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From the influence of traumas to therapeutic letting go:
the contribution of hypnosis and EMDR

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Abstract

The development of new psychotherapies such as EMDR has led to numerous fresh approaches to both the treatment of traumas and also to our understanding of underlying psychopathology. A unified view appears to be slowly emerging in an attempt to corroborate clinical practice with neurobiological data. Accordingly, this article will seek to demonstrate links between different psychotherapies by attempting to highlight what appears to be an invariant among these approaches, namely “letting go”. This concept refers to a psycho-physical dynamic that combines psychological dissociation and re-association, as well as the body’s vagotonic mechanisms. Following an explanation of this process, it will be demonstrated here how letting go can manifest itself physiologically and how it is significant in the study of traumas.

Key words : Trauma, letting go, EMDR, hypnosis, Somatic experiencing.

Introduction

Following the first controlled study by Shapiro (1989), the development of EMDR psychotherapy has led to numerous fresh approaches to both the treatment of traumas and also to our understanding of psychopathology (Masson, Bernoussi, Cozette-Mience, & Thomas, 2013). These contributions are integrative in that they lead researchers and practitioners to attempt a difficult synthesis between traditionally distinct and indeed opposite approaches such as psychoanalysis, cognitive-behavioural therapies, hypnosis or the systemic approach.

EMDR also encourages taking into account the most recent neuroanatomical and physiological data (Shapiro, 2002). Consequently the discussion that follows will juxtapose EMDR, hypnosis and other therapies by highlighting what appears to be an invariant within these psychotherapies, namely “letting go” as it is referred to by hypnotherapists (Godin, 1992; Roustang, 2008). Once this somatopsychic process has been explained, we will show both how it can manifest itself physiologically and what it can contribute to the clinical study of traumas.

Letting go during hypnosis and psychotherapy

Within the framework of research on the therapeutic use of hypnosis on alcohol dependent patients (Masson, 2002), we have revealed a psycho-physical process specific to hypnotherapy which we have called “letting go” in reference to Godin’s work (1992). Letting go is, for this author, a hypnotic process during which the hypnotised person temporarily forgets the reality of the outside world and is absorbed by their imagination and the therapists’ suggestions.

Letting go is viewed as the patient engaging more or less actively with their psychological, emotional and somatic experience, whilst remaining an observer of this experience with no

control issue. This seems to be similar to psychological dissociation as defined by hypnotherapists (Michaux, 2006). By letting go the person under hypnosis is absorbed by their imagination, emotions, thoughts, feelings, whilst thinking they cannot truly control what arises from within themselves. Accordingly Roustang (2008) makes an important point: from what we are dissociating ourselves during the process of dissociation? The view of this author is that dissociation manifests itself through a temporary abandonment of normal psychological behaviour, the waking state, and through the automatic intrusion of behaviours, emotions and thoughts of which the patient is not consciously aware. Janet (1889) saw this as the expression of the subconscious, or more precisely of “covert ego states”. Following on from this, Roustang considers the symptom as a form of dissociation in which the patient is not in real contact with himself anymore but rather is subjected to what emerges from within unexpectedly, and is often considered as pathological. It should be pointed out that it is the cultural context that determines whether what emerges through dissociation is of a pathological or a normal order. While a qualified specialist in Western culture (a psychiatrist, for example) may interpret the emergence of hallucinations as psychotic behaviour, a shaman may view it rather as contact with the spirit world. Roustang is clear, and this seems to be the important point here, that what emerges through dissociation during a hypnotic state, whether it be the symptom itself or any other behaviour, emotion, etc., has already been learned by the subject. He backs up this point with a quote from Erickson (1999): “the hypnotised patient has lost all contact with his immediate surroundings and tends to substitute remembered images for real objects, behaviour which is typical of the hypnotic state” (p. 494-495).

