

Energy Psychology, Polyvagal Theory, and the Treatment of Trauma

I had been using and teaching energy psychology approaches (AKA “tapping”) as a trauma treatment for years (Schwarz, 2002). For many of us in the trauma world, the focus of treatment had been shifting away from conscious thoughts and cognitions. The final piece of a puzzle appeared with the development of Polyvagal Theory (Porges, 2011). It provided a theory and a biological basis for what was clinically obvious: The sense of danger that overwhelms people with PTSD wells up from below neo-cortex! It is not verbal! Cognitions do not create the perception of danger. The body-based perceptions of danger create cognitions!

Polyvagal Theory also provided a solid theoretical and biological framework for the rapid and unusual results of “tapping”. Polyvagal Theory helps to explain the rapid down regulation of overwhelming affect both from the intrapersonal perspective and from the interpersonal perspective. When we integrate Polyvagal Theory with Interpersonal Neurobiology (Siegel, 2012), instead of Energy Psychology (EP) being framed as a “strange alternative treatment”, we can now view EP as an exposure based body-oriented psychotherapy that restores ventral vagal regulation of the flow of information and energy in the mind-body system. In the rest of this chapter, I will delineate this process.

Energy psychology (EP) approaches can be considered to be a family of focused and brief approaches to releasing stuck energy and/or unprocessed

information in the mind-body system that usually is the result of unresolved small “t” or big “T” trauma. “Within an EP framework, emotional and physical issues are seen, and treated, as bio-energetic patterns within a mind-body-energy system. The mind and body are thought to be interwoven and interactive within this mind-body-energy system, which involves complex communication involving neurobiological processes, innate electrophysiology, psychoneuroimmunology (PNI), consciousness, and cognitive-behavioral-emotional patterns.”

(<http://energypsych.org/?AboutEPv2>)

The two most well known approaches are Emotional Freedom Techniques (EFT) and Thought Field Therapy (TFT). Both of these treatments are “tapping” approaches. I will be focusing on EFT and TFT in this chapter bringing a polyvagal perspective to the ways they work.

Relative to most other forms of treatment, these “tapping” approaches are very similar. At the most basic level, they involve having the client focus on a “target” thought, memory, sensation or feeling that is associated with distress. At the same time the client taps on selected acupuncture points. The client reports changes in his or her ongoing experience including the diminution of distress. The process is repeated until the distress levels are eliminated or vastly reduced. It is very important to note that in TFT and in non-hybrid forms of EFT, there is little to no attempt to actively and consciously change the cognitions and meaning making activity of the client with regard to what happened in the memory. There is no attempt to help the client to see that they are now safe or to provide an alternative explanation or interpretation for what happened. There is

one important exception to these comments. In EFT the client is asked at the beginning of each round of treatment to tap on a meridian point and use the “set up” phrase that includes the statement, “ Even though _____ (the client inserts the aversive aspect of the memory being targeted.” I deeply and completely accept myself. This type of statement can be regarded as facilitating self-compassion. It is important to note that there is no attempt to change any other attribution. So for instance, if a soldier froze during battle, there is no attempt to explain the freeze response or how normal it can be. To the casual observer not much else is appears to be happening except focusing and tapping, the entire procedure is decidedly strange and one could easily think that these approaches should not be effective. A more sophisticated observer might notice that these tapping approaches follow a very similar pattern to EMDR (Shapiro, 2001), but instead of using bilateral stimulation the client taps on acupuncture points (Schwarz, 2012).

Research shows these approaches are remarkably fast and effective and, meet the criteria of evidenced based approaches, especially for PTSD and trauma (Feinstein, 2010, 2012). While that is not the focus of this chapter, let me summarize the published research findings:

- 43 randomized controlled trials
- 39 Outcome studies
- 98% of these 82 studies have found statistically significant positive outcomes

- 3 meta-analyses demonstrating large effect sizes (Clond, 2016, Nelms & Castel, 2016, Nelms, 2017). 1 meta-anlalysis showing moderate effect size (Gilomen & Lee, 2015).
- 2 randomized control trials with positive effects on genetic or biologic markers (Church, Yount & Brooks, 2012; Church, Yount, Rachlin, Fox,& Nelms 2016). Details can be found at <http://energypsych.org/research>

Energy Psychology based treatment (tapping) has been around since the mid 80's and early 90s. The problem has been explaining the mechanisms that underlie the effectiveness of this approach. Clients would come for treatment with horrible traumatic events and in as little as 30-50 minutes the traumatic event would cease to be a problem for the patient. Clinicians and researchers wanted to know how this could possibly happen.

