sufferers of trauma or PSTD. Instead, the focus here links to current somatic approaches to working with trauma survivors and is attempting to locate the role of voice work in this treatment from a drama therapeutic perspective. In their model, Ataria et al. (2019: 209) suggest that the phenomenological inquiry with their traumatised clients begins with the breath and "developing a language" to unpack and explore the clients' somatic experience in the here and now.

According to Ataria et al. (2019: 209), this focus on the immediacy of bodily experiences in the moment, rather than "naïve introspection" which attempts to make sense of past experiences, offers a safety from retraumatisation and creates a stronger balance between what the authors refer to as "sense of bodily ownership" (SBO) and "sense of agency" (SA) – a relationship which they argue is impacted by trauma. They describe both *flashbacks* and *dissociation/avoidance*, common trauma symptomology, in terms of the SBO-SA relationship being off kilter (Ataria *et al.*, 2019: 206-207). This research is embedded in the move towards "working somatically in the treatment of traumatic stress" (Langmuir, Kirsh & Classen, 2012: 214 in Ataria *et al.*, 2019: 201).

To support this focus on the body, they quote Van der Kolk and Fisler (1995: 12 in Ataria *et al.*, 2019: 201), who argue that trauma is a bodily experience "stored as sensory fragments without a coherent semantic component." This perceptual fragmentation, which exists outside of language, suggests one possible reason why talk therapy – a top-down, cognitive approach, described by Ataria *et al.*, (2019: 200) as "naïve introspection" – may fail in relation to trauma. Bessel Van der Kolk (2014: 365) notes that voicing trauma challenges us with the constraints of language to accurately report on "our inner feelings, our interiority." He, along with other trauma theorists, insist that all trauma (including childhood trauma) is held in the body and that "befriending the body" is key to recovery (Van der Kolk, 2014: 165). This is similar to the conclusion reached by Ataria *et al.*, (2019: 203), who claim that *phenomenological reduction*, as opposed to the introspection

referred to above, can assist in "an attempt to understand the experience from within, from a subjective perspective."

The importance of the subjective experience of trauma is also emphasised by numerous trauma theorists. Peter Levine (2008: 6) explains this by noting that "we become traumatised when our ability to respond to a *perceived* threat is in some way overwhelmed." Levine (2008: 8) suggests that:

> No two people are exactly alike… There are many factors involved in the wide range of response to threat. These responses depend upon genetic make-up, an individual's history of trauma, even his or her family dynamics.

Levine's emphasis on *perception*, as well as individual differences, points again to the value of phenomenological inquiry when it comes to researching and working with trauma. As Ataria *et al.* (2019: 207) highlight, neurobiology has taught us a lot about the brain regions involved in trauma responses, but it is unable to account for individual differences (i.e. the realm of phenomenology) – and this is true both in symptomology and response to treatment. Thus, within trauma treatment, "in order to understand the subject, we must examine the subjective experience from within" (Ataria *et al.*, 2019: 209).

This focus on the *perception* of stress or threat (in the moment when a stressful event shifts into the traumatic) also offers a response to recent criticisms that, by focusing on trauma's impact on human function, we broaden the definition of trauma to such an extent that it becomes meaningless. Richard McNally (n.d. in Kelly, 2018: 9) notes, "if nearly everything can count as trauma, the term morphs into a trope for misfortune." While this debate is not the focus of this paper, it is interesting to note that a phenomenological viewpoint sidesteps this concern by locating the experience of trauma *within* subjective bodily experience. Ataria *et al.* (2019: 206) suggest that a phenomenological approach, via the exploration of the ratio between SBO and SA, can assist us in unpacking the threat event and its relation to trauma symptomology if present.

However, Ataria *et al.*, (2019: 202), submit that we experience *perception* through a sensorimotor lens and suggest that our ability to:

> master our movements and predict the world's "reactions" is based upon a set of sensorimotor laws. [And that] if we cannot achieve this, our ability to perceive is negatively affected: we do not know what to

> do or how to do it...our ability to master a situation is reduced and our *practical knowledge* damaged…This consequently impairs our ability to perceive and engage with the world… the body is no longer a *knowing body*.

The implications of this are two-fold. Firstly, this means that trauma disrupts survivors' connection with their bodies and their embodied impact on, and in relation to, the world. Secondly, this implies that perception has a reciprocal relationship with trauma, where events are experienced as traumatic *in our perception*, but then also impact and effect our *ability to perceive*.

Thus, at least in theory, it could also be said that in relation to the subjective bodily experience of danger or threat, there is also a *cumulative risk* in the perception of trauma (Manyema and Richter, 2019: 8). Van der Kolk (2014: 93), for example, notes that "after trauma, the world is experienced with a different nervous system." This has consequences for someone's sense of self, as Van der Kolk (2014: 159) notes:

> Their bodies are constantly bombarded by visceral warning signs, and, in an attempt to control these processes, they often become expert at ignoring their gut feelings…they learn to hide from their selves.

Therefore, it is cogent to understand the human nervous system's responses to *perceived threat* from a neurobiological perspective. It is the interplay between these threat-responses – the person's *perception* of threat, on the one hand, and their specific behaviours in *response* to these perceptions (their phenomenological, subjective experience of, and response to, the trauma event), on the other – which forms the foundation for trauma-informed therapeutic work. As Dr. Scott Giacomucci (see *Trauma Informed Principles and Practises*, 2021: n.p.) explains, trauma-informed practises take into consideration "the ways that trauma impacts people and specifically focusses on the importance of safety and preventing retraumatisation."

While notions of safety, as well as retraumatisation, are layered and may have subjective elements which can only be addressed on an individual basis (since trauma is experienced in an embodied fashion), we can look to neurobiology to help us understand the human nervous system more broadly. From a trauma-informed perspective, it is particularly important to understand some of the physiological processes of threat and safety, as this

can help us approach the therapeutic process with tools from the onset, even if trauma is not the sole focus of the work.

Neuroscientific research has been able to identify "brain regions that are involved in anxiety, fear and trauma" (Ataria *et al.*, 2019: 207). Stephen Porges' (2018, 2016, 1994) work, in particular his concept of Polyvagal Theory, has formed the foundation for understanding the neurophysiological mechanisms involved in these neurological circuits. Werbalowksy (2019: 3-4) encapsulates the basis of his theory and its relevance to trauma:

> By studying the function and interconnections of the tenth cranial nerve, called the vagus nerve, Porges posits that there are three, not two branches of the autonomic nervous system. In addition to the commonly studied sympathetic system (fight or flight), the parasympathetic system (freeze or faint) is actually comprised of two subsystems, the dorsal vagal system and the ventral vagal system. Porges (2018) found that the vagus nerve has a branching system that is bidirectional, creates a person's "social engagement system" (p54), and connects the brain stem not only to below-the-diaphragm organs but also to facial muscles, the inner ear, the larynx, the gut, the heart, and the lungs. These areas have long been known to be affected in the presence of imminent danger (e.g., a racing heart or shortened breath), but Porges's theory helps explain more intricately how these mechanisms operate and how they remain stuck in a person who has experienced danger as trauma.

According to Porges' theory, the ventral vagal system has the capacity to physiologically down-regulate both the autonomic nervous system and the dorsal vagal system. The main theoretical import here is that our social engagement systems allow us to respond to threat by *connecting* to our fellow human beings, rather than *disconnecting* by running away, fighting, or freezing. From a phenomenological perspective, these theoretical insights may manifest neurobiologically and behaviourally in different ways from person to person. Thus, from a neurophenomenological perspective, these insights offer a promising starting point to begin working with potentially traumatised clients.

Levine and Phillips' (2015) description of Porges' model of our nervous systems – as comprising three evolutionary systems which interact to try and keep us safe should we encounter danger – offers clear practical implications. The newest ventral vagal system (our social engagement system) looks for signals of safety and danger in micro-facial expressions and interpersonal attunement. Central to the functioning of this system is the concept of proximity, since the development of "social bonds" requires people to be near

each other (Porges, 2011: 393), as well as the discovery of mirror neurons, which play a role in our ability to detect danger and respond appropriately to it (Siegel, 2010). These elements will be discussed in greater detail in Part 3 of this research paper.

The other two systems are older and, instead of increasing the level of connection to each other, inhibit our social functioning. The adrenal system (*sympathetic*) responds to threats by channelling bodily energy towards fight or flight, while the oldest, dorsal vagal system controls our freeze response and shuts down or inhibits social and motor function. This dissociative response can become entrenched when fighting or fleeing are *perceived* as being either futile, or more dangerous alternatives. As Levine *et al*. (2015: 7) note:

> The dorsal vagal system suppresses the sympathetic system, especially the social engagement system, just as the sympathetic system inhibits the social engagement system, and the social engagement system has the capacity to down-regulate the sympathetic system.

A practical example of this is found in the work of Peter Levine (2010, 2008), whose Somatic Experiencing technique is designed to impact the embodied symptomology of trauma survivors. According to Levine (in Yalom & Yalom, 2010), emotional work with traumatised clients can only begin once physiological safety and regulation have been established. Furthermore, Levine (in Yalom & Yalom, 2010, n.p.) suggests that early trauma therapies, which focused on the reliving of traumatic memories, could effectively be addictive:

> When people relive the trauma, they recreate a similar neurochemical system that occurred at the time of the trauma, the release of adrenaline and endorphins…it's like getting a speed high. And they get addicted not only to the adrenaline but to the endorphins; it's like having a drug cocktail of amphetamines and morphine.

Thus, while these therapies made people feel better in the moment by "supposedly getting out all of their locked-in emotions…they were actually terrorizing themselves with rage [before going] …back into shutdown" (Levine cited in Yalom & Yalom, 2010 n.p.), and thus the cycle would continue in the weeks to come.

Interestingly, however, the idea of releasing "locked-in energy" is foundational to Levine's approach to trauma. Somatic Experiencing examines animals' bodily responses after experiencing a threat to draw conclusions about human responses – since wild

animals experience threat regularly, but "are rarely traumatised" (Levine, 2008: 26). Levine reviewed the physiological processes which numerous animals undergo to return to equilibrium after life-threatening encounters. According to Levine, these begin with trembling, which increases in force into "near-convulsing shaking" before giving way to full, natural breaths (Levine, 2008: 27). Based on this idea, Levine suggests that the energy activated in our own threat responses needs to be released for our physiology to return to homeostasis. He argues that if a "message to normalise is not given, the brain just continues to release high levels of adrenaline and cortisol, and the body holds onto its high-energy, ramped-up state" (Levine, 2008: 35). This state results in various symptomology including hypervigilance, dissociation, hyperarousal, denial and immobility (Levine, 2008: 21-23).

There is far more to Levine's Somatic Experiencing approach to trauma, but there are two important elements to extract, at this point, from a neurophenomenological perspective. Firstly, this idea of the necessity of physiological discharge of visceral energy. Secondly, that a bodily, bottom-up approach should form the foundation of work with trauma survivors. These concepts will be revisited later, in Part 3 of this paper, when discussing embodied therapies and the role of the voice in trauma-informed work.

A final important point, to round out the neurophenomenological approach of this research paper and its emphasis on the *perception* of trauma, is that not all traumas lead to PTSD. It is only when a trauma causes an individual to "hold on" and "get stuck" that it can result in prolonged trauma symptomology and possibly PTSD (Levine, 2008: 35). Levine (2010: 32) notes that the "often bizarre symptoms of PTSD develop" not from the "triggering event itself" but rather the excess energy "trapped in the nervous system where it can wreak havoc on our bodies and spirits." Levine (2010: 43) finally suggests that trauma symptomology, which, when severe, is described as PTSD and can be diagnosed according to DSM-V categories, is not "a Disease but [rather] a Dis-Ease."

This notion of "dis-ease" links well with the idea of neurophenomenology because it implies an experience which is subject-specific and which can be remedied (to some extent) by finding more comfort, more ease. On the other hand, the disease model suggests a pathology that must be treated, instead of the individual subject. Bessel Van der Kolk (2014), a leading trauma expert and psychiatrist, seems to concur with this viewpoint

when lamenting the focus on pharmaceutical intervention upon which the brain disease model often relies. Van der Kolk (2014: 69) notes:

> Psychiatric medications have a serious downside, as they may deflect attention from dealing with the underlying issues… tak[ing] control over people's fate out of their own hands and put[ting] doctors and insurance companies in charge.

Considering that some of the symptoms of traumatic response in people include alienation and disconnection (Van der Kolk, 2003 in Werbalowksy, 2019: 9), which denotes a "loss of connection – to ourselves, to our bodies, to our families, to others, and to the world around us" (Levine, 2008: 8), the disease model may reinforce this disconnection and lack of experiential ownership. Furthermore, body-based trauma treatment advocates Levine (2010) and Van der Kolk (2014) agree that trauma can, in fact, cut survivors off from their sensing capacity – and that pharmacological intervention can exacerbate this tendency (Werbalowksy 2019: 10). Levine (2010) advocates for somatic treatment of trauma and PTSD, helping clients facilitate what, according to him, are necessary physiological processes. As he notes, "I do not view post-traumatic stress disorder (PTSD) as pathology to be managed, suppressed, or adjusted to, but the result of a natural process gone awry" (Levine, 2010: 20).