To further make the point here, we consider that the distinctiveness of hypnotherapy (using hypnosis in a therapeutic setting) is that it offers a framework in which the patient is asked to wait, to do nothing, and allow dissociation to manifest itself (Masson, 2008; Masson,

Bernoussi, & Chambon, 2012). Confidence in the hypnosis process is based on the need to refer to that which is indescribable. In doing nothing, in allowing things to manifest (that is not to say letting things happen), we are more or less tacitly invoking a third party, a new intentionality that is beyond us and that makes us rely on something unknown from within (the unconscious, internal resources, learning, the body, information processing systems, etc.) or something external (skill on the part of the therapist, the influence of the therapeutic setting, suggestions, etc.). Confidence, which is partly behind any placebo effect, draws its energy from an “other” region of the self that was previously more or less inaccessible, and where our power to act can be freely deployed. Billeter (2006) also supports this by suggesting that the reliance on the emptying of the mind, on non-intentionality, constitutes a *sine qua non* for change since it entails reliance on metonymic subjects such as the unconscious. In this description of letting go, both the dissociative process and the ability to surrender to the psycho-somato-emotional experience can be seen. Elsewhere Varela, Thompson & Rosch (1993) point out that letting go involves a natural tendency of the mind to become an observer. Let us be clear that dissociation appears more descriptive than real since it is essentially re-association that takes place. By surrendering oneself to the experience and with the help of the therapist whose role is that of accommodating guide, the patient agrees to confront whatever comes from within his/her self and thus to re-associate with this part of the self that was previously so distant.

Observing what emerges during different therapeutic approaches, letting go appears to be a process which can often be witnessed and could thus be a therapeutic common therapeutic factor in numerous psychotherapies (Masson, 2001). During analytical treatment letting go is expressed as “un-speech” (Roustang, 1996), when the person analysing makes a slip of the tongue for example, or when a hypnoid state keeps the patient in a state of daydream.

Reichian analysis (Guasch, 1998), in releasing muscular spasticity and through emotional bodywork, seeks to promote taking the patient's history into account and release body tension. In Gestalt Therapy (Perls, Hefferline, & Goodman, 1994), which favours addressing present and intimate concerns over an intellectual analysis, both an emotional release and some spontaneity are expected. In Primal Therapy (Janov, 1970, 1997) the therapist has the patient engaging directly with suffering as a means to eradicate the "unreal self", involving an abrupt disintegration of the defensive system in order to reflect the deepest unsatisfied needs. Lastly, Barabasz (2014) describes an identical process in Ego State Therapy where hypnosis facilitates, through the therapist's support, the expression of the repressed emotions. This release therapy (Christensen, Barabasz & Barabasz, 2013) revivifies the past traumatic experience to reduce the psychological tension which was not expressed during or following the trauma.

It is widely agreed that EMDR psychotherapy is an integral part of cognitive-behavioural therapies. This can be explained by the underlying theoretical framework which deals with the information processing mechanism (Shapiro, 2002) and which therefore holds that the EMDR protocol intrinsically stimulates information processing mechanisms in order to enable desensitisation and treatment of any information deemed "dysfunctional". In light of the above, EMDR can also be considered as a humanist approach, closely related to hypnosis, to the somatic experiencing developed by Levine (2004), and also to Ogden & Fisher's (2014) sensorimotor therapy. Indeed the therapist's role is to foster a self-regulation process that will resolve the patient's issues in a naturalistic way. The adjective "naturalistic" follows from Erickson who claimed that it is essential to guide the patient through the physiological and psychological process, the starting point being the patient's initial "state" during the first referral, and to make best use of their own natural resources and development. We take the

view that this self-regulation can be achieved only by letting-go, and is a manifestation of the activation of the parasympathetic nervous system.

Neurobiological aspect of traumatisation

The traumatic experience seems to be an attempt at integration, an attempt to link with a part of the self within a body which by definition is difficult, if not impossible, to assimilate. The traumatic memory is characterised by a hypermnesia of the emotional aspects as well as a difficulty to remember the details of the traumatic event. This is due to the fact that a strong activation of the amygdala (seat of fear) inhibits the hippocampus responsible for long term memorisation and contextualisation of memories. Studies (Carlier, 2014) show that in the framework of PTSD, a hyperactivation of the amygdala (emotional hypermnesia, flashback), a decrease of the hippocampus' size as well as a hypoactivation of the medial prefrontal cortex and the anterior cingulate cortex, stopping any possibility of regulation of the amygdala, are observed on the brain. The emotional regulation is thus disturbed and the representation of the self altered.

