

Therapeutic Presence: Neurophysiological Mechanisms Mediating Feeling Safe in Therapeutic Relationships

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Therapeutic presence involves therapists using their whole self to be both fully engaged and receptively attuned in the moment, with and for the client, to promote effective therapy. In this paper, we present a biobehavioral explanation of how therapeutic presence can facilitate a sense of safety in both therapist and client, to deepen the therapeutic relationship and promote effective therapy. The polyvagal theory is used as a guide to explain how specific features of therapeutic presence trigger a neurophysiological state in both client and therapist within which both perceive and experience feelings of safety. The polyvagal theory proposes that a state of safety is mediated by neuroception, a neural process that may occur without awareness, which constantly evaluates risk and triggers adaptive physiological responses that respond to features of safety, danger, or life threat. According to the theory, when safety is communicated via expressed markers of social engagement (e.g., facial expressions, gestures, and prosodic vocalizations), defensiveness is down-regulated. Cultivating presence and engaging in present-centered relationships can therefore facilitate effective therapy by having both client and therapist enter a physiological state that supports feelings of safety, positive therapeutic relationships, and optimal conditions for growth and change.

Keywords: therapeutic presence, therapeutic alliance, neuroception, polyvagal theory, safety

Effective therapeutic work is only possible when the client feels safe and secure in the therapy setting. Research has demonstrated that the therapeutic relationship is central to positive change for clients in psychotherapy and that differential therapeutic outcomes may only be minimally attributed to specific techniques (Duncan & Moynihan, 1994; Lambert & Ogles, 2004; Lambert & Simon, 2008; Martin, Garske, & Davis, 2000; Norcross, 2002, 2011; Orlinsky, Grawe, & Parks, 1994). These observations guided psychotherapy researchers to consider common factors of therapy that are central to

client improvement (Norcross, 2011). Current research has suggested therapeutic presence may be a core therapeutic stance that contributes to the development of a positive therapeutic relationship (Geller, Greenberg, & Watson, 2010; Geller & Greenberg, 2012; Hayes & Vinca, 2011; Pos, Geller, & Oghene, 2011).

Facilitating feelings of safety and security for the client often emerges through therapists' ability to be fully present and engaged, which is core to the development of a healthy therapeutic relationship (Geller & Greenberg, 2012; Lambert & Simon, 2008; Mearns, 1997; Rogers, 1957, 1980; Siegel, 2007, 2010). While clinical observations affirm that presence elicits feelings of safety in the client through the development of a positive therapeutic relationship, it is less clear how or why therapists' presence leads to clients' safety and, hence, effective therapeutic work. This paper explores this question through the lens of neuroscience and biobehavioral mechanisms as suggested by the well-researched and established polyvagal theory (Porges, 1995, 1998, 2007, 2011).

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Contemporary neuroscience offers the field of psychotherapy a valid physiological framework for understanding how, through the operation of specific neurophysiological mechanisms, therapists' presence activates clients' feelings of safety (Porges, 2011; Schore, 2003, 2012; Siegel, 2007, 2010). The polyvagal theory is one such perspective that provides the clinician with a neurophysiological explanation of core autonomic mechanisms that support how presence in relationship promotes safety (Cozolino, 2006; Porges, 1995, 1998, 2007, 2011; Siegel, 2007; Schore, 1994, 2003, 2012). The polyvagal theory emphasizes that there are strong links between the autonomic nervous system and behavior and explains that when a client feels safe with the therapist, the client's physiological state can provide optimal conditions for both client and therapist to engage in effective therapeutic work. According to the polyvagal theory (Porges, 2003, 2007, 2011), this optimal "therapeutic" state spontaneously emerges when the nervous system detects features of safety. Once features of safety are detected, the client's physiology shifts to a state that down-regulates their defenses and promotes spontaneous social engagement behaviors. During these periods of shared feelings of safety the therapeutic relationship is strengthened, and the therapeutic process can efficiently progress. In addition to safety promoting optimal engagement between therapist and client, research suggests that a safe therapeutic environment facilitates the development of new neural pathways for the client, which in turn contributes to the repair of attachment injuries and provide the positive social interactions that are essential for health and neural growth for the client (Allison & Rossouw, 2013; Rossouw, 2013).

In this paper we (a) articulate the value of therapists' presence in creating client safety and deepening clients' therapeutic relationships with their therapists and (b) present the polyvagal theory to explain how presence supports neural processes that enable feelings of safety, a fundamental component for healing. First, we will provide a definition and description of therapeutic presence, followed by a presentation of the polyvagal theory. We will then discuss how therapeutic presence contributes to clients' neuroception of safety. Following this, the therapeutic presence theory of change will be de-

scribed in the context of the polyvagal theory so that a neurophysiological description of how therapeutic presence results in the process of change can be illuminated. A clinical vignette will then be presented. Finally, a suggestion for training in therapeutic presence will be offered—one that is supported by neuroscience research, which argues for the integral value in creating a sense of safety with and for the client.

