How can we evaluate the subjective and objective aspects of effectiveness in the therapeutic alliance?
Fundamental limitations to current scientific writing about therapeutic processes

Dr Elya Steinberg

In this article, I propose that there are fundamental limitations to current scientific mainstream methods of writing about therapeutic processes that in fact hinder our ability to both write about our therapeutic process and to learn from other clinicians' and researchers' writings.

In my view, these limitations may partially be compensated for by allowing creative writing, poetry and other forms of art to be the major part of a case study, where the objective measures must be integrated into the subjective frame of writing. Creative writing conveys its truth by acknowledging the intense subjective complexity originating from sensations and emotions accompanying the actual objective memory. Therefore, describing only the client and therapist's narrative itself or material that is only observable by external senses, heavily compromises the quality of the therapeutic process.

By therapeutic process, I am including all interactions that a person has concerning any aspects of their health, whether with a medical doctor, therapist, psychotherapist, body-psychotherapist, psychologist, physiotherapist etc. In this article, for simplicity I will call all those from whom the person seeks support the **Therapist** and the seeker a **Client** rather than a patient. *In some other places, when I think that the important aspect of the experience is simply human and is not dependent in a particular function or the differentiation between therapist and client I use* ***Person*** *or* ***Participants****.*

These fundamental limitations *to current scientific mainstream methods of writing about therapeutic processes* prevent full understanding of the quality of the therapeutic encounter and create a situation whereby the writing is potentially disloyal to the personal truth of the participants. For example, the measure of well-being, pleasant/ unpleasant or pain/ no-pain are clearly an individual perception and sensation. Those reflexive individual perceptions of well-being, pleasure and pain are complex multidimensional experiences that have defied our understanding for centuries. The reflexive awareness of those qualities of human consciousness, i.e. sensations, emotions and feelings, originate from the internal visceral aspects of the body (Damasio, 1999b, 2013). Still most case studies do not reflect on those important internal embodied experiences of the self of any of the two participants. At the end of the day, the efficacy of therapeutic intervention can be judged mainly by the clients only and deeply embedded in their inner motivation and their perception of themselves in their internal world, which is based on the maps of our visceral function as well as the external world.
I will discuss these limitations from the point of view of Protagora's (fl 5th C BCE) dictum "Of all things the measure is man" . . . I will do so without getting into dialectic argument, which could be essential in cases of Cognitive dissonance and Equilibrium of Destructiveness. I will discuss these latter ones elsewhere.

However, when we look at phenomena from the point of view "Of all things the measure is man" (DK8ob1), we must look at the 'dual-aspect monism' (Solms & Turnbul 2005) viewpoint. The monism claims that body and mind are one rather than accepting Descartes' dualistic point of view that body and mind are made of different fundamental basic components. In addition, this one 'thing' can be perceived by two valid ways. Those two ways to perceive this one 'thing', objectively and subjectively are both measured by man, and I will elaborate on the question of how can we interweave those two valid ways of perception by man while reporting on the therapeutic encounter. I suggest that this way would be more accurate and could possibly support not just more fruitful communication between scientists and clinicians but also help stepping forward answering Searle's question (Searle 1995a p62) *'How does the brain get over the hump from electro-chemistry to feeling?'* A mixed method study of writing that interweaves objective and subjective phenomena may potentially offer more information necessary to investigate therapeutic processes from a 'dual-aspect monism' (Solms & Turnbul, 2005) perspective that claims the body and mind are one, and we have two ways to perceive it: objectively and subjectively.

The immense magnitude of information brings us to a crucial limitation—the need to choose from an infinite number of details that create the web of phenomena, which details do we discuss in a particular article? We usually strive to choose the details that express and present to us an important quality of the therapeutic process. One fractal picture from multifractal scaling information in motion or a particular emergent property. The process of choosing the particular facts that we intend to present in an article is always biased by many factors, for example: the researcher and the editor's personal life and capacity to perceive phenomena; the wider social construct and ecological, economic and political situations. These biases compromise even further the writer's capacity to present the quality of the therapeutic encounter.