The early interpretation was to frame things in an energetic perspective. Combining ideas from physics and Chinese medicine, thoughts were to be considered a coherent field of energy and information or a "thought field" (Callahan, 1985). So if I said, "think about the event where you got stabbed", the patient would tune into that "thought field". The concept was that what are normally called "psychological symptoms", such as intense negative affect that disrupts functioning, come from a disruption or "perturbation of the "thought field". Tapping on meridian points somehow removed this disruption. The speed of effectiveness was so fast because the treatment was actually engaging the energy system of the body. This was why the term "Energy Psychology" was coined.

In actuality, there was much more to this energetic point of view. For instance, one explanation for the speed of symptom reduction was that the energy system of the body (i.e. the meridians) was a faster system than the electrochemical system in neuronal transmission. There is some evidence for this. One study using fMRI data found that the meridian system was as much as 10 times faster than the nervous system (Cho, 1998). More recently, there is evidence for the actual structures of the meridian system called the primo vascular system and that this system is a transport of bio-photons (Stefanov et al, 2013). While energy psychology approaches were incredibly effective treatments, there was a need for explanatory mechanisms for how it could dissolve the trauma response out of memories of horrible events so rapidly and completely.

Over the last 15 years a number of non-energetic mechanisms for the effectiveness of EP have been suggested. Feinstein (2012) has argued eloquently that there is evidence that acupoint stimulation down regulates the amygdala (Dhond, Kettner & Napadow, 2007; Fang et al., 2009; Hui et al., 2005) thereby reducing the alarm reaction to memories of traumatic events. There is also evidence that tapping appears to normalize brain wave patterns as measured by EEG (Diepold & Goldstein, 2009; Lambrou, Pratt, & Chevalier, 2003). There has been increasing discussion that tapping protocols resolve traumatic memories by activating therapeutic memory reconsolidation (Feinstein, 2015; Schwarz, 2014).

All of these ideas may explain part of EP's effectiveness. But what has been missing is that Energy Psychology may be deeply mediated by the vagal system and superbly effective at creating vagal conditions that allow for natural healing to occur.

Initial Evidence that EP may be mediated by the vagal system.

The phenomenology of energy psychology treatment from a vagal perspective:

The major job of the vagal system in mammals and human's is to ask the following question: "Am I safe?" If the vagal system says, "I'm not safe," the sympathetic fight/flight/freeze system is engaged. If asked to describe fight/flight using a car metaphor, most people they think of "putting your foot on the gas". But that's not actually what happens. The correct car metaphor equivalent is not "foot on the gas," but "foot off the brake."

The ventral vagal system keeps a brake on the heart, called the vagal braking system because the heart left to its own devices would race. So the ventral vagal system brings the message, "you're safe... you don't need to go super fast." If you're healthy and you're feeling safe, the brake is on and the heart beats somewhere around 72 beats per minute (BPM), in a normal, arrhythmic manner. If the vagal system perceives danger, the foot comes off the brake, the heart starts to race, you go into fight or flight or freeze, until you believe you're not in danger anymore ... then foot comes back on the brake and a calming process ensues.

One of the most important applications of Polyvagal Theory to trauma treatment is the emphasis on treating the body-based, non-verbal, non-cognitive bottom-up signals of danger in response to, or in conjunction with, the activation of a memory of a past traumatic event. Most treatment modalities will ask the client to give a SUDs rating from 0-10 measuring how distressed they are about the memory. Ideally, the goal is to get to zero. But what does zero really mean?

The complete resolution of a traumatic event can best be defined in the following manner: In the presence of a memory of a previously traumatic event, the body reacts as if the client is safe and secure and the mind remains calm. The obvious question is, “Does the mind drive the body or does the body drive the mind?” The answer is both. However, Polyvagal Theory suggests that the body to mind side of the road has 4 lanes of traffic compared to only 1 lane on the mind to body side. It is a lot easier to have a quiet and calm mind when the body says, “you are safe and secure”. This is exactly what EP appears to do – help restore the body to a state of “I am safe”.