Three systems usually work together to preserve the patient's integrity. The cognitive aspect is mainly managed by the brain's cortex, the emotional aspect by the limbic system and the sensorimotor aspect by the reptilian brain. When the person feels safe the prefrontal cortex usually 'controls' the other two systems, which facilitates emotional regulation. If the emotion is strong however, particularly during traumatic events where fear overcomes the patient's coping capacity, the two other systems take over. Thus, the impact of trauma can be seen in induced neurovegetative dysfunctioning (Rothschild, 2008). An important role is attributed to the limbic system which has an "evaluative fonction". The term

“neuroconception” coined by Porges (2004) supports this. He defines neuroconception as a subconscious system made of certain neuronal sub systems that evaluates the patient’s experience and differentiates between what is a reassuring, dangerous, or even a deadly environment. The thalamus, the conduit for sensory information, informs the amygdala of a dangerous situation, which then in turn activates the hypothalamus. The hypothalamus is closely linked to the vegetative nervous system which is made up mainly of the sympathetic branch (activated by exertion or due to stress) and the parasympathetic branch which plays a prominent role in resting the body and relaxation. Any stressful situation is generally characterised by major activity of the sympathetic nervous system and the hypothalamic-pituitary-adrenal axis (Rossi, 1994).

The difficulty, or even inability to cope, is well known in aetiology which describes three types of primary responses towards life threatening danger: fight, flight, and the freeze reflex. When humans are confronted with stressors that exceed their coping capacity (coping defect) this very freeze reflex can be engaged automatically (Levine, 2004). Connections can surely be made with the notion of “inhibition of action” proposed by Laborit (1986). The flight and fight responses come from the sympathetic system whereas the freeze reflex seems to be linked to the simultaneous activation of both the orthosympathetic and the parasympathetic system. The freeze reflex seems to result from unusual instability in the vegetative nervous system. If fight or flight is not possible, or the threat goes beyond the body’s resilient capacity, the freeze reflex is engaged. This block produces symptoms whose function is to channel the “unreleased somatopsychic strains” of the nervous system as much as possible. The symptoms thus reflect saturated neurological activation.

Vagotonic response and assimilation of the traumatic experience

The contribution of neuroscience has allowed us to broaden our understanding of what is happening in the brain within the framework of psycho-traumatology. Levine (2004) believes that every traumatic event simultaneously creates a resilient response in the body, a response that is usually weak at first. He sees in the nervous system an adaptive capacity that is able to restore equilibrium, an auto-regulatory function which can be modified in individuals and that brings about neurological over-activation, and is a sign of approaching traumatic symptomatology. The therapeutic approach must aim to promote a dialogue between the traumatic experience (hyper-activation of the body) and the adaptive response (homeostatic regulation) in order to achieve a progressive solution. Actual data shows the existence of an autonomous resilient nervous system as suggested by Cyrulnik (2006).

Research on EMDR shows that the traumatic information processing mechanism slowly engages as soon as the patient is in a vagotonic state (Sack, 2005; Barrowcliff, Gray, Freeman, & Mac Culloch, 2004; Eloffson, Von Scheele, Theorell, & Sondergaard, 2008). The parasympathetic nervous system can spontaneously activate a “natural” resolution of psychological traumas (Roques, 2009 ; Schore, 1994). It seems that whilst in the vagotonic state, the amygdala enables the neocortical inclusion of previous dysfunctional information in the long term memory (Roques, 2009). Clinically, the patient feels a certain relaxation, even drowsiness (parasympathetic activation) and also a dissociation of a hypnotic kind. A part of the patient’s self remains due to the therapist (active social engagement) whilst another part is linked to the past trauma. As in hypnotherapy, the aim is to bring the patient to engage the trauma whilst grounding it in the here and now. In order to be therapeutic, this dissociation must respect the window of tolerance in order to not overcome the patient’s coping capacity. Too much sympathetic activation prevents any treatment, as does too little. Let us be clear