An example is presented by the enormous gap between conventional medicine and Chinese medicine. Both disciplines are successful systematic methods used to assess the health of a person *and to suggest a course of improving the health of the client*. However, each discipline chooses to consider a different group of facts and details from the infinite number available. Hence, they have no common language for communication. Sadly, this gap exists not just between Eastern and Western philosophy, but also between different Western disciplines such as medicine and psychology and even between different methods of psychotherapy such as cognitive-behaviour, psychoanalysis and body psychotherapy. One of the major challenges I observe arising from this lack of common language is a disrespect and a form of competition between the disciplines and therapists, each one claiming that it holds the absolute truth and the best way to attain human health. It has become a hidden power game rather than a collective effort to best serve the client's needs.

With these basic thoughts about our human incapacity to be objective, I let go of the idea of trying to be 'objective'. I believe that there is a danger inherent in the attempt to be objective about the therapeutic encounter that is often the result of coincidental historic circumstances, or an arbitrary difference of opinion at the time of creation that does not provide the dynamic stability required for the processes and issues present in the therapeutic encounter. Many of the conclusions that claim to be objective tend to become dogmatic ideas or authoritarian political identities that are no longer examined by the therapist, as though they were mathematical axioms not capable of being excluded. It is par for the course that differences of opinion and questions about objectivity and subjectivity will always exist, and there is a question as to whether it is truly possible to utilise them without coercion and without even the slightest hint of

violence. With that, it is well to recognize that expression of the experience is born of the desire to know the truth, and the intention is to protect the public from moral negligence. Hence, in this article I allow the flow of information to emerge from me in a process of creative writing, trusting the process rather than any premeditative preconception of how it is supposed to be written.

There is more than one way to approach gaps in communication when we present the quality of the therapeutic encounter. Here I would like to explore ways to bridge **scientific thinking** and **human experience**. Scientific classical thinking is the thought process that is traditionally supposed to help us find objective truth. However, scientific thinking brings dualistic thinking into life in the form of an absolute 'truth' or absolute 'non-truth'. *It has a very little space for the spectrum of differences and relativity.*

Life is composed of infinite subjective and objective experiences. These infinite possibilities comprise personal truth. Originally, science evolved to explain human experience rather than the other way around. I think this leads to confusion. Many people look to science to validate their experience. However, their experience does not need external scientific validation to present accurately personal truth. It is for science to ask the questions how and why a particular truth is experienced as it is. *It may be a truth that science cannot explain all subjective human experience, however it does not give it the moral right to belittle experience that it not yet explained.*

This means that in this article, first and most importantly, it is subjective human experience that will be presented as subjective personal truth, using creative writing in which I embed objective scientific findings that can explain some of the infinite possibilities of human reality. Some scientists may dismiss the creative writing as "almost literature" as did a reviewer of one of my articles. They may dismiss it, rather than looking at the interesting phenomena of how and why the particular flow of interactions gave rise to poetic writing and in which way this particular way of writing makes the reader feel surrounded by the flow of interaction inside the web of phenomena and connected to the real experience, rather than disengaged from it.

In psychotherapy and some other disciplines, creative writing can bridge some of these gaps in communication. **Poetry and creative writing** may emerge from within the therapeutic process as phenomena in the client, the therapist, the supervisor or all three people and serve as a: "coherent narrative that does not betray personal truth". They emanate from the "embodiment of psychic matter" of material such as indescribable, unbearable pain, enormous pleasure or praise for virtue. Subjective experiences that the human mind cannot comprehend completely by using the scientific vocabulary, which essentially lacks an appropriate narrative. Creative writing serves as part of a necessary process enabling us to assimilate the experiences. It works especially well where the incomprehensible traumatic experience feels compromised by any form of intellectual analysis. Creative writing conveys the truth by acknowledging the intense subjective complexity originating from sensations and emotions accompanying the actual objective memory. Therefore, describing only the client and therapist's narrative itself or material that is only observable by external senses, compromises the quality of the therapeutic process.