In this chapter, I have unpacked the neurophenomenological perspective on trauma, looked at a broad overview of the neurobiological processes of threat and safety, and briefly examined some definitions of trauma and PTSD. In the next chapter, I will look more closely at the notion of trauma-informed therapy and give an overview of some important trauma considerations, which may be useful when creating a trauma-informed drama therapeutic intervention. I will consider the limitations of language-based therapies and outline the reasons why body-based, bottom-up therapeutic approaches are essential to treating trauma. Finally, I will examine the impact of trauma on the phenomenological experience of self and the role of the voice in embodied, trauma-informed practice.

Chapter 4
Trauma Treatments: Mind, Body, Drama!

Despite numerous trauma theorists' insistence on the importance of body-based methods of trauma treatment, the American Psychological Association's 2017 Guide includes primarily cognitive approaches in their list of strongly recommended treatment options for the treatment of PTSD. These are Prolonged Exposure (PE) therapy, Cognitive Processing Therapy (CPT) and various forms of trauma-focused Cognitive Behavioural Therapy (CBT) (Watkins, Sprang & Rothbaum, 2018: 2-3). Furthermore, Watkins et al. (2018) note that, when comparing the PTSD recommendations from this APA guide with the 2017 Veterans Health Administration and Department of Defence (VA/DoD) guide, there is significant correlation between these strongly recommended methods for PTSD treatments (not to mention overlap in terms of pharmacological recommendations, too). Common to all these cognitive approaches is that the treatment centres around challenging dysfunctional belief and cognitive structures, which may have been formed by traumatic event/s. Another common element is exposure, which can occur either *in vivo* – where clients are assisted to approach "situations, places and people they have been avoiding because of a fear response" – or through *imaginal exposure*, which focuses on "approaching memories, thoughts and emotions surrounding the traumatic event" (Watkins *et al*., 2018: 3).

Body-based therapy advocates such as Van der Kolk (Interland, 2014), however, strongly disagree with these cognitive-based, exposure treatment tactics, claiming that desensitisation to traumatic stimuli does not equate to healing. Even more emphatically, he asserts that, "trauma has nothing whatsoever to do with cognition… [but] with your body being reset to interpret the world as a dangerous place" (Interland, 2014: n.p.). Van der Kolk (2014), a psychiatrist, has been involved in trauma research for decades and, along with Levine (2010, 2008), Porges (2018, 2011), Seigel (2010, 2007) and others, is a passionate proponent of centring the body in trauma treatment.

Of course, trauma studies and treatment don't only relate to PTSD diagnoses. The DSM-V lists several Trauma- and Stressor- related disorders, including "reactive attachment disorder, disinhibited social engagement disorder…acute stress disorder, and adjustment disorders" (Clark, Classen, Fourt & Shetty, 2015: 11-12). Importantly, all these diagnoses

require an etiological traumatic stressor as one of their diagnostic criteria (Clark, *et al.*, 2015: 11-12), and – if theorists like Gabor Maté (2022, 2008, 2003) are to be believed – then trauma may lay at the heart of many more human psychological and physical ailments than previously supposed. Thus, as a mental health practitioner, an understanding of the processes of trauma and how to approach its emergence in the therapy room is vital, as it is possible that trauma is at the heart of numerous presenting problems.

As a budding drama therapist (and a dramatist for a large part of my life), as well as someone whose interest in somatic work has grown over the years, body-based approaches to healing make intuitive sense to me. However, with this bias in mind, I'm also aware of how disconnected many people are from their everyday bodily experiences – and thus, how daunting it can be to begin accessing the body and its sensate language after decades of ignoring or avoiding it. I can only imagine that when trauma is part of the reason for the evasion, it makes it even scarier to dip a toe into the dark and murky depths of bodily sensation. When the body has felt like an unsafe place to be for so long, how does one start to inhabit it again?

This, to me, seems to be the paradox at the heart of all trauma treatment: regardless of its orientation, to recover from the debilitating symptoms of trauma, one needs to be able to address the trauma in some fashion. However, because of the time-slipping, embodied nature of traumatic experience, often focusing on the trauma – or even the site of the trauma (the body) – can lead to an experience of reliving the trauma in the present moment, thereby creating a high risk of retraumatisation. Working in a trauma-informed manner means approaching each client, whether trauma is the focus of your work with them or not, with sensitivity to the biopsychosocial processes which trauma may instigate both inside and outside the therapy room.

As Dr. Scott Giacomucci (see *Trauma Informed Principles and Practises*, 2021) laments, even *trauma-centred therapy* – which he describes as different from *trauma-informed therapy* (since the focus is on dealing with a client's traumatic material) – is not as nuanced as it should be and can sometimes retraumatise clients. He outlines six key principles for trauma-informed work, as laid down in a Substance Abuse and Mental Health Services Administration (SAMHSA, 2014: 9) paper. While these principles are all

useful, the over-arching concept which unites them is the idea of attempting to implement and cultivate *safety* for the client.

While this is a multi-layered endeavour, which includes diversity-awareness, transparency, collaboration and giving voice and agency to clients within the therapeutic process, from a neurophenomenological lens, *safety* is experienced as a bodily state. Thus, even though there are psychological mechanisms which may trigger a feeling of safety in an individual, the safety itself is experienced *in the body*. Which begs the question: if the body is the site of trauma, the place where sensation is dangerous, how can body-oriented therapies establish a *felt sense* of safety in the body?

The neurophenomenological perspective suggests that this *felt sense* of safety may occur below our level of awareness. Stephen Porges (2018: 58) calls this physiological "reflexive mechanism" *neuroception*, which is a "neural evaluation of risk [which] does not require conscious awareness." This term describes "a neural process, distinct from perception, capable of distinguishing environmental and visceral features that are safe, dangerous, or life-threatening" (Porges, 2018: 58). Furthermore, *neuroception* can instantaneously shift someone's physiological state in response to this risk evaluation, which implies a certain level of reflexive prediction occurring below a human being's conscious awareness. Porges (2018: 58) suggests that:

> Areas of or near the temporal cortex, which are sensitive to the intentionality of biological movements including voices, faces, gestures, and hand movements, might be involved in the process of neuroception.

Porges builds on these ideas to propose that it is this capacity of our nervous system – to predict risk/safety based on interpersonal, environmental cues – which translates into a *felt sense* of danger or safety. Even when we are "unaware of the stimuli that trigger different neuroceptive responses, we are generally aware of our body's reactions" (Porges, 2018: 58), he claims.

This bodily *felt sense*, therefore, encompasses our interoceptive capacity to "register sensory impressions that come from the body's interior" (Gerge, 2020: 5), including the viscera and other afferent sensations, as well as our experience of the outside world. Levine (2008: 54) describes *felt sense* similarly: "it is the experience of being a living body that understands the nuances of its environment by way of its responses to that

environment." In Eugene Gendlin's view (in Levine, 2008: 53), the *felt sense* is a kind of totalising physical experience: "a bodily awareness of a situation or person or event. An internal aura that encompasses everything you feel and know about the given subject at a given time." This implies that *felt sense* encompasses a few interrelated processes: *perception*, of our given situation; *neuroception*, which continuously and subconsciously evaluates the environment to predict our relative danger or safety; *interoception*, which allow us to read our internal world of sensation; and trauma, which can muddy these processes.

As mentioned before, establishing and attempting to maintain a *felt sense* of relative safety (in relation to the danger inherent to trauma symptomology) is a key concern for trauma-informed therapeutic interventions. In body-based trauma work, the safety and treatment are sought through a focus on bodily experience. However, the states of hyper- or hypo-arousal which result from traumatic experiences can skew the social engagement system. This can cause issues for clients in "connecting to… others, misreading social cues or showing flat affect" (Krug, 2018 in Werbalowksy, 2019: 17).

These concerns, along with overwhelming or disconnected body-cues, are a large part of the reason why establishing a connection to the *felt sense* of safety is so important when working with traumatised people. With this in mind, I will now adumbrate a couple of seminal body-based approaches (as opposed to the cognitive methods mentioned earlier) which focus on working with traumatised clients: Peter Levine's (2010, 2008) Somatic Experiencing and Ogden's (2006) Sensorimotor Psychotherapy.

Peter Levine's (2010, 2008) Somatic Experiencing (SE), as described in the previous chapter of this paper, is based on the idea that trauma symptomology is the result of trapped physical energy, due to incomplete fight/flight/freeze responses which stay active in the body even long after the event, if they are not properly discharged (Levine, 2008: 65). SE has evolved alongside Porges' Polyvagal Theory (2018, 2011) and makes use of nine key components built upon the first three: [1] establishing "an environment of *relative* safety… [2] support[ting] initial exploration and acceptance of sensation [and] [3] establish[ing] pendulation and containment: the innate power of rhythm" (Levine, 2010: 74). In addition, SE uses titration to build "stability resilience and organization" slowly (Levine, 2010: 75). Later, I'll return in more detail to the concepts of *pendulation* and

titration which work together in SE as "a tightly-knit dyad that allows individuals to safely access and integrate critical survival-based, highly energetic states… [and] allow trauma to be processes without overwhelm" (Levine, 2010: 82).

Pat Ogden's Sensorimotor Psychotherapy is likewise built on the premise that trauma processes get stuck in the body, and thus need to be processed through it, in order to heal. Ogden (see *Dr Pat Ogden on the Sensorimotor Approach to Resolve Trauma*, 2017: n.p.), the founder of Sensorimotor Psychotherapy, cites Pierre Janet when discussing traumatised clients, who notes that "traumatised patients haven't been able to complete the acts of triumph that started when the trauma occurred," and that these incomplete actions remain alive in the body as "sub-cortical impulses". She goes on to explain that it is through body awareness and working with the body that we can discover these impulses and work with them to ultimately heal from trauma. Sensorimotor Psychotherapy utilises psychomotor skills including sensory awareness, breath and movement to integrate "physical, emotional, and cognitive aspects of experience" (Buckley, Punkanen, & Ogden, 2018: 225).

Though each body-based intervention has its own ways of achieving the goal of developing a client's internal resources in the face of a trauma-impacted nervous system, they all intend to foster a client's embodied sense of "vitality, present moment awareness, trust (including self-trust), agency, presence, connection… relational capacity, distress tolerance, curiosity, playfulness, and capacity for life affirming emotions" (Werbalowksy, 2019: 21). Drama therapy is an embodied practice which has the capacity to achieve a range of these aims, but also makes use of story (and autobiography) as important elements of practice. From this perspective, drama therapy has a unique contribution to offer the field of trauma treatment, since it seems to exist at the nexus of cognitive strategies (e.g., storytelling) and body-based strategies.

Johnson and Sajnani (2014: 16-17) note that, in drama therapy, the (cognitive) desensitisation strategy of *imaginal exposure*, for instance, is inherent in the role play and re-enactment aspects characteristic of many drama therapeutic approaches. However, these body-based enactments include a far richer and more vivid sensory experience than simple, talk-based *imaginal exposure,* because the process foregrounds phenomenological, embodied experience. This feature, the level of detail of the sensory experience, is directly

linked to the success of exposure treatment strategies – and Johnson and Sajnani (2014: 17) further note that drama therapeutic techniques "offer incredible flexibility and range in the degree of cognitive distance from the traumatic material… [and include] a great deal of humour and pleasure," which arises from connecting with *spontaneous play*. This type of play at once forms an important element of the drama therapeutic methodology, while also being an important therapeutic goal when working with traumatised clients.

Trauma researcher Bessel Van der Kolk (2014) hints at the power of drama therapy in his seminal book, *The Body Keeps the Score*, in which he advocates for the transformational power of theatre and role-based work in trauma treatment. Van der Kolk's (2014: 513) commentary emphasises the value of drama therapy's ability to give a client a viscerally different experience of themselves, and, at the same time, re-author their story and restructure their thoughts:

> Traumatised [clients]… are embarrassed to be seen, afraid to be in touch with what they are feeling, and they keep one another at arm's length… theatre offers a unique way to access a full range of emotions and physical sensations that not only put them in touch with the habitual "set" of their bodies, but also let them explore alternative ways of engaging with life.

Van der Kolk (2014: 362) is concerned about the "limitations of language" in talk therapy, and he claims that focusing on the body can serve as a bridge to find relevant and descriptive language for trauma victims to begin to express and explore their difficult past experiences. Furthermore, Van der Kolk (2014: 511) advocates for the power and primacy of voice and language in dramatic engagements:

> Trauma is about trying to forget, hiding how scared, enraged, or helpless you are. Theatre is about finding ways of telling the truth…this requires pushing through blockages to discover your own truth, exploring and examining your own internal experience so that it can emerge in your voice and body.

These two aspects of drama therapy, the cognitive and the embodied, are inextricably linked to the use of our voices, our primary tools of our communication. As Nettifee (2020: iv) so poetically puts it, the voice is an "alchemical process…bridg[ing] the conscious/ Unconscious divide." Thus, while working with the body is often discussed as a core principle in drama therapy, the voice – a theatrical discipline in its own right – also plays a large (and in my opinion underappreciated) role in drama therapeutic interventions.

Drama therapy may potentially use movement-based interventions; however, it is distinct from dance movement therapy (DMT) and its contribution to trauma treatment, precisely because voice also plays a large part in our embodied processes of role play, enactment and re-storying. Further to this, drama therapists with a history of theatre work are uniquely placed to be able to work with individuals both technically and emotively to make the most of this important expressive tool. This is of particular importance in trauma treatment because part of the phenomenological experience of trauma often includes loss of voice, being silenced or unheard.