that current data tends to show that high level parasympathetic stimulation allows this window of tolerance to remain intact (Dellucci, 2011). According to our current knowledge, there is a correlation between this variation of the activation and the patient's attachment. Work done by Schore (1994) and Perry, Pollard, Blakley & Vigilante (1995) shows the essential role played by a healthy attachment in allowing an increased capacity to deal with stressors. A reassuring attachment acts as a safety net for the child and makes exploration of the environment and the ability to face painful situations easier (Laborit, 1986). It would appear from this data that the nature of the patient's attachment is linked to their tolerance for sympathetic excitement, just as the nature of the relationship with the patient influences this tolerance and therefore their information processing mechanisms. This seems to confirm the work of Porges (2004) which highlights the importance of social engagement (relationship to the other through eye contact, facial expression, sensoriality, etc.) in restricting neurological over-excitability, social engagement which is apparently underpinned by the visceral branch of the parasympathetic system. Porges (1994) views the parasympathetic nervous system as a regulator of reactivity and vulnerability with regard to stress: "Stress and homeostasis are interdependent. Homeostasis reflects internal visceral regulation, whereas stress is the subjection of internal needs in response to external needs. When the parasympathetic system does not respond perfectly to internal needs (depression of the nervous system), the body undergoes stress. Measuring parasympathetic energy can determine stress and vulnerability to it" (p. 497). Excitation of the orthosympathetic system is therefore as essential as vagotonic under-activation in explaining reactivity to stressors. Thus parasympathetic activity, particularly the ventral branch, is parallel to the body's auto-regulation mechanisms.

Porges' (2004) polyvagal theory completes our understanding of the syndromes linked to stress and the body's response to it. The autonomous nervous system is made of three

reciprocal systems, that is, self-balancing systems: 1. the sympathetic nervous system allows improvement of the body's relationship to its environment through a general mobilising of protection and/or defence mechanisms; 2. the parasympathetic nervous system is more focused on the body's restoration and homeostasis processes. Most of the innervation of this branch of the autonomous nervous system can be broken down into two sub-systems: 2a. the dorsal vagal system, the most primitive part, which is an oxygen conservation system which can stop, freezing the body when the trauma is very severe; 2b. the ventral vagal system, phylogenetically more recent, which maintains social engagement through, amongst other things, facial expression. Porges' theory proposes a model of hierarchical responses in which the most sophisticated responses linked to the most developed nervous system are used as a priority: 1. social engagement (ventral vagal system), 2. fight or flight via the sympathetic nervous system, or lastly 3. freeze reflex through the dorsal vagal system.

Therefore in light of the above, EMDR and hypnosis, which embody the very essence of psychotherapy, activate the ventral vagal system which plays a part in social engagement and reducing sympathetic excitation through a reassuring relationship with the other. Stimulation (eye movement, tapping, etc.) and inducing hypnosis can enable depression of the vagal tone and thus a counterbalancing of the sympathetic system. The data currently show that such stimulation causes a decrease in heart rate and the skin's conductance, a slight decrease in oxygen consumption, a slight increase in carbon monoxide release, an increase in respiratory rate and skin temperature, and improved cardiac activity (Tarquinio, 2009). Also Pagani et al. (2012) have used EEG to show a major change in activation of the limbic regions to the cortical area following EMDR therapy. Pagani, Hogberg, Fernandez, & Siracusano (2013) have confirmed these results in a study carried out using functional magnetic resonance imaging (fMRI). Moreover, the activation of the parasympathetic system seems to activate

the medial prefrontal cortex, which is the brain's structure involved in the conscience of self and altered in case of PTSD (Carlier, 2014).