Yet, I am left with the most malignant questions that I struggle with. Therapists - whether medical doctors, psychotherapists, body psychotherapists, psychologists, physiotherapists etc. - read and write 'case studies' to be able to learn from each other and from other therapists' experiences as "the greatest obstacle to discovery is not ignorance, it is the illusion of knowledge" (Boorstein, 1984). How can we be more effective if we will not do so?

In the field of 'manmade' trauma, we oftentimes write about people who are highly traumatized, most of whom have been betrayed by the people who they should naturally be able to trust the most. People who have risen from the graveyards of an abusive childhood and neglected life, when they were treated as objects to satisfy the desires of others. Regardless, they have managed to build new lives as positive contributors to society, and possess special qualities that arise in a person when they need to survive resistance and oppression. They develop their strength against all odds and despite the conditions. They are resilient. They survive in conditions and environments that we, as therapists, may not be able to survive with our sanity intact. These people hold within themselves screams of pain juxtaposed with roars of victory.

When I/we write about them in an objective manner, reducing their full manifestation as human beings, as subjects, do we not re-traumatize them? Re-enact their original trauma in a malignant parallel process? Treat them as objects again? Do I/we reduce, intellectualize and rationalize their pain and agony, because as therapists I/we are not able to deal with their live full embodied pain? Do these clients and patients feel seen by me/us? Do I/we really see them and support them by telling their 'objective' story rather than their subjective

story, to help them, and maybe also ourselves and future generations? or do I/we betray them somehow inside of that energetic quantum field by making them an object rather than a subject?

This leads me to what I see as the Fundamental limitations to current scientific mainstream methods of writing about therapeutic processes

(1) The first limitation is that in many of the current mainstream methods of writing about therapeutic processes, most of the processes encountered are measured by outcomes and not by process. This happens regardless of the fact that the quality of the outcome stems from the process. A dynamic process embedded in a complex dynamic matrix. Allan N. Schore (2002) writes, "The essential task of the first year of human life is the creation of a secure attachment bond of emotional communication between the infant and the primary caregiver. To enter into this communication, the mother must be psychobiologically attuned to the dynamic crescendos and decrescendos of the infant's bodily based internal states of autonomic arousal" (pg. 9). Therapists, similar to the mother, wishing to offer a secure attachment bond in the therapeutic encounter also "must be psychobiologically attuned to the dynamic crescendos and decrescendos of the" client's "bodily based internal states of autonomic arousal". This a dynamic process that needs to be reflected upon with language that echoes on the deeply subjective dynamic crescendos and decrescendos of bodily based internal states of autonomic arousal.

(2) The second limitation, which we can see as one of the extensions of the first one, **is that the quality of the therapeutic process can't be** simply **defined** as an absolute measure. The existence of the quality of therapeutic encounter is dependent on multiple factors. For instance, Norcross suggests common factors that work in psychotherapy such as: alliance between therapist and client, cohesion in group therapy, empathy, listening, collecting client feedback, goal consensus, collaboration, positive regard, positive support and more. He also suggests factors that do not work in psychotherapy, such as some styles of confrontations, frequent interpretations, negative processes, assumptions, therapist's centricity and early ruptures in the relationship. However, around 40% of the factors are unexplained therapeutic variance. Those, in my opinion, cannot be defined as they stem from the quality of the dynamic harmonious flow of interaction inside the web of phenomena. When you have 'quality' in the room, you recognise when it is absent from the room. It is measured by subjective human experience and defined by the felt sense and capacity to appreciate 'quality'. We can't analyse this quality using rational systems of order. We can express the impact of the quality on the participants using creative writing or art, but we cannot describe it with scientific vocabulary. We can no more catch the flow of interaction than we can catch water in our hands. We need to relate the dynamic patterns of flow of the interaction, to the quality of the motion of a movie, rather than to separate pictures.

(3) To explain this limitation, I will borrow a concept that originates in quantum physics: the uncertainty principle of Heisenberg. **The uncertainty principle of Heisenberg** determines that we cannot be certain about the accurate value of some pairs of variables, even not with the most accurate instruments. The best way to describe it is by using the following equations.