Returning to the process of treating a traumatic event, if before treatment you were at an “8” when thinking about some specific event, and then after a few rounds of a procedure you are at a “0”, what is your experience that would allow you to say, “I am at a 0.”? It would be the cessation of all of the body based information welling up - communicating to you that you are in danger; danger of being hurt; and/or danger of loss (of attachment). Instead, the body would be communicating the neuroception of safety and connectedness at least in part

through ventral vagal activation. Yes, there would also be thoughts and verbal labels for feelings. But, if you pay close attention these are epi-phenomena, all driven by body-based, non-verbal data. Through a polyvagal perspective, the story arises from the autonomic state first and then the top down cognitions and narrative helps to solidify the experiential state.

Vagal mediation of EP fits the phenomenology of clients receiving EP. After a few rounds of tapping the client is asked to think of the original target memory that was so upsetting. The client frequently develops a quizzical facial expression and will say something like: “This is strange. I can think of the event, but it doesn’t bother me anymore - It’s just kind of gone.” Further interviewing usually reveals that the client actually remembers the event, but no longer feels body based feelings of danger. In other words, there is a cessation of sub-cortical messages of danger and instead there is an autonomic message of safety. Sympathetic or dorsal vagal reactivity has been replaced by ventral vagal regulation. What is interesting is that clients are deeply surprised by this turn of events. They have come to expect these “non-rational” responses of their bodies. Through a polyvagal lens, these are seen as adaptive survival responses driven by autonomic neuroception of danger or life threat. Conscious effort and/or conscious attempts to change their thinking could not be successful until the autonomic state changed to support the new experience.

Clients also frequently report self-generated cognitive shifts about the meaning of the traumatic events. One could suggest that it is the change in meaning that is creating the new sense of safety. While this is conceivable, it is

more likely the other way around. Because the mind is no longer hijacked by intense affect dysregulation, the information can be processed in a new way. Unlike CBT (cognitive behavioral therapy), EP approaches do not attempt to consciously change cognitions of clients. The narrative shifts as the autonomic state shifts and as the neuroception becomes one of safety. Once clients report these changes, it is good clinical practice to stabilize these new beliefs and to connect them with other aspects of a client's social system and self-narrative (aka identity) . In other words, we want to place energy psychology treatment within the tri-phasic model of trauma treatment (Schwarz, 2002). Tapping approaches themselves can be used as part of phase 1 or stabilization. However, they are generally used as a non-abreactive approach to treating memories of trauma (Phase2). Phase 3 focuses on helping clients reconnect with social systems. For years, I have suggested that it also includes helping clients reconnect to a more resourceful identity.

Our consciousness seems to us to be a unitary seamless event. However it is actually made up of many component parts shifting and changing all of the time. This includes mental, physical and relational aspects. To paraphrase Dan Siegel (2012) the mind regulates the flow of all of these component parts. The problem with traumatic events is that the memories of them disrupt and distort the healthy flow of information and energy within our bodies and minds and between us and our social networks. Right in the middle of the problem of "flow" is the loss of ventral vagal control, aka affect dysregulation, aka a sense of being in danger. Porges (2011) describes how dorsal vagal activation impairs social

bonding at the precise time when social bonding would have the possibility of helping the individual calm down.

By the time a client gets to our offices they have built up patterns of social interaction and self narrative that are based on the existence of and expectation of the neuroception of danger. It simply is how things are for them. To make matters worse, other people come to expect the same thing. This actually helps to rigidify the problem. For instance, a rape victim Glenda is anxious around men. So she avoids men and/or treats them as objects of danger. Men may respond to her anxiety and associated behaviors and have less than optimal responses to her.

Once we have helped the client completely resolve a traumatic event during a session, we want to spread the neuroception of safety back into the system. This can be done in many different ways. In the case of Glenda, it might be to simply visualize meeting a man at a social event and discover that there is no sense of danger. She could imagine how that feels in her body and mind. We could then have a conversation with her about how that makes her feel about herself. This example is decidedly simple to make the point. In fact there are many approaches that can be used to “spread the perceived safety” into the client’s social system and image of himself or herself.

Theoretical and experimental evidence that support vagal mediation of EP results

- some initial findings: An important application of Polyvagal Theory to trauma treatment is the finding that trauma disrupts the vagal braking system (Porges,

2011). Second, insufficient vagal braking capacities are highly correlated with affect dysregulation. Third, a good way to measure the health of the vagal system is heart rate variability (HRV). HRV is a measure of the variation of heart rate between inhalation and exhalation. A heart that beats at exactly the same rate is unhealthy. In general, the more variability, the better this vagal braking system is working.