My argument, therefore, is that the voice is an embodied practice which deserves more attention in the field of drama therapy. This is because – if the voice and language sit at the junction between cognitive and body-based treatment strategies – then examining the therapeutic potential of the voice may offer a unique perspective on drama therapy and its relevance to trauma treatment. Thus, in the next chapter, I will look at the embodied voice, including its relation to the self and the fragmenting impact that trauma can have on language and memory.

Chapter 5

A Fragmented Self: Memory, Language and the Voice

No Explosions

To enjoy
fireworks
you would have
to have lived
a different kind
of life
(Nye, 2019: n.p.)

Trauma can dramatically fracture a person's sense of self. Even once-off events can have such a devastating, enduring impact that people are left no longer feeling like themselves (Levine 2010: 136-137), while chronic and childhood trauma can lead to people developing "a hugely deficient sense of coherent personal identity and competence" (Van der Kolk, 2014: 256). Judith Herman (2015), in her treatise *Trauma and Recovery*, details many aspects of the history of researching, classifying and treating trauma. Herman (2015: 47) describes the fragmentation process as follows:

> Traumatic reactions occur when action is of no avail. When neither resistance nor escape is possible, the human system of self-defence becomes overwhelmed and disorganised… Traumatic events produce profound and lasting changes in physiological arousal, emotion, cognition, and memory. Moreover, traumatic events may sever these normally integrated functions from one another. The traumatised person may experience intense emotion but without clear memory of the event, or may remember everything in detail but without emotion. She may find herself in a constant state of vigilance and irritability without knowing why. Traumatic symptoms have a tendency to become disconnected from their source and to take on a life of their own.

As modern neuroscientific research in this field continues to develop, these notions of 'fragmentation' and 'severing of functions' seem to be increasingly validated. For example, within the complex trauma arena, the concept of Disturbances in Self-Organization (DSO) refers to problems with emotional and relationship regulation, combined with a negative self-image (Teicher & Samson, 2016 in Gerge, 2020: 1). Additionally, DSO suggests that "with an increasing degree of traumatisation, the difficulties in regulating… further increase and the personality can begin to divide due to dissociation" (Gerge, 2020: 1).

From a neurobiological perspective, this characteristic of experiencing a fragmented self can be described as a brain "trapped in rigid response patterns"; while, experientially, Gerge (2020: 2) likens it to "living with a disrupted narrative about oneself." Furthermore, according to the theory of structural dissociation, some traumatic information is "perceived as strange and nasty to the apparently normal part of the personality… [and thus] parts of the personality can carry tension or emotional information that other parts avoid contact with" (Gerge, 2020: 2).

Herman (2015) describes how this fragmentation occurs through the now-familiar traumatic response categories of hyperarousal, intrusion and constriction. These post-traumatic experiences are linked to the physiological aspects of traumatic memory. For example, hyperarousal suggests that the traumatised person's *neuroceptive* ability is indelibly impacted by the inherent danger of the traumatic event. Their ability to detect danger in the outside world is skewed by previous experiences of danger, as Herman (2015: 50) notes: "they do not have a normal 'baseline' level of alert but relaxed attention. Instead, they have an elevated baseline of arousal: their bodies are always on the alert for danger."

Traumatic intrusions, on the other hand, occur as dreams and traumatic memories, which also interrupt people's normal daily functioning. From a neurobiological perspective, according to Dr. Dan Siegel (2010: 193-206), traumatic memories stem from a reduced ability to encode *explicit memory*, while, at the same time, encoding *implicit memories* in even more heightened and vivid detail. Implicit memories "encode our perceptions, our emotions, our bodily sensations," and our sensorimotor skills "such as learning to crawl or walk or talk or ride a bike" (Siegel, 2010: 195-196). Explicit memory depends on an "ability to focus attention and integrate elements of an experience into factual or autobiographical representations" (Siegel, 2010: 199-200).

Siegel (2010: 204) describes the trauma process neurobiologically. He notes that the chemical cortisol floods the system in stressful situations and is known to "block hippocampal function." However, since the hippocampus is integral to forming autobiographical memory, *explicit memory* is (at least partly) blocked from encoding. Simultaneously, this stress causes the amygdala to release adrenaline in response – and

thus, the *implicit memory* of the event is encoded in even greater detail than usual. As Seigel (2010: 204-205) explains:

> High levels of adrenaline act to sear into implicit memory traces of the original traumatic experience – the feeling of terror, the perceptual details, the behavioural reactions characteristic of fight-flight-freeze, and any bodily sensations of pain that were suffered.

To turn our attention back to the concept of the fragmented self, this hippocampal shutdown described above may provide insights into the 'detachment from reality' that some trauma victims experience, as it can create what Siegel (2010: 204) refers to as "a chemically induced form of dissociation." Herman (2015: 56) suggests that "these alterations of consciousness are at the heart of constriction, or numbing," and that this feature of the traumatic experience may actually be a biological mercy afforded traumatised individuals, offering them "a protection against unbearable pain." Thus, it could be said that the dissociative impact of the hippocampus going offline (and the accompanying potential lack of explicit memory encoding), in tandem with the inversely intricate encoding of implicit memory of the traumatic event (which may result in faulty *neuroception*), combine in unique ways which give rise to hypervigilant, intrusive and constrictive symptomology.

These observations are not new. Pierre Janet reaches similar conclusions in his studies on hysteria, which, Herman (2015) suggests, was the 19th-century version of what we, today, call trauma. Discussing Janet's work, Herman (2015: 48) notes that:

> people with hysteria had lost the capacity to integrate the memory of overwhelming life events… Traumatic memories were preserved in an abnormal state… severing…the normal connections of memory, knowledge, and emotion.

From the above, it is evident that the concept of a fragmented self, resulting from traumatic events, has been part of psychological discourse for some time already. However, to make sense of this experience of fragmentation from a neuro-phenomenological perspective, it is useful to briefly unpack the relationship between *implicit memory* and the characteristic form of misfiring *neuroception* which may emerge from traumatic events.

Firstly, it is crucially important to understand that *implicit memory* is distinct from *repressed memory*, which are memories hidden ('buried away') from conscious awareness. Instead, implicit memory is "experienced in consciousness but is not 'tagged' or felt as something emerging from the past… A reactivated implicit memory is fully conscious; it just *lacks the sensation of recall*" (Seigel, 2010: 198, *emphasis added*).

When considered in relation to our *neuroceptive* capacities, it is clear that implicit memory plays a role in the present-tense, biological processes of risk evaluation, because these memories are not experienced as *emerging from the past*, but rather *happening in the present moment*. As a result, someone's *neuroception* may judge a safe situation to be threatening, without knowing that this is because an implicit memory has been reactivated (for whatever reason) and is being experienced as part of the present moment. This is particularly noteworthy in relation to early developmental trauma, as it is believed that up until the age of two, the bulk of our memories are implicit memories – and only after that does explicit memory develop (Siegel, 2010: 199).

It is the centrality of implicit memory to the traumatic experience – and the concurrent lack of, or limited encoding of, explicit memory – which inform some trauma experts' suspicion of talk-based therapy in trauma treatment. Werbalowksy (2019: 22) notes that body-based trauma work does not rely on language to be effective and can thus "access the embedded roots of traumatic experience and create shifts that don't hinge on a narrative recall of the event." Furthermore, it makes plain sense to include the body in trauma treatment, since traumatic memories are linked to implicit memories – and these present-tense processes, experienced *in the body* as non-verbal fragments of affect and sensory response, can "wreak havoc on the client's experience" of self (Ogden, Minton and Pain 2006, in Werbalowksy, 2019: 23).

According to proponents of body-focused trauma interventions, this fragmentation, along with deep-seated denial and shame about the traumatic event, can combine to make cognitive and talk-based therapies at best ineffectual and, at worst, dangerous. Ogden et al. (2006 in Werbalowksy, 2019: 23) assert that even in benign cases the "visceral experience remains embedded," and Van der Kolk (2014) insists that emotional energy needs to be addressed before fear will release its vice grip on people impacted by trauma. In contrast to talk-based interventions, poly-vagal dance movement therapist, Amber Gray (2015:

172, in Werbalowksy, 2019: 23), asserts that body-based trauma work "unlock[s] the implicit memory… [and] access[es] the imagination" in a way that both heals and supports clients.

This link, between traumatic symptomology and the function of implicit memory, hints at other important neurobiological findings about how the "higher functioning areas in the neocortex, the most evolved part of the human brain, are less active when traumatic memories are triggered" (McMahon, 2017: 8). For example, neuroimaging brain scans conducted while stimulating traumatic memories indicated a deactivation of Broca's area, a part of the brain is linked to the ability to apply "semantic representations to personal experience to allow… communication or description" (Hull, 2002:107). For body-based therapy advocates, this further calls into question the ability of language-based, cognitive treatment approaches to provide meaningful (and safe) therapeutic assistance to trauma victims.

However, it is important to note that while this may be particularly beneficial for trauma-focused work with clients suffering from overt conditions like PTSD (for example), the inverse may also hold true. Namely, that within trauma-informed work, where trauma isn't necessarily the direct focus of the therapy, working with the body can (even unwittingly) tap into implicit traumatic memories. By way of a personal example, I recall an incident during the second week of a somatic movement training course where extended, deep, slow, bodywork triggered an intense emotional experience for me. This heightened state lasted several days and included intrusive thoughts and even an intense nightmare. The impression I got from the trainers was that this was par for the course, and – though I am comfortable with processing my emotions – it was nevertheless an intimidating (and unexpected) experience.

Of course, my experience wasn't located in a therapy context – it was training – but the experience certainly caught me off guard. From a therapeutic perspective, incidents such as this are important to remind us just how deeply and obliquely the implicit memories held within our clients can be accessed by body-based work. When we engage in bodywork, we run the risk of accidently retraumatising our clients if we unwittingly tap into the implicit traumatic memories and don't have mechanisms in place to contain them. Levine (2010) describes twin processes of *pendulation* and *titration* as central to his Somatic Experiencing: carefully moving between states of safety and then touching the

body's experience of the trauma; dipping in, and not flooding the body, with traumatic memories. I'll return to a discussion of these important principles later in this paper. For now, what is important to note is that trauma-informed work hinges on the importance of the biological experience of safety, which neuroscience continues to provide insights into, but which is always ultimately contextual, personal and experienced phenomenologically.

These key aims, redressing trauma and experiencing safety, also stem from giving voice to our clients in trauma-informed work. As mentioned earlier, one of the foundational principles of trauma-informed work, as outlined in the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014: 10-11) paper, is "empowerment, voice and choice" – and this directly relates to the fact that many traumatised clients "have been diminished in voice." Herman (2015: 225) notes that a pact of silence is often at the heart of interpersonal trauma, where "survivors who grew up in abusive families… cooperated for years with a family rule of silence."

From a neurophenomenological perspective, it is compelling to include the voice in trauma work – because denying the role of the voice, language and narrative may further entrench the experience of the voicelessness at the centre of many relational traumatic experiences. As Van der Kolk (2014: 356) puts it, "silence reinforces the godforsaken isolation of trauma." He continues to outline the fundamental paradox at the heart of trauma work I have previously described: while the relationship between the traumatic event and implicit and explicit memory seems to point to the limits of language in conveying this self-fragmenting experience, in many cases, "communicating fully is the opposite of being traumatised" (Van der Kolk 2014: 361).

With all of this in mind, it seems important not to neglect the role of the voice in the treatment of trauma. Studying the voice in therapy offers fertile ground for bridging the gap between cognitive and body-based approaches, which – at times – can seem at odds with one another. This is because working with the voice *is* working with the body, but it also links us strongly with our ability to coherently express our thoughts, feelings and experiences, to make known our needs and connect to those around us. Furthermore, from a neurophenomenological perspective, it is important to challenge the mind-body dualism into which this debate often becomes enmeshed – where language becomes the conveyer of mind alone, and never the body. Mindi Nettifee (2020: 2), in her dissertation on Depth Psychology, argues for a reframing of "voice as embodied sense." She challenges the

distinction between the language of the voice being categorised as *cognitive*, and the sounding of the voice as *embodied*. Instead, she argues for a conception of the voice as *embodied sense*, a formulation which implies that language constitutes part of our sensory framework (Nettifee, 2020).

To draw this chapter to a close, it is important to emphasise this deeply ambivalent, relational quality of the voice. As opposed to being either cognitive or bodily, the voice is always both – and this is promising for therapeutic intervention focusing on clients with a history of trauma. Nettifee (2020: 49) postulates that, in clients where the sensory dimensions of voice and language remain developmentally stunted (or maladapted) due to trauma, this could feed into the limitations of talk-based therapies. She instead invites us to "imagine a kind of voice and languaging that could be both 'bottom-up' and 'top-down'" (Nettifee, 2020: 49).

From this perspective, I argue that drama therapists are uniquely placed to be able to work with the sensible, sensing voice – and all its reflective, emergent, sensory and relational qualities. Therefore, it is to voice work, and the *felt sense* of the embodied voice, that I turn in the next chapter.