In classical mathematic we say that 5X4-4X5=0. Meaning that the variables A and B are exchangeable. AXB –BXA=0. However, according to the uncertainty principle of Heisenberg, some pairs of variables that describe the way these elementary particles behave are not exchangeable, meaning: AXB-BXA≠0

One of these pairs is **momentum** and **location.** This means that if you know everything about the momentum of an elementary particle, then you cannot know its accurate location. If you know all about the location of an elementary particle, you do not know its accurate momentum. Momentum is a term that defines the direction and intensity of the movement of a particle.

Now I will use the principle as a metaphor to explain my biodynamic perspective of therapeutic encounter.

If I take a camera and take a picture of a moment in therapeutic encounter, it will give me an accurate location of the client and therapist at that moment. The picture provides me with a static location. I can gather maximum data on that phenomenological moment and ideally include everything that is captured in that moment, subjectively and objectively, by both participants and the observer of the moment. I could possibly write a paper on just that particular moment. In addition, we will gain information that enables us to diagnose the client with one of the known diagnostic methods such as DSM or ICD, which methodologically are based on sum of static pictures of the client.

However, informative as that moment can be, it will provide no information about the momentum of the client and therapist.

I could take a video camera and record a movie. This movie might provide me with a full account of the dynamic flow of interaction, the ways of change and directions that appear in the client and therapist. Ideally, I could capture the objective and subjective dynamic complex phenomena. A particular location will become a vague phenomenon when I have clear information about the dynamic process of the flow of changes and interaction: How are the client and therapist moving nearer each other or further apart? What are the parallel changes in heart rate and heart rate variability of the client and therapist and how does this relate to the subject of conversation or silence in the room? The Biodynamic diagnostic system is essentially based on that information, information about the momentum that in the participants and in-between the participants and in-between the participants and surroundings.

A therapeutic process has clusters of information that are organized in reiterative and partially overlapping patterns and present the idea of a fractal experience. The fractal experience is crucial in the understanding of the 'location' of the participants in the therapeutic process. However, a fractal is still a static picture that give rise to the exhibition of multifractal scaling information in motion and unpredictable dynamic emergent properties. That dynamic motion would be crucial in the understanding of the 'momentum' of the participants in the therapeutic process.

This kind of information cannot be expressed using words that describe the static picture. Nevertheless, it can be partially expressed by the subjective flow of creative writing.

(4) The forth is that not all processes are alike and the **individual** match between **Client - Method- Process -Therapist** is crucial for a successful process that will result in a successful outcome. For example, in medicine, the process includes far more than the particular prescribed medication. The interweaved processes will determine for example whether this particular client will use the prescribed medication, follow what the doctor thinks is the 'correct procedure' or take the advice given. Some of the most popular research methods that scientific writings are based on the Randomized Control Study (RCT) protocol. In RCT, the researchers intentionally exclude the individual match; therefore, they can never capture some of the crucial essence of the therapeutic encounter.

(5) The fifth limitation stems from the fact that the client and the therapist are part of the vast web of phenomena of the therapeutic process, which is an open, dynamic, complex system. This process is taking place beyond verbal content and observable measures. Traditionally, there are two main sources of relatively neglected information that needs to be taken into consideration methodologically: (5a) non-verbal information and (5b) non-observable information. Various aspects of non-verbal information are already considered by some researchers in developmental psychology such as Edward Tronick and Colwyn Travarthen, but not enough has taken place within the therapeutic encounter.

(5a) Non-verbal information can be observed by watching systematically. For example, *we can watch*: micro-movement, macro-movement, patterns of breathing, motility and posture, dynamic changes in the colour and moisture of the skin, the music (i.e. the harmonious and disharmonious, the tune, tone of voice, accentuation, the pitch, the intensity etc.), the 'dance' of the participants in relationship to each other and gestures accompanying the lyrics (the words).