Fourth, a series of articles were reported on using Thought Field Therapy for traumatic events that used HRV as one of the main measures (Callahan, 2001a; Callahan 2001b.) The researchers measured people's HRV. Then they had them focus on traumatic memories, tap on meridian points, get their SUDs (subjective units of distress) scores down to zero or near zero, and then re-measure HRV. HRV would substantially improve. Callahan (2001) suggested that HRV was usually very stable and not easy to influence and that the improvement in HRV was a general measure of the power of TFT. At the time, Callahan did not appear to understand HRV as a measure of the health of vagal influence over the heart or that a flexible vagal brake was a proxy for the ability to regulate affect. Callahan used HRV as an objective measure to demonstrate the effectiveness of TFT but was unable to connect the dots about the role of TFT's ability to treat trauma through vagal mediation. My suggestion is that the findings reported by Callahan (2001) are initial objective evidence of energy psychology's ability to rapidly treat trauma through use of the ventral vagal system. These findings are deeply in line with the phenomenology of patients' experiences. Further research is needed to confirm them.

An important question from a physiological point of view is: how does tapping on acupuncture points actually lead to restoring ventral vagal control? The bottom line is we do not know at this time. It is of interest to note that 6 of 8 points used in the EFT protocol are on the face and head at points that lie on or very near cranial nerves that connect to the vagal nerve. One theory is that tapping on these points creates a piezoelectric effect that can be transmitted to the facial nerves and then the vagal nerve. Again more research is needed.

EP is superbly effective at creating vagal conditions that allow for natural healing to occur.

One of the important aspects of Polyvagal Theory is the interpersonal regulation of comfort and safety. In the context of trauma and trauma treatment, the in-the-moment relationship with significant others or therapists may lead to an escalation or a de-escalation of aversive emotions for both the traumatized person and the other. The internal sense of danger is partially mediated by the interpersonal context as two nervous systems attune. In trauma treatment, the hope is that the stability and calmness of the nervous system of the therapist will calm the nervous system of the client; that the ventral vagal state of the therapist will transmit cues of safety to the client who will begin to regulate into a ventral vagal state of their own. One of the concerns of trauma treatment is that therapists listen to, and come into emotional contact with, painful to horrific events that may challenge their own capacities for regulation. If therapists

become too activated, they communicate or reinforce the sense of danger to the client. This process is depicted in figure 1

-Insert figure 1 here

In the “Tell the Story Technique” of EFT the client is asked to tell the story of a specific and time-limited traumatic event. One important difference of this approach compared to almost all other trauma treatment approaches is that as soon as the client begins to feel any intensity of emotion or “emotional crescendo”, the therapist guides the client through the tapping procedure to reduce the affect to near zero before the client continues the story. From a polyvagal perspective, when the degree of neural challenge becomes too great, the client is guided to bring more ventral vagal energy to their system and come back into a state of safety before returning to work with the traumatic material.

At each stopping point, the client may tap on several different components of this section of the traumatic event. For instance, if at a stopping point the client’s father is yelling shame infused invectives at him and the SUDS level is a 8, the client might be asked to focus on the yelling and the words and do the tapping. The SUDs might come down to a 5. This is not below a 2 so,

movement forward in time would not occur. There is not enough ventral vagal capacity yet to safely continue. The therapist might ask what was making it a 5 at that point, and the client says, “The look in his eyes was full of disgust”. That would be tapped on. The client would not move forward to the next part of the scene until he was at or near zero. Typically, even a short traumatic event of a couple of minutes has 3-5 emotional crescendos that are coupled with a reduction of ventral vagal management and increased sympathetic or dorsal vagal activation. Helping a client get to a “zero” or “near zero” at each stopping point along the way of describing a traumatic event helps to create the necessary ventral vagal state inside the client that mediates healing and restoration.

But, the person who has the traumatic event is not the only player in the equation. Generally, the EFT practitioner is also tapping on his or her own meridian points, ostensibly to lead the client in the procedure. However, there is a huge bonus. The practitioner is connecting with his or her own system, actively engaging ventral vagal energy creating the capacity to stay very calm. The client and the therapist share a deep sense of body-based calm and safety as they go through the entire event in a step-by-step fashion.

Over the years of training therapists in EP or other non-abreactive treatment approaches, I have become aware that a significant number of therapists are fearful of asking people to work on a specific traumatic event. They are afraid that the client will become dysregulated. And unless they know EP or another non-abreactive approach, they may have good reason to be fearful. But, this very fear may be part of the problem. The therapist may

communicate danger to the client through subtle facial gestures, postural shifts, or changes in tone of voice. In other words, the autonomic nervous system of the therapist communicates to the autonomic nervous system of the client that the client may be in danger. Meanwhile, the autonomic nervous system of the client is communicating to the therapist that danger is at hand. These communications are non-verbal and for the most part out of awareness and conscious control. This is neuroception at work and a downward spiral can ensue.