Chapter 6

The Voice and the Self: Practice and *Felt Sense*

> In every cry of every man,
> In every Infant's cry of fear,
> In every voice, in every ban,
> The mind-forg'd manacles I hear.
> (Blake, 1794: n.p.)

Colloquially, the phrase "finding your voice" points to the implicit understanding that one's voice and one's sense of self are closely and inextricably linked. Modern theatre voice practitioners bear this presupposition out in their work. Kristin Linklater (Linklater Voice, n.d.) often refers to her own voice teacher, Iris Warren, when describing the shift in voice training which occurred in the twentieth century: from the declamatory style which had dominated until that point, toward one which viewed the voice as "a human instrument rooted in the emotions, not just a musical instrument to be tuned and played" (Linklater, 2006: 19-20).

Interestingly, Linklater also provides an anecdote about Warren's voice work and trauma, and claims that the understanding Warren gleaned from it informed her voice training with actors. Linklater (Linklater Voice, 2018; *emphasis added*) writes:

> According to 'unofficial,' orally transmitted accounts… Iris was asked by a Freudian analyst if she could help a patient of his who was unable to speak about his traumatic experiences. Iris got him to relax, breathe deeply and *feel* the sound of his voice in his body. He immediately began crying, and with the flood of tears came a flood of words. The emotion had freed his voice. Iris started adapting her voice exercises to include emotional impulse… Her exercises were revolutionised to find their origins deep inside the emotional body rather than be managed by abdominal and intercostal regulation.

In this way, Warren's, and then later Linklater's, voice training would enter the realm of psychophysical work. Warren (in Linklater, 2006: 6) was known for saying, "I want to hear *you*, not your voice," a sentiment which departed radically from the style of vocal theatre training at the time. The fact that this trend coincided with a move in theatre towards psychological realism and eventually film acting, driven by a popular form of American Naturalism deeply influenced by Stanislavski's methods, falls outside the purview of this research paper. Crucially, however, it was this movement towards the

psychophysical use of self for truth telling, and away from proclamation, which solidified the trend towards holism in voice training (Linklater Voice, 2018).

Linklater (2006: 19-20), furthermore, describes shifting social attitudes in the 1960s, when Eastern mind-body practices started becoming more mainstream in the West and had the effect of further entrenching the idea of using the whole self (including the voice) to break through limitations created through social pressures, lived experience and trauma. It is for this reason that Linklater calls actors 'emotional warriors', because to work with themselves, and their voices, in this way requires bravery (Linklater, 1997).

This relationship between the self and the psychophysical use of the voice is emphasised by modern theatre voice trainers, too. In his forward to Cicely Berry's (1973: 1) book, *Voice and the Actor*, Peter Brook points to a focus in Berry's work on freeing the actor's "natural instincts [which] have been crippled… by the conditioning of a warped society." Indeed, in her first chapter on Vocal Development, Berry (1973: 11) consistently links limitation in vocal production to personal psychophysical sources. She notes that this embodied vocal training cannot be separated from "your whole self," and thus, your ability to "respond instinctively to any situation…lead[ing] you to know something more of yourself" (Berry, 1973: 11). Later, Berry's student Patsy Rodenburg (2005: 12) builds on this perspective, describing her work as connecting students with their "right to speak" after what a lifetime of "vocal recriminations… have done to… [their] sense of self-esteem."

These voice teachers suggest, therefore, that by addressing the habitual tensions held inside the body, their psychological sources will make themselves evident. Consequently, liberation from these constraints frees both the voice and the self.

However, Catherine Fitzmaurice, another student of Berry's, discovered that for deeply ingrained habitual patterning, a stronger attempt to release physical tension was necessary before breakthrough was possible (Mellian, 2015). She thus combined what she learned from Berry about voice placement and the breath with more rigorous body work, incorporating her interest and experiences in Reichian Therapy, bioenergetics, Eastern body practices (such as yoga and shiatsu) and elements of Alexander Technique (Mellian, 2015: 19). Fitzmaurice's focus on the 'cracking open' of the body is based on her

experience of rigid body habits and their interference with vocal production (which we know has a profound relationship with our experience of self). Her experience of Reich's body-based therapy brought the concept of *muscular armouring* into her work, which Alexander Lowen (1983: 13)– the founder of bioenergetics – describes as follows:

> Armouring refers to the total pattern of chronic muscular tensions in the body… protect[ing] an individual against painful and threatening emotional experiences… dangerous impulses within his own personality as well as attacks from others.

The body in Fitzmaurice work is, evidently, a container that needs to be freed of deep unconscious patterns of tension and then consciously used in voice work to create new possibilities for the self. As Mellian (2015: 20) notes:

> Fitzmaurice's work is centred on trying to free the actor from the control of habitual tension that is dictated by the autonomic nervous system – the system responsible for the body's unconscious, automatic and involuntary functioning – while connecting with the central nervous system (the source of conscious decision-making and action).

This has clear correlations with the neurophenomenological perspective at the core of this research paper. The impact of biopsychosocial influences on a person are experienced in a bodily fashion. In this light, vocal communication is both the expression and the result of our interpersonal neurobiology. Thus, to restore spontaneity instead of rigid response patterns – and particularly in cases where trauma has skewed neurobiological development – we need to break free from the habitual autonomic nervous system patterns of experience that form the foundation of our interactions and relationships.

Arthur Lessac, in line with the teachers discussed so far, proposes that voice work "resists compartmentalisation because vocal life does not, indeed cannot, exist apart from physical and emotional life" (Lessac, 1997: 10). This 'sensing into' the self and the body is central to his own *kinesensic* form of voice training, which "respects and listens to the *body-whole* – the entire human organism… an intrinsic sensing process where energy qualities are physically felt and perceived, then tuned and used for creative expression" (Lessac, 1997: 3). Lessac (1997: 4) refers to as the *kinesensic feeling* process as a "built in therapeutic control factor in voice building." This training includes "inner harmonic sensing," which is based on the idea that "our human sensing system functions not only through the five outer fundamental senses… but also through an inner harmonic sensing system" (Lessac, 1997: 4).

This resonates with Gendlin's (1981: 32) notion of the *felt sense*, which similarly asks us to "listen in" to our whole being. Peter Campbell explains that, according to Gendlin, the potential for therapeutic change lies in "that fuzzy, complex, multi-faceted way of knowing… called the *felt sense*" (see *FELT SENSE, Gene Gendlin, Peter Campbell*, 2016: n.p.).

Gendlin was a philosopher who discovered this phenomenon of the *felt sense* during research he conducted alongside Carl Rogers around the topic of "what led to success in psychotherapy" (Rappaport, 2009: 23-24). This research consisted of recording, listening to and transcribing audio tapes of therapy sessions to ascertain commonalities in what led to client change and therapeutic success or failure. Rappaport (2009: 24 *emphasis added*) notes that what they discovered was that rather than success stories correlating with the content of the session, or the therapist's theorical orientation or technique:

> The crucial factor was *how the person spoke*… clients who were able to hear how they were "inside," to a place beyond the cognitive mind… demonstrated progress… Successful clients in therapy knew how to listen to their whole body/mind sense of their experience. They knew how to hear when the word or words matched, or didn't match, their inner experience.

While some clients had a natural ability to "check-in" with their felt sense, Gendlin wondered if people could be taught these skills towards the goal of healing. To this end, he developed Focusing, a six-step process to teach people to connect with, and express, their bodily *felt sense*. This practice is now used in numerous psychotherapy techniques which grew from it (Rappaport, 2009: 24-25).

As researchers such as Van der Kolk (2014: 418, *emphasis added*) stress, bodily awareness is of crucial importance in relation to trauma: "noticing… helps you stop trying to ignore what is going on inside you… Once you start approaching your body with *curiosity* rather than with fear, everything shifts." This entreaty to "curiosity" rather than "fear" harmonises with Gendlin's concept of the "focusing attitude," where people are invited to be "welcoming and friendly," and to "keep company with" whatever arises in their *felt sense* (Rappaport, 2009: 26-27).

What is interesting to note is that it was by *listening to the voices* of clients that led Gendlin and Rogers to identifying this embodied process of "checking in" as a key driver

of therapeutic change. Rappaport (2009), whose writing on focusing-oriented art therapy is very useful in making sense of Gendlin's work, also regularly refers to the voice of her clients in her case studies. She notes that the therapist works with the whole of what the client is communicating in any given moment, "through words, energy… tone of voice" and other body language, always checking in with their own *felt sense* to reflect and clarify what is received (Rappaport, 2009: 54). The voice lies at the centre of focusing-oriented psychotherapy, serving as a guide which may offer insight into the inner world and *felt sense* of clients. At the same time, both the therapist's use of their own voice, and the client's use of theirs, are tools by which this *felt sense* can be accessed and understood inside the therapy room.

In drama therapy literature, the body receives a fair amount of attention, with pioneers such as Jerzy Grotowski and Rudolf Laban guiding our praxis. However, within embodied practice, very little focus is given to an intimately related facet of embodied theatrical training: the voice. Considering the deep and credible links between voice work, the self and the *felt sense* of therapeutic change, this is a pity. Thankfully, there are voice psychotherapists like Diane Austin and Paul Newham who can provide guidance about the therapeutic aspects of voice work, so that we may look to theatrical voice traditions and begin to unpack drama therapy's potentially unique contribution to trauma treatment.

Diane Austin (2008a: 21), a music therapist who pioneered vocal psychotherapy, confirms what the theatre voice practitioners assert about the voice and its relationship to the self: "the process of finding one's voice, one's own sound, is a metaphor for finding oneself." She describes this process in terms of the *recovery of self* (Austin, 2006: 5), which coheres with the neurophenomenology of trauma which we explored earlier, as well as the importance of establishing or returning to an experience of bodily safety. According to Austin (2008a: 132), singing heals the divide between "mind-body, thinking-feeling, conscious and unconscious, for a more 'complete sense of self'."

In a recent paper, establishing strong correlations between Austin's technique and the theory of a dialogic self, Austin and fellow researcher Elisa Monti assert that both concepts have at their heart the "idea of self as [a] multiplicity of parts" (2018: 160). Austin's work is built on Jung's notion of the "psyche as made of numerous parts and roles and layers that make them… complex" (Monti & Austin, 2018: 160). She uses the

breath, natural sounds, toning, vocal improvisation, vocal holding and free associative singing to recover a psychophysical sense of self through integration of these different parts (Clements-Cortès, 2013: 40). Early on in her career, Austin worked with clients who had experienced developmental trauma, and the techniques listed above served to inaugurate an embodied experience of safety, and to re-establish ease in the most primary of interpersonal interactions – our vocal expression. As she notes, with courage, "trauma survivors… can break through the walls of isolation… work through the shame" and allow themselves to express these difficult past experiences (Austin, 2001: 30).

However, though the voice is central to healing – and studies on singing for example, have been shown to improve people's health (Austin, 2008a: 21) – the act of singing or using one's voice in another's presence can be extremely daunting for some people. Since our sense of self is often so wrapped up in our voices, people who feel a need to hide themselves away may adopt "restrictive vocal behaviour in an attempt to conceal" themselves (Nobel, 2015: 17). We must remember that the voice connects us to our earliest developmental experiences. As Austin reminds us, "the vocal interaction in speech and song between mother, father, other caregivers, and the child, and the reliability and continuity of this reciprocated sound is critical to the child's developing sense of self" (2015: 623).

Austin highlights the type of psychophysical habitual patterning we have already heard theatre voice practitioners discuss, though from a psychotherapeutic perspective: "when caught in a traumatic complex (Jung, 1969), musically and vocally, the client seems to repeat certain vocal compulsive patterns that are stereotypical of that type of complex" (Monti & Austin, 2018: 167). Yet, despite the inherent vulnerability that exists in voicework, Austen concludes that – if it can be entered into in a way that institutes a psychophysical safety from which to explore more difficult experiences – then establishing a safe and comfortable relationship with one's own voice is a vital step of trauma recovery, especially since "the traumatised person often survives by forfeiting her own voice" (Austin, 2001 in Monti & Austin, 2018: 167).

Paul Newham's Therapeutic Voicework, meanwhile, also grew out of clinical work with the voice and trauma patients. He was a student of Alfred Wolfsohn, who, as mentioned earlier, began his explorations into the therapeutic aspects of the voice to treat his own post-war PTSD symptoms. Wolfsohn's work was developed from the hypothesis that

voicework could release the "psychic, body-held trauma" which he experienced so viscerally after the war (Overland, 2005: 28). In his book, *Therapeutic Voicework*, Newham (1998: 179-201) cites Reich and Lowen's contributions to the understanding and development of vocal therapy work, as well as Freud's early psychoanalytic work, as influential on his own thoughts about the role of the voice in psychotherapy.

We have already discussed how Reich's *muscular armouring* influenced Catherine Fitzmaurice's voice training, and Newham shares Reich's central psychotherapeutic hypothesis, namely that "the elaborate armour of strongly defended emotional attitudes… manifests in the general muscular state of posture and physical carriage… as 'chronically fixed muscular attitudes'" (1998: 195). Later, Reich's student, Alexander Lowen, who was similarly committed to the "discovery of the unity of psychological and bodily experience" (Lowen, 1998: 196), continued to expand on Reich's work. Newham (1998: 199) notes that Lowen extended his teacher's interest in the breath to include analysing and understanding vocal sounds, introducing:

> the idea that the quality of a voice mirrors the nature of the underlying emotional dynamics. It was a simple logical extension of his belief that freeing the body resulted in a freeing of the psyche… that a loosening of the voice resulted in the same psychological liberation.