(5b) Non-observable information contains vast reservoirs of informative aspects. I will mention three of them here:

(5b*i*) First are all the internal milieu, composed of a variety sensations, emotions, thoughts, psycho-neuro-immuno-endocrinological changes and the interlinked dynamics of the way they emerge. This can be partially observed during a session just by the trained participant who is able to use their own body as a measure in the resonance between the participants, for example via touch.

(5b*ii*) The second aspect is historical (personal history and general history), social, ethnic, political and ecological that create a combination of dynamic realities. Prior learning experiences give rise to the particular perception in context and time of the therapeutic encounter, which includes the haptic communication.

(5b*iii*) Third and no less important, it is hardly discussed in the literature: What are the people in the room choosing not to say? What are their reasons for conscious withholding? Furthermore, what happens to the participants in-between the sessions? And how can we evaluate the subjective and objective aspects of effectiveness in the therapeutic alliance?

Evaluating the subjective and objective aspects of effectiveness in the therapeutic alliance

In 2007, I was asked by the director of Confer to present and demonstrate how Porges' Polyvagal theory is relevant for a clinical setting. I began that presentation by quoting the Israeli writer Yochi Brandes (Kings III, 2008): "Stories are a more efficient weapon than swords. The swords

can only kill those who stand before them, in contrast to that, the stories determine who will live and who will die in later generations too." That sentence followed a presentation of the story of one and a half hours of work I did with a person who had not moved for over two hours before I entered the room. It was a process of supporting a survivor of extreme abuse and torture (SRA; Survivor of Ritual Abuse) who suffered from Dissociative Identity Disorder (DID) in freeing himself from a voodoo death state.

I presented that case a few times afterwards and called it "Voodoo Death, Dissociative Identity Disorder (DID) and Biodynamic Psychotherapy". I unfolded the multi -layered phenomenology of the complexity of the subjective human experience of Biodynamic Body Psychotherapist at a micro-analytical level.

I employed analysis from a variety of viewpoints originating from different theories and my thoughts were woven into the story as it unfolded. I followed the story from the perspectives of ontological and epistemological research as participatory (therapist), drawing together the professionalism with the direct authentic and Hursselic personal level.
I reflected here not only on viewing external conditions - as done by the naturalists - but also on viewing the internal conditions and thoughts that cannot easily be measured, and by the inclusion of another spectator.

My intention was to describe the complex processes of co-adaptation and co-regulation. I am doubtful as to whether I can properly describe and deal with such complex processes using only one sense, and whether they can be represented correctly by offering up a long catalogue of objective facts. For this reason, I broadened the viewpoint as far as possible to create a holistic web that includes body and soul as one, the story, Biodynamic Psychology, attachment theory, trauma work, and neuroscience.

I still remember how the sense of real terror that enveloped the client spilled out into the huge conference room as I invited them to feel the story. At that time, it was not just a sterile case study about trauma; at that time, it was about a palpable person who had experienced trauma who then entered the room for the audience to have the direct experience and process with them. When Porges read the 40-page story he said an essential sentence to me—"I visceralised the patient." Porges understood the accuracy that we gain when we describe the subjective qualitative aspects of the clinical material. Those subjective qualitative are body based and represent the internal map of the functions of the viscera. It gives rise to our consciousness. (Damasio, 1999, 2013; Solms & Turnbull, 2005). This background state of consciousness represents the most basic embodiment of the SELF. It is full of meaning and feelings. It does not just represent the self it also provides the reflexive content that tell you your situation in your life. I believe that we need a new scientific language that can enable us to feel the story and fully understand the client by re-experiencing, on a mini-scale, what the client and therapist really felt subjectively.

I will share a few paragraphs from that story with you that has been published in the 2015 Biodynamic body-psychotherapy conference book, to show how poetic writing enabled me to dive into the personal subjective qualitative aspects of the clinical material.

To enable the capture of the subjective qualitative aspects of the clinical material of this case, all was data, all mattered, beginning with the name.