The client's vagal brake continues to release and the client feels increasingly more activated rather than increasingly calm. The therapist picks up on this unconsciously through their own neuroception or consciously through tracking external signs and now the therapist feels more activated. One of two things happens. Option one is that the client begins to abreact, their sympathetic or dorsal vagal systems taking over. Option two is that in order to prevent this possible abreaction, the therapist begins to avoid areas of the client's experience that may be "hot". The client is often happy to accommodate this avoidance. If, however the traumatic event is only partially treated and then avoided when dysregulation arises, pockets of negative experience are left unprocessed.

Practitioners of EP tend not to have this problem for three reasons. First, they are usually tapping themselves so their bodies are literally less activated, thereby down regulating the client as well. This has not been experimentally verified, but certainly could be. Second, vagal regulation allows the

therapist to feel less anxious, supports presence as well as resonance with the client, and brings autonomic attunement. In particular, the Tell The Story technique in EFT allows the therapist and the client to untangle the different aspects of a specific traumatic event that would otherwise trigger a move out of ventral vagal regulation and into the “I am not safe” response. Third, once therapists have had a direct experience of being able to regulate their own autonomic responses and co-regulate with their clients. They grow confident in their abilities to process traumatic events. Instead of communicating cues of danger, practitioners of EP who maintain a ventral vagal state during trauma work communicate cues of safety. The client feels the connection to the therapist’s state and is better able to safely work with the traumatic memory.

The process I have depicted so far is active during the session. It helps to account for the rapid resolution of the negative affect associated with a traumatic event in the moment. But, it does not account for the fact that once this happens, the memory of that event tends to be permanently changed. When the client thinks of the event, a day, a week or a month later, he or she is still not bothered by it. How is this possible? For this we turn to the process of therapeutic memory reconsolidation (Ecker, Ticic & Hulley, 2012). Memory reconsolidation theory states that memories are brought in and out of long-term storage connected to the emotional and physiological states associated with them. If you have a traumatic memory of being attacked by a tiger, when you remember the event, it comes back with the all of the associated body based trauma states.

When it goes back into long-term store, it goes back with all of the body based traumatic reactions still attached to it. However, if during the therapy three specific conditions are met, the memory goes back into long-term storage without the body based trauma states. Once that happens it is permanently changed. In other words, the trauma memory is resolved permanently. The three conditions are:

- 1) You need to access the memory itself (have an enlivened experience of it)
- 2) You need to create a counter experience so that the memory is experienced in such a way that it fundamentally contradicts meaning of the original experience
- 3) It must be repeated a number of times.

EP tapping protocols meet the three criteria. It is beyond the scope of this chapter to go into the details of therapeutic memory reconsolidation. I want to underscore a few points as it applies to energy psychology and Polyvagal Theory. The second criteria emphasizes the importance of creating a contradictory meaning of the original event. At first glance, this might seem like a high level neo-cortical cognitive process. As discussed earlier, meaning changes occur in energy psychology treatment, often spontaneously,. However, as clients focus on the memory and tap, they discover that their bodies are rapidly becoming calmer and calmer. By the time they get to a SUDs of 3 or lower, the vagal system is no longer sending the message of a clear and present danger, and a SUDs of zero means the ventral vagal system message is “there is no danger at all”. This is not cognitive. It’s far more subtle and powerful. It is built

into the fabric of the experience. It's in the bone, so to speak. And as the internal autonomic state changes, the meaning must also change.

This accounts for the typical client reaction of being surprised. In the Tell-The-Story technique, this process is broken down in to many sets of nested loops, one set for each piece of the story that creates emotional reactions. Not only are there multiple presentations of an altered memory (step 3), but the actual associative pathways of danger in the story become deconstructed. Each time the therapist stops the client and treats the sense of danger and upset in the path of the story it disrupts the cascade of autonomic dysregulation and brings ventral vagal activation. It disrupts the very flow of autonomic state and energy that makes the memory a traumatic memory.