However, while these theoretical positions held by Reich (and later Lowen) were critical of Freud's talk therapy, Newham (1998: 184) notes that, at least in his early writing, Freud inadvertently highlights the voice as an imperative and necessary tool for healing. This is because Freud suggests that the cathartic recollection of traumatic memories could rid people of psychophysical ailments, adding that these retellings should be imbued with "the full emotional excitation which had been denied at the time of its occurrence" (Newham, 1998: 184). This is not only strikingly similar to Levine's (2008: 26-27) neurobiological understanding of trauma responses as energy trapped in the body, but also suggests that a simple linguistic description of the event without emotional affect is not sufficient for healing.

Much like with Gendlin's discovery of the *felt sense* and its importance to therapeutic change, Newham (1998: 184), following Freud, concludes that it is the voice, and

specifically its ability to connect with and express the emotional content of memory in a visceral embodied experience, that is central to healing:

> It was, therefore, not the words alone that performed the cure but the voice… its acoustic tonal and timbral quality… Freud's medicine was not, in fact, a talking cure but a vocal cure.

Newham's work builds on Reich's development of a system designed to express the primal sounds of the traumatic experience of war, but his methodology includes understanding the voice from evolutionary, archetypal, and – most importantly for trauma studies – developmental perspectives. Newham (1998: 101) explains:

> Therapeutic Voicework is founded upon an understanding of the developmental psychological and physiological history of vocalisation in the early infantile life… [to] enable the voice to find release from the developmental obstacles, problems and hinderances which few people are fortunate to escape.

As discussed in Chapter 1, the mother's voice is first felt and heard in the womb, creating a sonic amniotic environment where we develop in utero; before we enter the world, we experience voices but cannot use our own (Newham, 1998: 102). After birth, we go through numerous phases of vocal development, some in relation to our caregivers, and others simply alone. Newham (1998: 102-120) notes that even hearing-impaired babies create sounds such as cooing and babbling. These are phylogenetically inherited vocalisations, instinctual biological patterns of development. He links these reflexes to an innate capacity for musicality; however, it equally pertains to our vocal ability to self-soothe using the *felt sense* of the voice. Newham (1998: 130) cites Winnicott, who claims that the infant sounds become a "transitional object… in the absence of the mother."

In this chapter, I outlined the strong psychophysical connections between the voice and the self (connections which appear in both theatre voice training and vocal psychotherapeutic approaches), as well as the importance of the experience and expression of the embodied voice to therapeutic change. In the next section, I will discuss these ideas in greater detail and link them to the neurobiology of trauma, trauma-informed approaches to therapy and current drama therapeutic practices.

Part Three: Synthesis and Integration

Chapter 7
Weaving It All Together: Discussion of the Literature

7.1 The Threads

> *As you speak, so is your heart*
> (Paracelsus in Nettifee, 2020: 253)

In this discussion section, I will highlight some of the most important strands which have emerged from the literature I have examined. I will try to weave these together to create a clear picture of the relevance and applicability of embodied voice work to trauma treatment. There are numerous key themes which will be threaded throughout this section. However, the most important is that traumatized clients can benefit from a phenomenological focus on the 'here and now' of bodily experience, which builds a present-tense, subjective language that can be useful for therapeutic work and managing trauma symptomology.

Other key threads include, from Chapter 3, the notion that unresolved trauma in people relates to trapped, undischarged survival energy (Levine, 2010; 2008), and the importance of establishing "an environment of *relative* safety" (Levine, 2010: 74) for clients, which is also emphasised in the principles of trauma-informed work (SAMHSA, 2014: 9). This theme of bodily safety relates to Porges's concept of *neuroception* (2018: 58), a "reflexive mechanism [which describes a] neural evaluation of risk" below "conscious awareness," as well as Gendlin's notion of bodily *felt sense* (which I discussed in Chapter 4). These threads are also tied to the neurobiological experience of fragmentation investigated in Chapter 5, which involves the encoding (and present-tense experiencing) of implicit traumatic memories.

These themes will weave in and out of the overall structure of my argument. The basic structure will begin by exploring how phenomenological voice practice collapses the mind-body dichotomy, and gives us neurophenomenological entry points into both top-down (cognitive, talk-based) and bottom-up (body-based) therapies. My attention will then shift to outlining specific practical examples from theatre voice practices which are

relevant to this therapeutic approach and comparing these techniques to other trauma-based and therapeutic voice traditions.

Before delving in, it is important to note that, from a neurophenomenological perspective, all experiences are embodied ones. Gendlin (in Heuman, 2011: n.p.) explains:

> The body includes behaviour possibilities…The thinking that you are doing varies your behaviour possibilities. You might think of something and then see that you can do such and such, which you hadn't seen before. So the thinking changes the behaviour possibilities, and that in turn is reconstituting your body in various ways… Your body takes everything you learn with you. But your body understanding is more than what you learned. It absorbs what you learn, and then it still implies further. A body isn't only an *is*; it is an *is and implies further*.

Therefore, in alignment with Nettifee (2020), a crucial pillar of my argument is that language should not be seen as purely cognitive and divorced from the body – and, furthermore, that embodied voice work offers opportunities for treating clients in an effective, holistic fashion, no matter from which direction (top-down or bottom-up) one begins the process. I will suggest that the voice can be valuably conceived of as a bridge to effective, holistic trauma treatment, integrating all aspects of a person's experience, including their traumatic past, in the here and now. In addition, I hope to show that drama therapists can offer a unique and important contribution to this field, since they have experience in developing and working with the spoken voice. As Linklater notes, "to free the voice is to free the person, and each person is indivisibly mind and body" (2006: 8).

7.2 In the Beginning

To begin my argument for the viability of the voice as an integrative tool in the treatment of trauma, we must remember that the *body keeps the score*, per Van der Kolk's seminal phrase, holding all that has happened from its earliest moments. As Gendlin (in Heuman, 2011: n.p.) explains:

> The living body has many different meanings. The body builds itself from the embryo on. The structure is not like a machine in the sense that first you build a machine, then you turn it on. It's turned on from the first cell, and it develops itself, and that developing never stops.

Thus, for every individual, the experience of voice has *always been there*, encoded in our earliest implicit memories. As I discussed in my opening chapter, from the dark and wet experience of hearing and feeling the all-encompassing voice of our mothers in utero, to the "sonorous envelope" that surrounds us in early infancy described by Newham (1998: 125), the human experience of voice is formative, relational and environmental. As Newham asserts, any caregiver is "more than… a conversant partner for the baby's acoustic emissions… [but] also a container, an acoustic equivalent to a safe, delineated and boundaried spatial area" (1998: 125).

Yet, while this may hold true for infancy, is there good reason to believe in the primacy of the voice as human beings enter later developmental stages? The next step in conceiving of the voice as a bridge between past and present experience is to understand how it continues to play a role during the early stages of cognitive and emotional development.

7.3 Proximity, Social Bonding and Safety

> *But at four what she wants is self-location*
> *and uses her voice as a porpoise uses*
> *its sonar: to find herself in all this space.*
> (Dobyns, 1987 in Suny Broome, 2018: lines 11-13)

Porges (2011) also refers to Newham's "sonorous envelop" as essential to the experience of *proximity* and connection between a baby and their caregiver. He explains that for any social bond to form, people need to be in proximity to one another – but that the baby-caregiver dyad is unique because of the dramatic "contrast in mobility" between the two parties, with the "infant having limited abilities to move toward or away" (Porges, 2011: 332) from the caregiver. In the early phases of life, where that *proximity* and bonding could mean the difference between life or death, the voice is a vital tool in reducing the distance between the caregiver and the baby – connecting them, constantly, in the medium of sound.

The consequences of early, pre-verbal trauma within this unequal caregiver dyad are significant – but, beyond this consideration, there are implications for the early development of the voice in the therapy room, particularly in relation to establishing safety for our clients. Porges (2011: 332) explains that while a new-born's corticospinal neural

pathways will take years to mature, the same is not true for our corticobulbar pathways, which form part of establishing social bonds and thus developing our social engagement system. Porges (2011: 332) notes:

> The striated muscles of the face and head… are sufficiently developed at birth… to signal [the] caregiver (e.g., vocalisations, grimace) and to engage the social (e.g., gaze, smile) and nutrient (e.g., sucking) aspects of the world.

Interestingly, vocal training engages with and fosters these corticobulbar pathways from both a *felt sense* perspective, as well as a technical elocution perspective – both of which are relevant for our ability to detect social safety cues throughout our lives. To make this point explicit, Porges's (2011: 333) description of the interconnection and importance of these processes is worth quoting at length:

> The muscles of the face and the head influence both the expression and receptivity of social cues and can effectively reduce or increase social distance. Behaviourally this is observed as facial expressions, eye gaze, vocalisations, and head orientation. Neural regulation of these muscles can reduce social distance by making eye contact, expressing prosody in voice, displaying contingent facial expressions, and modulating the middle ear muscles to improve the extraction of human voice from background sounds. Alternatively, by reducing the muscle tone to these muscles, the eyelids droop, prosody is lost, positive and contingent facial expressions are diminished, the ability to extract human voice from background sounds is compromised, and the awareness of the social engagement behaviours of others may be lost.

His reference to "muscle tone" here suggests that these striated muscles, which are so crucial to our ability to socially connect with others, can be developed through processes of training (such as voicework) as well as ordinary, 'natural' use.

In Porges's view, the voice and its embodied mechanisms are central to our social engagement system, and thus the *proximity* required for social bonds to form. His concept of *proximity*, therefore, seems to have less to do with spatial dynamics, than *social distance*, which is regulated via the cues of our social engagement, ventral vagal system. This embodied process of social engagement, which begins budding and evolving in our earliest development, functions bi-directionally – influencing both our ability to connect with others, and our capacity to read their social cues. In Porges's (2011: 333) words:

> The neural regulation of the striated muscles of the face and head function both as an active social engagement system that reduces psychological

> distance and as a filter that can influence the perception of the engagement behaviour of others.

This has obvious implications for safety in the trauma-informed therapy room, as the interplay between social engagement cues (of which the voice and its various mechanisms play a large part) is central to establishing safety within the therapeutic alliance between therapist and client (whether the starting point of the therapy is talk- or body-based).

Porges (2021), in fact, notes that many therapeutic interventions begin with the breath to calm their client's physiological state, since *neuroceptive* dysregulation in the therapy space is a hinderance to therapeutic work. He explains that the breath is the most direct "neural pathway that turns off threat" responses (Porges, 2021: paragraph 18). Even talk-based CBT sessions may, for example, invite their clients to consciously extend the exhalation of their breath, which "acts on the fibres of the ventral vagus nerve ferrying signals between visceral organs and the brainstem, where autonomic control of body organs originate" (Porges, 2021: paragraph 18). He does caution, however, that there are times when sensitivity to trauma symptomology makes focusing on breathing challenging and, in these instances, Porges (2021: paragraph 18) proposes that extending verbal phrasing, humming and even chewing may also stimulate the "nerve fibres of the muscles of the face, head and oral cavity, [and thereby] open the social engagement system."

Physiological intervention is one way of establishing a *neuroceptive* feeling of relative safety, through breathing activities aimed at self- and co-regulation, but sometimes this is initially unavailable to certain clients, particularly where trauma is involved. From a neurophenomenological perspective, Porges reminds us that sometimes we also have access to top-down interventions to assist in regulating the physiological state, by trying to engage these clients through gentle questions about times of joy and safety, such as "*What puts a smile on your face?... [or] Was there a time you enjoyed getting up in the morning? Tell me about that*" (2021: paragraph 21).

Here, the goals remain the same – to regulate the physiology of the client (and the therapist, who is no doubt impacted by the state of the client in some way), and to create a felt sense of *neuroceptive* safety so that therapy work can proceed and be effective. Therefore, regardless of whether a therapist's approach is top-down or bottom-up, Porges

(2021: paragraph 20) insists that this "shifting [of] physiological state restores access to your whole self." This, in turn, results in the client having access to more of themselves to engage in therapy.

7.4 Collapsing the Mind-Body Divide: Top-Down Approaches

It is for these reasons that I am suggesting that, from a drama therapeutic perspective, working more consciously with our client's voice and its capacities seems particularly relevant to our work and our ability to meet the client *where they are*, offering a holistic entry point for therapy (whether beginning in talk, or with the body). The voice develops from primal, reflexive beginnings, to a tool for self-soothing and sensing, to a complex aural and linguistic sensibility involving textual and subtextual meaning. Yet, throughout this evolution, the voice retains its characteristic of reaching both *inwards* (as a means of sensing) and *outwards* (as a means of expressing), and never loses its earlier capacities, even if they become hidden under layers of social or traumatic conditioning.

This is why the voice has the potential to collapse the mind-body divide, and I am in agreement with Mindy Nettifee (2020: iii) when she insists that we lose something by conceiving of language as a solely cognitive process. Indeed, I believe that Gendlin's concept of the *felt sense* – a bodily experience – supports collapsing this distinction, too. Gendlin (in Heuman, 2011: n.p.) asserts:

> The body can think; or at least… when we think, the body is part of *that*… the body has language; when we talk, the body is part of *that*—it's not just the muscles or the vocal cords… the body is linguistic and logical. It senses clarity and also senses itself.