For example, I chose to call it "**Voodoo Death, Dissociative Identity Disorder (DID) and Biodynamic Psychotherapy"** rather than any of the other, more sterile options such as:

Catalepsy, DID and Biodynamic Psychotherapy
Catalepsy: a general term for an immobile position which is constantly maintained

Catatonic rigidity, DID and Biodynamic Psychotherapy
Catatonic rigidity: the voluntary assumption of a rigid posture held against all efforts at initiating movement

Catatonic posturing, DID and Biodynamic Psychotherapy
Catatonic posturing: the voluntary assumption of an inappropriate or bizarre posture, generally maintained for a long period of time

'Death feigning behaviour', DID and Biodynamic Psychotherapy - the less dramatic name used by physiologists for the voodoo death state

I chose that particular name because it allows the real experience of the client to enter the conference auditorium. This is not my story; this was the client's life story and it was what the client believed they had experienced. I felt that I had no right to reduce it.

The story continues with one of my first observations when I entered the room and described the external phenomena I saw and my internal experience:

"An Asian man sat, with a pale chiselled profile and dark hair. … Although his body was present in the room I could feel the forceful absence of his social presence. I could see no trace of social behaviour or social communication in him. Clearly, he shared no intention, no feeling in our company".

At that moment, I experienced my thoughts as "distant", which was already an embodiment of the dissociative experience I felt while I resonated with him.
"I wondered, on one hand, what had caused this person to come to a halt, and on the other hand, what was the unique and selective adaptation process, conscious and unconscious, which had enabled him to choose a path of therapy and thus hope."

I started to remember Porges' presentation at a trauma conference in Boston, saw the slides of that presentation in my mind. This was followed by the realization that I was using my own favorite defense mechanisms of intellectualization and rationalization so as not to feel him, as it was almost too much to bear. I regulated myself emotionally and physiologically, returned to feeling the mute person and continued to absorb and sense the experience of being with them (the client and two psychoanalysts) in the room, seeing and asking myself:

"…Could the stone mask testify to the fact that he had already seen the felled head of Medusa and there was no somersault of the reaction?"

I felt in my body and soul that moment when his despair and my despair became one. Acknowledging this despair enabled me to move forwards, and I felt that a new sensation regarding the musicality of the attachment process entered my consciousness.

"I had the feeling that some synchronized sounds were present in the intersubjective space much like a voice calling out in the desert allowing the last bastions of hope for the lost."

When I concluded that I had seen all there was to see from the outside and gone through all my thinking and theory, I allowed myself to feel the full vegetative identification with him using mirror neurones and adaptive oscillation in the quantum field of the therapeutic space, to enable the full embodied somatic resonance and the sensations of counter-transference.

"I was fully aware that the longer I stood in the room, the greater my feeling of a nameless sense of dread, which filled me from head to toe, as if the frozen intensity of the man in front of me was absorbed in my own body. My mouth was dry."

As I had no idea "what to do?" I started more consciously using 'Dual Awareness' in addition to the vegetative identification and analysis as a parallel process.

"I sat and listened with my entire body, the 'material me' (Sherrington, 1900). My ears seemed to have blocked themselves. This silence was the sound of terror, and I was listening to it and myself while all my other senses became more acute as the sensations were seemingly amplified through my body… A whispering fear rose inside me, engulfing me with a feeling of desperate solitude making the distance between myself and the others feel endless and unbridgeable"

A memory of a sentence "fear cuts deeper than swords" sprang in me. I felt the impact of his horror in me "**the impact of which no amount of training could prepare me for."**

The experience of feeling like an invisible sword was cutting into my own flesh led me to internal analysis in the 'present moment', connecting to my own trauma when I felt similar feelings and sensations in myself in my past. These led me to take a course of action of attuned intervention. That action was based on my Biodynamic working hypothesis about the essential need for self-regulation and my internal analysis gave me the entry point to understanding that I needed to find a way to touch and that touch might reconnect him to life.

"I needed to reach out to the man. I needed to touch him and find a simultaneously (Byers, 1976, p60) shared rhythmic foundation (Mary Catherine, 1979) which would enable turn taking.."

I was starting to negotiate a lifeline.

"In a gentle voice that matched the volume, rhythm and prosody of the Clinical director and Therapist's voices, I asked his permission. Did he blink his eyelids? A quick glance in the Therapist's direction confirmed he had."