These physiological changes signify parasympathetic activity identical to that which occurs during paradoxical sleep, confirming the possible hypothesis of the mnemonic role of REM sleep. Furthermore Roques (2009) posits that during EMDR eye movements enable cholinergic release and thereby contribute to an increase in associative mnemonic links. Finally, alternating bilateral stimulation counterbalances the deactivation of both the left orbitofrontal cortex and Broca's area that results from high stress levels (Rauch et al., 1996), preventing any verbal elaboration and physiological well-being. The hypothesis put forward here aims therefore to restore balance within the two main branches of the autonomous nervous system, ortho and parasympathetic. These mechanisms are likely to be found in the practice of cardiac coherence which addresses the essential question of the integration and regulation capacities of the patient. Coherence can be seen as a homeostatic state in which the patient is stable, a state not found in patients who have multiple traumas or hyperactivity caused by stressful developmental environments. Coherence refers to the vagotonic reflex and letting go in the sense that the patients are integrated, unified and calm enough to observe their own psychological, emotional, physical manifestations. Coherence can be measured through evaluation of the respiratory sinus arrhythmia (Porges, 1994). Deep breathing or meditation techniques enable this peaceful state. Breathing in slightly increases heart rate while breathing out, due to the vagal influence on the heart, and lowers heart rate. Heart Rate Variability (HRV) corresponds to the difference in these two rates during the two stages of breathing. This difference allows us to determine the vagal tone of the patient. Porges thus

demonstrates that this tends to increase during a child's development, along with an improvement in discovery and self-regulation behaviour.

The theory of mnesic consolidation can also allow us to think of the possible therapeutic effect of EMDR, release therapies or more generally of the approaches aiming to reactivate psychotraumatic memories (Tarquinio, 2014). Any memory becomes prone to degradation when it is recalled. Recalling a memory makes it labile and can thus encourage a biological re-encoding (expressed as a protein production) of this information as another form.

That way, during the letting go phase, the confrontation with the traumatic memory within a secure therapeutic frame creates an opportunity to change it in such a way that it can be seen under a different angle. Keeping the working memory busy, with eye movement for example, with a distraction task or hypnotic suggestions, prevents any possibility to re-encode the memory in its initial dysfunctional form. Saturating the patient's attention while placing them in a secure situation facilitates a re-encoding possibly more adapted.

Letting go to re-associate

It follows from the formulations put forward here that the patient engaging in trauma psychotherapy must adopt a specific mindset ("participatory observation", Masson, 2002) in which they must be "attentive and relaxed" with regards to what emerges during therapy. This is the letting go that involves dissociation, re-association and vagotony. When faced with the unbearable, the unthinkable, or an inability to react, a traumatised person always tries to put out of their mind anything that is painful for them. Getting close to the "trauma vortex" (Levine, 2004) creates a fear which potentiates the inhibition of action and further perpetuates the syndrome. Patients beginning to emerge from this frozen state tend to be unstable (strong abreactions, massive anxieties, acting out, etc.), a tendency which will accentuate the fear of apprehending the painful memory and reactivating once more the fight,

flight or freeze reflex, preventing any natural and adaptive resolution of the trauma. The therapeutic aim then is to enable patients, within a reassuring framework, to accept this new encounter with themselves. In EMDR this encounter is enabled by both protocol and in particular by alternating bilateral stimulation (eye movement, etc.). In hypnotherapy therapeutic dissociation allows this same assimilation.

This approach can also be found in psychotherapies such as Somatic Experiencing or Sensori-Motor Therapy in which the patient is called upon to track somatic manifestations. Since the impact of trauma has in a sense fragmented somatopsychic integrity, altering any physical consciousness, it is necessary to confront the trauma through the body, physical sensations that could reflect a disturbing memory in order to guide us towards instinctive resources. The practice of SE or SMT relies on the “felt sense” put forward by Gendlin (2006). This involves experiencing all the sensations, and is similar in approach to that of mindfulness (Segal, Williams, & Teasdale, 2006). Working with sensations guides the patient towards a gradual reduction of immobilizing reactions. As Levine states (2004) “re-enactment represents an attempt of the body to finish a natural cycle of activation and deactivation which goes along with the response to threat on the wild” (p. 191). Focusing attention enables both a decrease in orthosympathetic activity and a process of salutary release. This same dynamic can be found in hypnotherapy, as in the work of Rossi (2005, 2008) for example. He sees each symptom as a signal conducive to creativity. According to Rossi (2002), “with our psychobiological approach, we are closely looking for the signal-symptom, and then facilitate the implementation of creative processes of information transduction able to convert the negative aspects of the symptoms into therapeutic reactions” (p. 135). For Rossi, each symptom, each emotional manifestation, each aspect of the patient’s experience is considered as a signal enabling access to other aspects of the patient’s