Reflecting on the gentle questions that Porges offered above (as a means for the client to find regulation), it is worth remembering that it would be through the client speaking – *talking about* whatever it is that puts a smile on their face, for example – that they may be able to access that bodily *felt sense* of joy, calm or aliveness. Since, as I discussed in Chapter Five, trauma fragments our ability to experience our whole selves in the present moment, developing the potential of the voice at various phases of the therapy process can reconnect disparate parts (or processes) which have become, as Herman (2015: 48) describes, "severed" from one another. For example, a client's bodily experiences and the particular stories they tell – from the way they tell them, to the words they choose to

express the narrative – are all connected and can be expanded and even transformed through conscious focus on the voice.

One way of exploring the potential of the embodied voice from a more talk-based, top-down perspective (particularly where clients may be resistant to bodily engagement), could be to gradually increase the linguistic-*felt sense* connection. This could begin with the use of the therapist's own voice, connecting inward and outward purposively as a model, but also as a co-regulator for the client – approximating and reflecting the embodied *felt sense* of what we understand their verbalisation to be. Beyond this, the therapist could encourage the client to taste the sounds, words and language which emanate from them at pertinent moments in the therapy session, or – at the very least – draw their attention to the sensations created in the body as they speak (e.g., in their face, chest or throat), and notice what impact having that awareness has on them.

This notion supported by polyvagal dance movement therapist Amber Gray (2018: 210 in Werbalowksy, 2019: 21), who insists that everything from "the tiniest micromovement to large, expressive gross motor movements can initiate shifts in [our] physiological state via the nervous system." Thus, even slight awareness of vocal sensation in the body, never mind an expansion of the voice and consequently the breath, can create a physiological shift for clients and help them prepare for effective therapeutic work.

What I am suggesting here is that, even within a talk-therapy (top-down) framework, gently highlighting the embodied aspects of the voice aligns with the idea of bringing awareness to, and establishing a subjective language to describe, the phenomenological experience of the here and now with the client. This is central to the neuro-phenomenological work of Ataria et al. (2019: 209) that I discussed in Chapter Three, as well as Levine's Somatic Experiencing detailed in Chapter Four. Moreover, this focus on the *felt sense* of the voice in the body while speaking respects Levine's (2010: 74) insistence on "support[ing] initial exploration and acceptance of sensation" as an important step when working with clients who have experienced trauma.

Further to this, I also believe that this expanded awareness establishes a greater balance between a client's "sense of bodily ownership" and their "sense of agency" (Ataria et al. 2019: 206), an important equilibrium that can be thrown off due to trauma. It also guards,

to some extent, against the pitfalls of what Ataria et al. (2019: 209) call "naive introspection," by connecting verbalisation to a present-tense bodily experience.

7.5 Collapsing the Mind-Body Divide: Bottom-Up Approaches

In terms of bottom-up approaches, meanwhile, drama therapists have a myriad body-based practises available to them, which they can use to create a safe and effective treatment program for their clients. Many of these practises are easy to triangulate with other body-based trauma treatments such as Levine's (2015, 2010, 2008) Somatic Experiencing, and the neuro-phenomenological perspective put forward by Ataria et al. (2019). Levine (2010: 279) advises:

> Embodiment is about gaining, through the vehicle of awareness, the capacity to feel the ambient physical sensations of unfettered energy and aliveness as they pulse through our bodies. It is here that mind and body, thought and feeling, psyche and spirit, are held together, welded in an undifferentiated unity of experience.

Levine (2010: 74), who is committed to a bottom-up, body-first approach, offers nine principles for "working with traumatic reactions." Once the first three are firmly and sequentially instituted, the other six may be utilised in a non-linear fashion, depending to the needs of each client. I would argue that the first three – discussed in Chapter Four and briefly recapped below – are in fact, all in service of a bodily experience of safety: [1] establishing relaxed social engagement through the therapeutic alliance, as well as [2] becoming comfortable with interoceptive experiences and [3] developing the ability to pendulate attention between alternate bodily experiences. On this past point, Levine (2010: 79) explains that for clients with a trauma history and a dislocated sense of self, pendulation builds confidence which assists with future therapeutic work.

Furthermore, these steps simultaneously serve to build the client's interoceptive capacity in a safe and supportive environment. Critchley and Garfinkel (2017: 7) describe *interoception* as "the afferent processing of signals that originate within the body [and] which refer to the state of the body." Consider the link between our heightened *interoceptive* experience of threat response states, and our *neuroceptive* processes for evaluating risk in our environment. Conscious breathing and body awareness practices are central to developing our interoceptive capacities. However, traumatic experiences can

sometimes make those inner sensations overwhelming. Therefore, it is important to establish comfort and work with pendulation to help the client develop their interoceptive capacities in a way that promotes bodily safety and mitigates the risk of retraumatisation.

I propose that while working to develop our client's comfort with, and *interoceptive* awareness of, certain voice practices could help to create the necessary conditions for effective trauma therapy to take place. In the next section of this paper, I will present a range of practical voice practices that could achieve our fundamental goals of establishing a sense of bodily safety in the client and creating a subjective and embodied language to use in the therapy room.

7.6 The Body as Container: Boundaries, Breath, Common Sounds and Relative Ease

To begin with, Levine (2010: 115-116) emphasises the importance of bringing into awareness the client's own body boundaries – to think of the body as a *container*, including the muscles and skin. He suggests exercises such as tapping the skin all over the body (see *Treating Trauma: 2 Ways to help clients feel safe, with Peter Levine*, 2017), or to use "a hand to grasp and gently squeeze" (ibid., n.p.) the muscles throughout the body – the arms, legs, shoulders and so on. These exercises, common to theatre vocal warmups, not only bring awareness to the skin, which contains the body, but also gently begin to release tension and create some unhabitual micromovements within the body.

When developing *interoception* and global body awareness, it is important to bring to attention how these activities impact our inner state. The voice teacher Linklater (see *Kristin's 10-minute warmup*, 2020) pauses after tapping her skin in this voice warmup and brings her attention to the skin and the muscles – developing awareness of the external and the internal sensations and state-shifts. Levine (2010) also highlights the importance of paying attention to the sensations on the skin and inside the muscles during these exercises. He explains that "as body consciousness grows, so, too, will a more palpable sense of boundary awareness, as well as greater aliveness" (2010: 115-116).

Releasing some of these micro-tensions can, in turn, release the breath. As already noted, the breath is a direct key into physiological state changes and is vitally important within trauma work and voicework. Diane Austin (2015: 623) notes that "at the core of Vocal Psychotherapy is the… physical and psychological benefits of deep breathing." She goes

on to quote Linklater (1976: 12 in Austin, 2015: 623), who makes the connection between the breath and emotions, claiming that "as long as we are emotionally protective our breathing cannot be free." Thus, if a focus on the breath is challenging for certain clients, we may still be able to influence the quality of the breath by gently releasing bodily tension, because, as Austin notes, "there is reciprocity between the physiological and the psychological effects of breathing" (2015: 623).

Other suggestions Austin puts forward to release tension and obliquely impact the breath are "natural sounds and movements and toning… [which] can increase awareness of the breath and bodily sensations while also providing an outlet for emotions and spontaneous vocal expression" (2015: 623). She suggests utilising commonplace sounds and movements, including moaning and groaning, before beginning to sing or improvise. She claims that this type of natural vocal activity "usually increase[s] the duration of the exhalation and relaxes and prolongs the inhalation leaving the client feeling more embodied and present" (Austin, 2015: 623). She further notes that, during this phase of the work, clients are often surprised by the "primal… intuitive and instinctual sounds" which emerge (Austin, 2015: 623). It is worth emphasising here that, already at this stage of voicework, a deeper connection with the breath and an innate spontaneity begin to emerge – embodied qualities which are often negatively impacted by trauma events.

Austin's use of natural and commonplace sounds and movements immediately made me think of what theatre voice trainer Arthur Lessac (1997: 6) calls the "familiar event." These are physical and sometime imaginative activities which are "performed with ease" because of their familiarity and association with pleasurable bodily experiences (Lessac, 1997: 6). He reports that not every type of *familiar event* will work the same way for each person, since everyone is unique. However, what is crucial is that *familiar events* are pleasant, familiar and instinctual, and "therefore never subjected to habit-patterned, non-thinking, conditioned functioning" (Lessac, 1997: 6). Examples of such events include yawning, sighing, smelling a favourite scent or whistling. All these activities offer a natural breathing experience and/or release of sound which can be attended to and used in the therapy room as a bodily *felt sense* of ease.

It is noteworthy that the *familiar event* has resonances with Levine's (2010: 74) first three essential building blocks for working with trauma. Remember this exercise works to first establish a bodily experience of relative safety; secondly, to support initial exploration and

acceptance of sensation (by focusing first on a comfortable sensory experience); and then, thirdly, to set up a comfortable bodily state to return to when speaking becomes stressful. From a trauma-informed drama therapeutic perspective, I suggest that this could be a useful starting point for engaging with difficult content: the therapist could invite a bodily experience of a *familiar event*, prior to the client verbalising any issues. In fact, the *familiar event* could be discovered and explored at the outset of working with the client and could become a recurring starting point in each session, a safe base from which work always begins. In addition, this regular repetition would increase *interoceptive* awareness of the sensations of the familiar event, making it ever more accessible.

Vocal toning, meanwhile – such as the sustained use of vowel sounds – also offers a gentle and oblique way of releasing the breath and releasing bodily tension, as it not only extends the exhalation, but also establishes safety within a steady sensory experience. As Austin (2001: 26) asserts:

> The vibrations we produce, nurture the body and massage our insides… [they] break up and release blockages of energy allowing a natural flow of vitality and a state of equilibrium to return to the body.

Here, once again, it is pertinent to draw explicit connections to theatre voice training. Lessac's (1997) *kinesensic training* includes a lovely technique called the Y-buzz, which assists in exploring sustained sound while minimising unnecessary tension. Lessac (1997: 128) writes:

> The Y-buzz sensation is a protection device against strain… the vibrations… are so relaxing and refreshing that you will begin to anticipate, search for, and welcome them whenever you speak.

While drama therapists may not need to worry about vocal strain and overuse concerns for their clients in therapy, the Y-buzz may yet offer useful preparatory work for connecting to, and broadening awareness of, the sensory aspects of speaking.

It is worth highlighting, too, that this technique is much like one Levine (2010: 125) uses in his work. Similar to the vibratory and sensory aspects of the Y-buzz, Levine borrowed and adapted the "vooo" sound from Tibetan chant practices (2010: 125). He affirms Austin's earlier claim about sonic vibrations "nurturing our bodies" (2001: 26), and also reminds us of the positive impact of sustained vocal vibration on the vagus nerve: "this

sound opens, expands and vibrates the viscera in a way that provides new signals to a shut-down or overstimulated nervous system" (Levine, 2010: 125).

7.7 Voice and Language: Memory, Imagination and Felt Sense

A commonality I picked up between voice therapies and theatre voice training is the use of imagination and visualisation, which can be valuable in drawing awareness to and developing the bodily processes of verbalisation. Linklater (2006: 174) explains that one of the core goals of voicework is to "re-establish the visceral connection of words to the body," and that visualisation and the use of image is another strategy towards this end. For example, Lessac's (1997: 6-7) *familiar event* as discussed above makes use of imagination: someone may speak as if they were whistling, or by imaginatively inhabiting a particular attitude or energy. Even humming can imaginatively be imbued with a colour or fragrance, thus ensuring "the mind… [and] sounds begin to have some content" (Linklater, 2006: 81).

On the other hand, Lessac (1997: 206-210) suggests that bodily experiences can uncover and, themselves, *produce* personal imagery, another very useful tool for the therapy room. While detailing Lessac's (1997) intricate *kinesensic* approach falls outside of the scope of this paper, what is pertinent is that it relies on "the feeling process" (Hunt, 2009: 100). Lessac (1997: 3-4) suggests that *kinesensic feeling* can help expand someone's access to their creative and expressive capacities:

> Kinesensic training [is]… an intrinsic sensing process where energy qualities are physically felt and perceived, then tuned and used for creative expression… [a term I coined] to better describe the neurophysical sensing process.

Lessac further describes this *neurophysical sensing process* as an "organic sight-reading… experiencing the feeling in order to feel the experience" (1997: 206) and suggests that this benefits the actor in developing their own person imagery.

In my view, this has clear resonances with Gendlin's concept of *felt sense* which, when accessed within the Focusing methodology he created, is expressed and captured through an emergent *handle*. Rappaport (2009: 31) explains that in Focusing-oriented art therapy, clients are invited to allow "a word, phrase, image, gesture, or sound" (i.e, a *handle*) to emerge which describes the *felt sense*. Gendlin describes this *handle,* which should

emerge from the *felt sense*, using a suitcase analogy: "As with the handle of a suitcase, which brings with it the whole weight of the suitcase, the whole weight of the *felt sense* is brought forward by that one word or phrase" (Gendlin, 1996 in Rappaport, 2009: 31).