The third condition is that step 2 must be repeated multiple times. In EP protocols this happens in several ways. Each time a round of tapping is repeated the client reconnects with the experience with more autonomic regulation and less agitation. Once the client is down to zero or near zero, the capstone of successful treatment is when the therapist asks the client to test the work. The client is asked to reconnect with the memory that previously was deeply dysregulating and is asked what is the SUDs. The therapist asks the client to look into every nook and cranny of the memory feeling for places of unease.

One of two things happens. Option 1: the client notices a slight dysregulation to work on. Option 2: the client, who has been attempting to avoid the memory, is now ventral vagally regulated and can safely look into every nook and cranny and discover there is no upset at all! Not only does this lead to a

therapeutic reconsolidation of the memory, it also contradicts experiences of having the memory and becoming dysregulated. In other words the clients deeply learns that they can feel safe in the presence of the memory! And, since they feel safe in the presence of the memory they do not need to engage in avoidance behavior. The ventral vagal state supports the possibility of safely working with other traumatic memories. Either option is a win. If the therapist and client find something, it's a win because they can just be more thorough by continuing to work on the remaining activation. If the client stays totally calm, it's a win because they are done!

Summary:

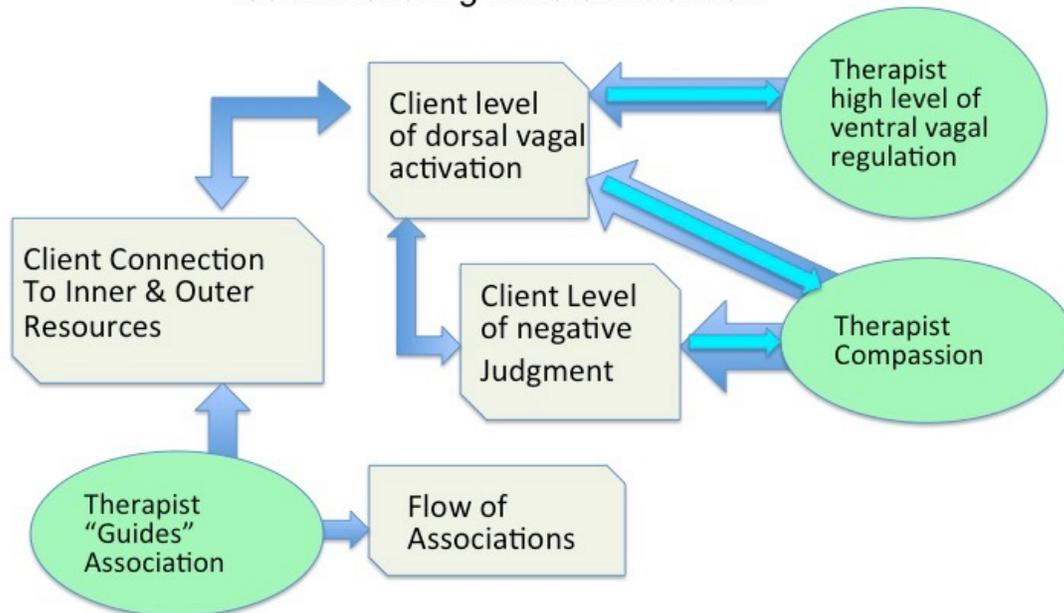
Over the last 15 years the leading edge of trauma work has been focusing on the importance of the body and “bottom up” factors that contribute to the creation of post traumatic stress on the one hand and post traumatic healing on the other.

During this same period there has been a boom in the research that demonstrates the effectiveness and rapidity of energy psychology protocols for treating trauma. In the most popular protocols of EFT and TFT, clients focus their attention on traumatic memories while stimulating acupuncture points usually via “tapping”. Clients who use EP describe that the memory of the event that once created tremendous dysregulation of affect, simply ceases to create negative feelings; and, new insights and meanings tend to follow spontaneously. In this chapter, I have described how EP approaches may be helping clients switch from

dorsal vagal or sympathetic activation to ventral vagal activation when consciously and unconsciously tuning into memories of traumatic events. I have suggested Polyvagal Theory appears to account for some of the research data (e.g. changes in HRV) as well as the felt experience of clients. I have also described how the mediation of vagal activity during energy psychology (such as EFT or TFT) is both a function of intrapersonal factors inside the client as well as interpersonal factors between the client and the therapist (e.g. therapist self tapping in the presence of traumatic material helps to maintain ventral vagal activation in the therapist that helps to down regulate the patient.

Figure 1 Therapist as “Regulator” of Flow of Information and Energy

Calm Hovering Mindful Attention



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