experience; this also affects the SIBAM (acronym proposed by Levine to designate the five experiential elements of the patient on which it is possible to work during therapy: sensation, image, behaviour, affect, meaning) by linking and integrating emotions, meanings, sensations and behaviours. This perspective is essential in understanding Roustang (2004) for whom the symptom is always isolated from the individual since it is an isolated manifestation of all the other human aspects. The suffering patient is stuck in a state of anxiety, subject to recollections for example. The patient can also be stricken by obsessions or psychogenic somatic pain. By calling on the patient to focus attention on a dysphoric emotion or sensation, other experiential aspects such as other thoughts, images or emotions can then be accessed. We are thus enabling a heuristic elaboration conducive to changes. Rossi speaks of “information transduction” to describe this natural psychodynamic creativity which makes use of the interplay between implicit (unconscious) and explicit (conscious) processes. It is not a matter of controlling the symptom that has manifested itself but rather using it as an opportunity to explore and bring to light new possibilities for centripetal communication (between soma and the psyche) and centrifugal communication (between the patient and the other) to promote well being. This is how the notion of information transduction should be understood. Rossi’s psychotherapeutic sessions generally follow the four-stage creative cycle outlined by Wallas (1926): preparation, incubation, illumination, and verification. The first stage, preparation, involves bodily experience during which the patient goes through all their experiences (“felt sense”, Gendlin, 2006). At this stage physiological reactions can be observed (vibrations, trembling, perspiration, increased heart rate, emotions, etc.) and are usually signs of orthosympathetic activity. The second stage, incubation, is an internal exploration (letting go, dissociation, re association, free association, reframing, etc.). This involves using extended consciousness to look for something new whilst noting any changes in the surroundings and also within the patient in order to enable an adaptive reaction (Rossi,

2005). It would appear that access to the senses is only possible secondarily; the inhibition of Broca's area in preventing any verbalization is probably a contributory factor. It is during this psycho-physical work that information transduction seems to be most intense and therapeutic. This is generally based on vagotonic relaxation which fosters a reconnection of dysfunctional information to the older information stored in the long term memory. The penultimate stage focuses more on a natural resolution. As pointed out by Levine (2004): "once you realise it, the internal sensations nearly always change. These changes usually allow a better flow of energy and vitality" (p. 100). After some time of experiencing fully what is happening within the body, the patient starts to perceive a positive outcome: pleasant bodily sensations, emergence of new thoughts and/or positive memories, creative imagination. This results from work done implicitly in the previous stage. New possibilities come to light. Finally the last stage, verification, allows associations between past and present to be made. Both symbolization and verbalisation further enhance the effects of what has happened during the work with the therapist. This is a time for the patient to integrate and consolidate the whole experience.

Conclusion

Following an experiential analysis of diverse psychotherapies, based in particular on the clinical practice of EMDR and hypnotherapy, the issue of handling trauma calls upon practitioners and researchers to make links between the different theoretical schools of thought. The letting go process, viewed as a psycho-physical dynamic combining dissociation, re-association and vagotony, seems to address this reflective and practical concern in the difficult treatment of severe and mild traumas. The advantages are twofold: it allows links to be made between clinical practice and neurobiology, and also appears to be an integrative concept in that it is a feature in diverse psychotherapies that aim to resolve

traumas. We now need to better our understanding of this process and develop various techniques that can incorporate it appropriately in different clinical settings. If the patient is to be rescued from the edge of the traumatic abyss, the therapist must be fully involved in order to provide sufficient support and thus become a “resilient guardian”.

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