These elements above, in both Lessac's and Gendlin's work, bind these researchers in their commitment to "experiencing the feeling in order to feel the experience" (Lessac, 1997: 206), and the potential of this *felt sense* to forge an emergent, creative pathway for clients into the therapeutic process. Thus, I propose that this idea of a *handle* (which emerges from sensory voicing) may offer an opportunity for metaphoric distance from the trauma content, while still allowing a client to process "persistent maladaptive procedural and emotional memories [which] form the core mechanism that underlies all traumas" (Levine, 2015: 89). These mechanisms are implicit memories which, as discussed in Chapter Five, are experienced as bodily states in the present tense rather than as recollection. They also contribute to the experience of fragmentation and Disturbances in Self-Organisation (DSO) relating to emotional and interpersonal regulation (Teicher & Samson, 2016 in Gerge, 2020: 1).

I am suggesting that, from a trauma-informed drama therapeutic perspective, working with a client's voice to connect to fragments of their implicit, bodily memories may be instilled with a relatively safe metaphoric distance by allowing this work to offer up an emergent *handle* from which to proceed. Furthermore, this *handle* may provide a fruitful starting point for working with language, as it could be developed (over time) into a story or poem or song, which could allow clients to explore their traumatic material without necessarily having to work directly with the content.

It is worth noting that, through this type of engagement, we could potentially incorporate some more of Levine's (2010: 75) nine building blocks for trauma treatment, such as the principles of *providing empowering corrective experiences* [5], *uncoupling* [6], *discharging and redistributing survival energy* [7] and *orienting to 'the here and now'* [9]. Nettifee beautifully expresses the unique power of words when she writes that "being able play with the mercury of language… and feeling its resonance within and without may be at the core of the sensory voice's power to know emotional truth and mediate reality" (2020: 257).

With these building blocks for trauma treatment in mind, I submit that drama therapists are uniquely placed not only to work with the client's own words (in story or poetry, as suggested above), but also to work with even more distance from language by making use of pre-existing texts. These texts could be selected for their ability to relate to or express something relevant to the *handle* that has been discovered through working with the client. This kind of textual work can provide relative safety *'in the here and now'* [9], while still *discharging trapped survival energy* [7] through connection with, and interpretation of, the text. As a drama therapist, this use of pre-existing texts should be facilitated by working with the client to connect their bodily experience to the verbal expression of the text, because, as Linklater (2006: 81) reminds us, "Words have a direct line through the nerve endings of the mouth to the sensory and emotive storehouses in the body."

Furthermore, by vocalising these bodily experiences, we can offer clients whose voices are often silenced a safe opportunity to be heard, thereby *providing an empowering corrective experience* [5], as well as a chance to *uncouple* the client's physiological experiences from the "association of fear and helplessness" [6], as well as their specific trauma story (Levine, 2010: 75). Diane Austin's *free associative singing* also seems to work in this fashion, allowing the client to express and *discharge survival energy* [7] through playing with the "mercury of language" (2020: 257) and emotive sound, as it is felt in the body (Clements-Cortès, 2013: 40-41).

I am advocating for an approach to working with the embodied sensory voice which "imagine[s] a kind of voice and languaging that could be both 'bottom-up' and 'top-down" (Nettifee, 2020: 49). Nettifee describes the potential of this sensory, *felt sense* voice and its value within trauma-informed therapy: "through sensory voicing, we discover and co-create emotional truth through the felt experience of resonance in our own bodies, and between bodies" (2020: 94). She goes on to note that this process "attends to the knowledge that we do not know we know prior to voicing," but become aware of *because* we have verbalised it (Nettifee, 2020: 215).

I agree with Nettifee, that there are instances where *the act of speaking* allows embedded knowledge to emerge into conscious awareness. This is relevant to trauma treatment because, through this process, we recover a greater sense of self and wholeness. However, Nettifee also contends that while this recovery may help traumatised clients identify and

articulate boundaries muddied by faulty *neuroceptive* activity, the sensory voice is also about "saying yes" – *opening up* to more of yourself, your needs, and deeper, more truthful communication in the therapy space (Nettifee, 2020: 258).

Therefore, in the next section, I will look more closely at how to manage this process of sensory voicing in the context of trauma-informed therapy.

7.8 Voicelessness and Titration

As discussed in Chapter Five, clients with a history of trauma have often experienced voicelessness or silencing, and thus may have implicit beliefs about voicing being unsafe or unwelcome in certain spaces and contexts. As such, within the therapy process, working with the embodied experience of voice and spontaneous self-expression should be practiced with these clients "in small, titrated doses… preced[ing] or accompany[ing] work with nervous system dysregulation and traumatic content" (Nettifee, 2020: 281).

I argue that drama therapists working in South Africa must pay heed to this injunction of working in "small, titrated doses," because – as discussed in Chapter 1 of this paper – a client's voice and language may be directly linked to traumatic social history. Implicit beliefs around *being safe to voice* may be especially relevant in postcolonial contexts, where language was routinely weaponised to conquer and oppress people. Ngugi wa Thiong'o reminds us that this has a multi-generational impact, since language is "an image-forming agent in the mind" (1994: 11) which gets passed down from parents to children. Thus, negative emotions such as shame associated with a particular language can infiltrate family and community structures.

The implications of this postcolonial legacy for the therapeutic alliance and efficacy of treatment could be a line of inquiry all on its own, and unfortunately falls beyond the scope of this paper. For now, however, it is important to consider that deep-rooted language trauma may both complicate embodied voice practice within therapy, but also make the need for it more profound in these kinds of contexts. Certainly, we can assume that working gently with the voice – in a slowly and titrated manner – is essential for clients who may be impacted by a traumatic sociolinguistic history.

Titration [4], meanwhile, is one of the final two building blocks which Levine (2010: 75) suggests are important when working with trauma, with the other being *engaging self-regulation to restore 'dynamic equilibrium' and 'relaxed alertness'* [8]. This last one is closely related to the aforementioned *discharge of survival energy* [7] and draws upon a distinction Levine (2010: 93) makes between *dynamic* rather than *static* equilibrium in the nervous system. This building block is intended to develop the experience of safety, as well as the capacity to move towards safety from disequilibrium, as Levine (2010: 94) explains:

> This contributes to the building of a robust resilience… the interoceptive experience of equilibrium, felt in the viscera and in your internal milieu … the background sense that – whatever you are feeling in a given moment – you have a secure home base within your organism.

Titration [4], on the other hand, is deeply ingrained at every stage of treatment and is fundamental to the success of most of the other principles. Levine (2010: 82) suggests, for example, that "pendulation and titration… form a tightly-knit dyad that allows individuals to safely access and integrate… highly energetic states" – and thus, hopefully, process them while minimizing the risks of overwhelm and retraumatisation. *Titration*, then, is the safety net above which many other principles operate. It is the process of gradually engaging with and renegotiating the traumatic experience. Levine uses an analogy to describe this process, explaining that by adding one drop at a time of either lye or hydrochloric acid to the other, their relative corrosiveness, as well as their combined explosiveness, is distilled instead into lifegiving water and table salt (2010: 82). He explains that by titrating trauma engagement "one single drop at a time… with each drop there… [is a] small 'Alka-Seltzer fizzle' but the explosion is avoided" (2010: 82-83).

Thus, working slowly, in a titrated fashion, allows for relative safety in the context of trauma therapy. I have argued that this should be the first, most essential consideration when trying to mitigate the inherent risk of trauma work, while gradually building comfort and the necessary subjective tools to deal with the client's sensations of dis-ease.

7.9 Freeing the Self: Body, Breath and Voice

For therapy to happen, the body needs to feel safe (or as safe as possible), and the breath needs to be free (or as free as possible). As already discussed, this is equally true of

voicework. Lessac emphasises this, noting that "the function of breathing determines the structure of posture at the very same time that the function of posture determines the structure of breathing" (1997: 20).

As a result, most voicework begins by attempting to impact and expand these embodied aspects of the voice practice. Earlier I discussed cognitive, top-down resourcing questions, as well embodied, bottom-up natural sounds, toning and the *familiar event* as oblique ways of shifting the breath and body state. But there are other practical ways of doing this more directly, too. For example, a drama therapist may invite the client to slow their breath or verbalising down by suggesting a limit to the number of words per breath, slowly extending their exhalations by gently increasing the number of words spoken on each out-breath.

Working directly with tension held in the body is also possible, and both Lessac (1997: 53-54) and Fitzmaurice (in Mellian, 2015: 21) include body shaking practices within their voice training. This type of practice loosens the *muscular armour* (Reich in Lowen, 1983: 13) and thus, in relation to trauma, discharges and redistributes the "vast survival energy" which can become trapped in the body due to trauma (Levine, 2010: 75). In Lessac's (1997: 46) *kinesensic training*, shaking is one of several gentle tension-release exercises, which, according to him, have the benefit of being at once relaxing and energising. He notes, "relaxation is a dynamic process" (Lessac, 1997: 46), and this dynamism is clearly useful when working to establish a safe bodily experience for clients at any stage of the trauma-response continuum – from hyperarousal, to dissociation and shutdown.

Fitzmaurice's work with the shaking body is more vigorous and potentially overwhelming, as it places the body in hyper-extended, held postures which encourage involuntary shaking or tremoring (in Mellian, 2015: 21). She asserts that, through her voicework, she has developed ways to encourage these tremors to unlock "spontaneous breathing and to release chronic muscle tension" (Fitzmaurice in Mellian, 2015: 21). She further claims that this effects the autonomic nervous system, triggering a fight or flight response in the body and overriding habitual breathing patterns in favour of a survival breath, which she refers to as a *global breath*, felt throughout the entire body. Later, someone may layer sound on top of this – allowing the *felt sense* of the voice to resonate throughout their whole body –

and, later still, during the "destructuring phase" of this work, they could add a textual layer to the work, as well (Fitzmaurice in Mellian, 2015: 22).

The scope of this paper does not allow for an in-depth look at Fitzmaurice's technique, however, highlighting these prominent features of her voicework shows just how deeply and closely aligned voice theatre training and trauma work may be. Levine (2010) often speaks about a client's body beginning to tremble or shake, and how important this is for the discharge of traumatic energy. He asserts that "with guidance and support, we are capable of emulating animals in learning… to shake and tremble our way back to life" (2010: 37).

I would assert, however, that while the tremoring referred to above seems to tap directly into and release the neurophenomenological trauma response, this type of intense intervention – where the shaking is the point of the work, rather than simply an outcome of it – may not be titrated enough for safe trauma-informed work and could, instead, cause flooding. In contrast, Lessac's (1997: 53) shaking and relaxation techniques may offer titrated entry points into releasing trapped survival energy when working with traumatised clients, by inviting a gentle but energising experience of relaxation.

Lessac (1997: 47) outlines a few other practices to establish a physiological experience of "restful energy." All these interventions – from exploring "facial-vocal yawning" and "muscle yawning," which is "flexible, empowering and qualitative," as opposed to muscle stretching, which is "tense, limited and quantitative"; to exploring the feelings of "muscle floating" in standing or sitting postures and "muscle spreading" while lying down – allow for an embodied experience of energetic rest (Lessac, 1997: 50-59). I would suggest that adding sound to these exercises may deepen the practices by providing more embodied feedback and sensory data for the client to make sense of. These simple and gentle practices link to many of the building blocks outlined by Levine (2010: 74-75), such as *establishing relative safety* and supporting "initial exploration and acceptance of sensation," as well as the established trauma-informed principles of *safety* and *giving voice* to traumatised clients (SAMHSA, 2014: 9).

7.10 Developing Attunement: Restoring Synchrony, Rhythm and Mirroring

As I mentioned in Chapter Three, rhythm and mirroring help to foster attunement. Van der Kolk (2014: 139) insists that experiencing *synchrony*, viz. being in time with others through a shared rhythm, is the opposite of being caught in a trauma response. He cites Polyvagal Theory, which claims that our ventral vagal complex (VVC) evolved so that humans could engage in "complex social life," counteracting our naturally vigilant state so that we may reproduce, nurture our young and seek safety in groups (Van der Kolk, 2014: 138). Van der Kolk (2014: 140) notes that "many traumatised individuals are too hypervigilant to enjoy the ordinary pleasures that life has to offer, while others are too numb to absorb new experience." However, engaging in embodied rhythmic activities and choral sounding, such as singing or chanting, can help them regain a greater degree of *synchrony* with those around them. Van der Kolk (2014: 142-143) contends:

> Breath exercises…chanting… martial arts… drumming and group singing and dancing… rely on interpersonal rhythms, visceral awareness, and vocal and facial communication which help shift people out of fight/flight states, reorganise their perception of danger, and increase their capacity to manage relationships.

From this perspective, Lessac's (1997: 69-70) *consonant orchestra* offers useful exercises and ideas for exploring, creating and sharing rhythm through the embodied voice. As Linklater (2006: 81) tells us, "[w]ords have a direct line through the nerve endings of the mouth to the sensory and emotive storehouses in the body." Therefore, since words are shaped and given form by consonants, then exploring these rhythmic and melodic elements of speech, in unison with a therapist or group, may help to restore the body's experience of *synchrony*. In addition, when working within a group setting, chorus work would by its nature offer a chance to experience rhythmic vocal *synchrony*.