I again went through an internal process in negotiating the lifeline.

"I quickly calculated the risks. At this moment, anything was possible, and I had to prepare for any eventuality, from gentle consolation to violent attack. For these, not only was there need for a victim in the cult, but also a priest. The emaciated bony hand of this cult survivor sitting opposite me might be contaminated with blood."

I had to regulate my fear as this was not counter -transference; this was a real risk.

Externally, I took action as I had to get consent and permission to touch his hand but also to

"How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?"

protect myself.

Then, "I picked up a shiny, light coloured cushion and placed it on my lap. I spoke forgotten words, which suddenly came forth from the painful place inside me."

We negotiated the touch, then I gently placed his hand on the pillow and stroked his hand softly at a very particular rhythm and intensity, listening careful to the appearance of peristalsis. To feel real hope, we needed to feel life inside of us. Psycho-peristalsis could enable the internal transition of movement from paralysis to action.

"I returned to silence, listening with my fingers, and then I heard the voice I had longed to hear emanating from his intestine. A gentle rumble, like the hesitant purr of a cat bathing in the sun's rays, was very clear. Peristalsis, referred to in biodynamic psychology as psycho-peristalsis. My ears, accustomed to hearing these voices, sharpened, alerted. These involuntary gut responses, the sounds of which were increasing, sounded to my ears like the roar of an experienced surfer who forces himself to conquer a stormy wave and whose triumphant bellow echoes from its crest."

The intervention with appropriate touch came from my deep embodied resonance with him, and it looked like a good idea as the emerging data from scientific literature shows that appropriate touch starts a cascade effect throughout the systems of the body. Touch influences higher cognitive centres, enhancing body awareness and embodiment through proprioception (Berlucchi & Aglioti, 2010; Craig 2002, 2009). Gentle and pleasant touch acts via C-tactile afferents to influence affective and reward centres in the brain, which most likely activates the placebo effect (e.g. Benedetti, et al., 2011; Dunbar, 2010,), but which more importantly activates C-tactile afferent fibres in the skin that stimulate the client's insula and begin the release of oxytocin. This activates the insula and enables some sense of body ownership to reappear, due to the combination of oxytocin and the activation of the myelinated parasympathetic branch of the autonomic nervous system. Therapeutic touch is also likely to promote the release of endogenous opiates (endorphins) as well as oxytocin and arginine vasopressin, which has analgesic properties to help dealing with the emotional pain and influences social bonding (Dunbar, 2010; Sauro & Greenberg 2005).

After the lifeline was established, the client moved and stood up on his feet. It felt like a triumph of the sympathetic branch of the autonomic nervous system; the client came out of his voodoo death state.

This session unfolded as a combination of aspects from Biodynamic Massage in Vegetotherapy. Vegetotherapy is a method that began with Wilhelm Reich and which was further developed by Ola Rackner and Gerda Boyesen, the goal of vegetotherapy is to enable the activation of the identity of the self by being open to the infinite possibilities of the subjective experience. It is one of the major methods by which Biodynamic psychotherapists work, and which starts through embodied listening to the internal and external communicative musicality, including the vegetative internal signals (vegetative meaning autonomic nervous system signals).

This sentence from Sherlock Holmes in *The Sign of the Four* (1890) sprang up in my mind: "How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?"

Elya Steinberg, MD, is Co-Director of the Centre for Biodynamic Psychotherapy (London School of Biodynamic Psychotherapy). She is a medical doctor and biodynamic psychotherapist who integrates body-psychotherapy, Gerda Boyesen methods and bioenergy with psychological trauma work, martial arts, conventional allopathic medicine and complementary medicine. She interweaves alternative and conventional approaches to allow a person to grow as a holistic complex and improve their well-being. In partnership with Gerhard Payrhuber she facilitates the group 'Attending to the Silence' for second and third generation Shoah survivors, perpetrators and bystanders.

elya.steinberg@virgin.net; www.biodynamic-bodypsychotherapy.co.uk

References on page 63