Mirroring is also inherent to the exercises suggested above – and is, furthermore, crucial to our social engagement system. Dan Siegel explains that mirror neurons are important elements of our social engagement system, since they help us to perceive "the intentional, goal-directed actions of others," and thus, prime our "motor system to engage in the same action" (2007 in Werbalowksy, 2019: 25). In other words, our mirror neurons help us learn from each other, as well as how to respond to one another and to danger.

As Van der Kolk (2014: 59 in Werbalowksy, 2019: 25-26) highlights, however, "trauma almost invariably involves not being seen, not being mirrored, and not being taken into account." Mirroring activities in therapy, therefore, serve a repair function, while also activating important social neural pathways.

Vocal psychotherapist Diane Austin (2008b in Clements-Cortès, 2013: 40) uses mirroring in her *vocal holding* technique, as well as repetition (a form of mirroring) during *free associative singing* with clients. During *vocal holding* she may mirror a particular note, while in *free associative singing* she may repeat particular words back to the client, or else engage in doubling, "where the therapist repeats the client's thoughts and feelings in the first person… speak[ing as] the client's inner voice" (Clements-Cortès, 2013: 40). I believe the latter is easy to reimagine in the drama therapy room, even as a purely spoken exercise, while the former could be accomplished by drama therapists by holding and mirroring a particular vowel sound with the client. Newham (1998: 314) suggests that repeating a word or phrase until a rhyme or association emerges offers a playful approach to activities such as song writing, for instance, and I posit the same holds true in the case of drama therapists and the use of pre-existing texts, poems, stories, etc.

As a final point for this section on developing attunement in drama-therapeutic relationships, it is important to highlight Newham's insistence that therapists stop short of *analysing* a client's voice, as this may leave the door open to "constructs which emanate from the Therapeutic Voiceworker's own associations" (1998: 73). In multicultural contexts such as South Africa, this seems particularly pertinent.

From a neurophenomenological perspective, I argue that what must remain of prime importance is the client's *subjective experience* of expression within their own bodies, as well as the associations they make with these vocalisations. As Phil Jones (2007: 113) reminds us, drama therapeutic work with the body is about expanding the *client's experience* of their body, and thus the potential of that body. Therefore, the final part of this discussion section will outline some ways that drama therapists can utilise movement to forge an effective therapeutic alliance with their traumatised clients.

7.11 Emotion, Movement and Role

As I have demonstrated through this paper, trauma has a fragmenting impact – and retraumatisation can easily be experienced when a client is flooded by emotions they cannot effectively process. Beyond this, my examination of the theatre voice practitioners in Chapter Six demonstrated the deep connection between emotion and the voice, making voice work challenging, yet vitally important, for clients with a history of trauma. With these challenges in mind, I propose that combining intentional movement with vocal sounding or speech, can connect clients to their affect in a titrated and contained manner.

Newham (1998: 404) seems to support this when he suggests exploring gestural prompts such as "stroke, shake, nuzzle, prod, ruffle and smear" while speaking. For example, clients could be invited to speak while shaking out a blanket or nuzzling into a warm place on a cold day. Newham claims that this offers an opportunity to "bypass direct engagement with emotion and to transpose affective content onto physical actions" (1998: 405). In light of the challenges I mentioned above, these exercises hold potential for clients in either a shutdown or hyperreactive state, gently connecting them with affect by simply feeling the intentional movement and its impact on their voice.

I propose that the intentional, embodied vocal activities described above could easily be expanded into work with roles – different parts of the self. Different parts of the self may need to relate vocally to one another, while some roles – perhaps characterised by a certain sounds, phrases or vocal energies – may become places of relative safety to retreat into. An example of this may be clients exploring the *felt sense* of various roles by sounding or speaking as various archetypes, as with Newham's Primal Archetypal Regression Cycle, which "allows clients to explore a menagerie of animal movements and sounds" (1998: 165).

While Newham's (1998: 165) Archetype Cycle asks clients to engage in non-verbal sounding, there is also the potential to move towards language and role from this primal use of embodied sound, depending on what is accessible to the client and their therapist. Obviously, not all clients will be comfortable exploring animalistic postures and sounds, thus the therapist could instead use embodied voice to work on the client's role repertoire, or roles metaphorically associated with various animals or archetypes. Clients could be

encouraged to find particular vocal energies of certain roles (for instance, imbued with the imaginative qualities of tiger or a mouse). Here, utilising Landy's (2009) structure of Role, Counterrole and Guide could provide a clear structure to "support… exploration and acceptance of sensation," as well as clear pillars for the traumatised client to *pendulate* between (Levine, 2010: 74). This would allow more challenging roles to be explored in a titrated, embodied vocal manner, with the option of the counterrole or guide always developing alongside any given role exploration.

Additionally, I posit that role work could also be approached vocally through Lessac's (1997: 61) notion of vocal NRG states. This may allow for a fruitful, *felt sense* exploration of the contours of role, counterrole and guide, because, as Lessac proposes, "any human voice can range from light, high, and bright to deep, rich, and dark… express sorrow, anger, melancholy, and joy" (1997: 61-62). Focusing on the vocal NRG state of the body and its vocal expression while investigating different roles may, therefore, allow space for both verbal and non-verbal sounding of the client's experience of inhabiting that role. Newham (1998: 185), meanwhile, is likewise supporting of using emotive energy states to energise, rather than inhibit, the voice. For example, if crying begins to interrupt a story or song, he will invite the client to *use that affect* as part of their vocalisation, rather than composing (restricting) themselves in order to speak.

One final advantage of working with the embodied voice as a drama therapist is that it offers multiple roles for the therapist in the trauma-informed therapy room. I agree with Newham (1998: 426), who claims that the ability to slip between roles of teacher, artist and therapist provides multiple ways to enter the client's embodied experience – no matter how emotionally charged the material may be. Whether it is focusing on technical, acoustic or aesthetic vocal elements, or working cognitively with restorying, these different roles are important tools for the drama therapist – serving to expand the client's bodily experience and adding aesthetic distance at critical emotional moments.

7.12 Summary Conclusion

In this discussion, I have woven together stands from trauma studies, Polyvagal Theory and other neuroscientific insights, Levine's Somatic Experiencing, therapeutic voice workers as well as theatre voice practitioners, to create a tapestry demonstrating the

relevance and importance of embodied voice practice to trauma therapy. I have contended that voice collapses the mind-body distinction at the heart of the standoff between cognitive (top-down) and bodily (bottom-up) therapeutic approaches, and – further to this – that Drama Therapy is ideally placed to work with clients from either orientation.

From this perspective, I asserted that drama therapists are uniquely equipped to develop and work with the spoken voice in the therapy room, and that this is a vital component of trauma treatment (where voicelessness is so often part of the traumatic experience). To consolidate this argument, I offered practical examples from theatre voice methodologies which align with other therapeutic voice practices and trauma treatment interventions to show how, and why, they may be employed in the trauma-informed drama therapy room.

Chapter 8
Conclusion

The intention of this study was to synthesise relevant knowledge from the fields of neuroscience, therapeutic voice work and theatre voice training in relation to trauma treatment and the phenomenological experience of the self. I have discovered numerous important synergies between these disciplines, particularly through the neuroscientific frame of Polyvagal Theory (Porges, 2018). This posits that our ventral vagal, our social engagement system, is an evolutionarily part of being social mammals, and that – through its bidirectional activity – it has the potential to be both shut down by, and counter, the more defensive sympathetic (fight/flight) and dorsal vagal (freeze/faint) systems. These systems are intimately tied up with *neuroception*, a process which occurs below the level of our awareness, by which we are constantly scanning the environment for threat cues (Porges, 2018: 58).

When the body experiences mortal or deep psychological danger, a traumatic event occurs in which neurobiological and experiential details are recorded in implicit memory. When an implicit memory is triggered, through our ever-present *neuroceptive* facility, it is felt as a present-tense experience, rather than a recollection, which thus impacts our ordinary *neuroception* of threat. This indicates that trauma has the potential to reorder our phenomenological experience, even long after the threat-event has occurred, and therefore indelibly impact our experience of ourselves in relation to the world. According to trauma experts such as Levine (2008: 6-8), trauma only occurs when our ability to "respond to a *perceived* threat is in some way overwhelmed." He further notes that our subjective, interpersonal history and neurobiological, genetic constitution have an impact on what it takes to overwhelm our personal systems, and thus engender maladaptive or chronic traumatic responses.

Trauma treatment is thus an attempt to bring the traumatised person into a feeling state of safety in the here and now and become sensitised to faulty *neuroceptive* signals. According to Polyvagal Theory, this occurs by activating and developing the potential of the ventral vagal (social engagement system), since this system has the potential to down-regulate traumatic sympathetic responses (fight/flight) and up-regulate the dorsal vagal's shutdown response. As Porges (2021) notes, the wandering vagus nerve connects the brain

stem, heart, lungs, digestive tract, larynx, pharynx and the striated muscles of the face and head, suggesting that our ability to communicate is linked with our viscera and our interoceptive capacities.

Since our social engagement system is bidirectional, the fact that this nerve links our faculties of expression to our internal environment suggests that our voice is both *affected by* our interoceptive experience of maladaptive or chronic trauma responses, but also has the potential *to impact* this phenomenological experience, too. Porges (2021) explains that breath, particularly the act of extending the exhalation, "acts on the fibres of the ventral vagus nerve ferrying signals between visceral organs and the brainstem." Further to this, he notes that using the voice and face muscles also stimulates these "nerve fibres… and opens the social engagement system" (Porges, 2021: 61).

This suggests that the voice is then central to our social engagement system. And, considering that clients with a history of trauma often seek treatment due to the interpersonal difficulties, which are typically accompanied by a chronically reactive neurobiology, the voice seems like a crucial part of the puzzle for trauma treatment. In support of this, the centrality of the voice to Gendlin's (in Rappaport, 2009: 26-27) discovery of the importance of *felt sense* for therapeutic success suggests that we have the potential to use our voices to both reach inward to sense, interoceptively, the reality of our internal worlds; and to reach outward, to express this inner reality and connect our experiences to others.

Furthermore, it is interesting to note that Nettifee (2020: 64), in her neurophenomenological "sensory theory of voicing," highlights that the part of the brain that correlates with the "voice as sense," also correlates with an area "that is deeply impacted by unresolved trauma." Nettifee (2020: 64) writes that:

> The insular cortex is the part of what Cozolino (2014) called the social brain… Basically, the insula is the part of our brain that lights up when someone asks us "how are you doing?" and we check in with ourselves in order to assess, gain some self-awareness, and honestly respond (Craig, 2009; Damasio, 2000)…It is broadly implicated in social emotional processing, both our own emotions and those of others, coordinating our experience of empathy…[and] involved with how we articulate feelings.

From the above, it is clear that developing the potential of our client's sensory speaking voice is neurophenomenologically relevant in assisting them work through unresolved trauma. Developing the potential of the voice can allow these clients greater access to their bodily *felt sense*, as well as their ability to communicate with others more authentically. In other words, sensory voicework can expand a client's experience of themselves and their interpersonal capacities – both vitally important aspects of trauma treatment. Importantly, this notion of sensory voicing can be explored through both bottom-up and top-down therapeutic approaches by working with clients to develop their capacity to connect their voices to their bodily *felt sense*.

With this practical end in mind, I explored how therapeutic voice workers, as well as theatre voice trainers, already have a variety of practices to nurture the sensory voice, an intrinsic human aptitude which gets "crippled… by the conditioning of a warped society" (Brook in Berry, 1973: 1) and unresolved trauma. Voice therapists and voice teachers alike link the voice to our psychophysical experience of self, insisting that our voices cannot be separated from our whole selves. As Cecily Berry notes, developing one's voice is also about training oneself to "respond instinctively to any situation…lead[ing] you to know something more of yourself" (Berry, 1973: 11). From a drama therapeutic perspective, I hope that I have shown that we have a wealth of voice practice to draw upon which is highly relevant to trauma treatment. This is particularly true since we are uniquely placed, as psychotherapists, to work with spoken language (alongside other vocal expressions), and to connect these expressions to embodied, affective *felt sense*.

In conclusion, while I endeavoured to add depth and breadth to the discussion of each of the fields relevant to this research paper, many of the individual strands could be investigations in their own right. For example, it would be useful to conduct a comparative study of top-down versus bottom-up approaches to trauma treatment to find places of synergy and divergence. This could show how these perspectives could feed, rather than detract, from each other – a consideration particularly relevant from the phenomenological perspective on trauma treatment, which seeks to collapse the mind-body distinction. Another area I only touched upon was the relevance of voice and language to trauma work within postcolonial contexts, another area which could be a standalone topic of research.

Finally, within the discipline of drama therapy, there is scope for a more detailed look at the work of particular voice practitioners, the practices they have developed, and how these can be utilised in the therapy room. Further to that, from a theoretical perspective, the utility of the voice as a tool within the drama therapeutic process could benefit from being analysed from an empirical perspective, and individual vocal processes could be delineated more thoroughly, rather than simply being taken for granted that they all form part of embodiment. While some may argue that the voice simply *is* a part of embodied practice, which already receives a fair amount of attention in drama therapy literature, this does not acknowledge that the voice is also a well-established specialisation in theatre work, with a separate (and related) history of inquiry and praxis. By taking a holistic and integrated view of the voice, practitioner-researchers may be able to offer new and vital insights to the discussion on trauma treatment and embodiment in drama therapy.

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