What Is Therapeutic Presence?

Therapeutic presence involves therapists being fully in the moment on several concurrently occurring dimensions, including physical, emotional, cognitive, and relational (Dunn, Callahan, Swift, & Ivanovic, 2013; Geller, 2009, 2013a, 2013b; Geller & Greenberg, 2002, 2012; Geller et al., 2010; Geller, Pos, & Colosimo, 2012; McCollum & Gehart, 2010). Therapeutic presence begins with the therapist cultivating presence prior to a session and meeting the client from this state of presence. Expert therapists have reported that the experience of therapeutic presence involves concurrently (a) being *grounded* and in contact with one's integrated and healthy self; (b) being open, receptive to, and *immersed* in what is poignant in the moment; and (c) having a larger sense of spaciousness and *expansion* of awareness and perception. This grounded, immersed, and expanded awareness also occurs with (d) the intention of being *with and for* the client in service of their healing process. By being grounded, immersed, and spacious, with the intention of being with and for the other, the therapist invites the client into a deeper and shared state of relational therapeutic presence. An empirically validated model of therapeutic presence is described more fully in other publications (see Geller, 2013a, b; Geller & Greenberg, 2002, 2012). It is our opinion that therapists' presence invites the client to feel 'met' and understood, as well as safe enough to become present within their own experience, and in relationship with their therapist, allowing for deeper therapeutic work to occur.

We believe that therapists' present contact with self provides the preliminary mechanism by which therapist attuned responsiveness to the client can occur (Geller & Greenberg, 2012). To be therapeutically present requires therapists to be first grounded, centered, and steady, as well

as open and receptive to the whole of the client's experience. In moments of present-centered engagement, therapists simultaneously are in direct contact with themselves, the client, and the relationship between them. Effective therapists' responsiveness and use of intervention or technique emerges from this attuned in-the-moment connection and resonance with the client's experience (Germer, Siegel, & Fulton, 2005; Geller & Greenberg, 2012; Greenberg, Rice, & Elliott, 1993; Goldfried & Davila, 2005; Lambert & Simon, 2008).

Research on Therapeutic Presence

There is a growing body of research contributing to an understanding of therapeutic presence (Geller, 2001; Geller & Greenberg, 2002; Geller et al., 2010; Hayes & Vinca, 2011; Pos, Geller, & Oghene, 2011). A qualitative study in which therapists were interviewed about their experiences of presence resulted in a model of therapeutic presence that consists of three overarching categories (i.e., *preparation*: the preliminary intention and practice therapists engage in to facilitate their being present; *process*: what therapists are doing when they are being present; and *experience*: what therapists' in-body experience of presence feels like; see Geller, 2001; Geller & Greenberg, 2002, 2012).

A later study involved development of a measure of therapeutic presence, the therapeutic presence inventory (TPI), which was based on the model noted above (Geller, 2001; Geller et al., 2010). Two versions of the TPI were created and studied: One from the therapist's perspective (TPI-T) and the second from the clients' perception of their therapists' presence (TPI-C). The TPI-T can also be used as a self-audit tool for therapists to reflect on their degree of presence with a client (Geller, 2013b). Research demonstrated that both versions of the TPI were reliable and valid (Geller et al., 2010).

Emerging research using the TPI suggests that client reports of their therapists' therapeutic presence is predictive of the therapeutic relationship (Geller et al., 2010) and the therapeutic alliance (Pos et al., 2011). These findings support the propositions that presence provides a necessary foundation to develop a positive working therapeutic relationship and is a necessary foundation for empathic responding (Geller et al., 2010; Hayes & Vinca, 2011; Pos

et al., 2011). TPI-C has also been found to predict a positive therapeutic alliance across person-centered, process-experiential, and cognitive behavioral therapies (Geller, 2001; Geller et al., 2010).

Clients' experience of their therapists' presence has also been found to relate to a positive session outcome (Geller et al., 2010) and symptom reduction (Hayes & Vinca, 2011). Further, a recent study indicates that therapists' preparation of pre-session presence relates to both their in-session presence and positive session outcome (Dunn et al., 2013).

There is a vast body of research indicating that the therapeutic alliance results in positive therapy outcome (Duncan & Moynihan, 1994; Lambert & Ogles, 2004; Lambert & Simon, 2008; Martin, Garske, & Davis, 2000; Norcross, 2002, 2011; Orlinsky, Grawe, & Parks, 1994). Now, emerging studies suggest that presence is a precondition to a positive therapeutic relationship and alliance. These studies contribute to the validity of our theoretical assumptions that one possibility as to how presence contributes to effective therapy is by mediating and promoting a positive therapeutic alliance (Geller & Greenberg, 2012; Geller et al., 2012).

What Is the Polyvagal Theory?

Polyvagal theory is an innovative reconceptualization of how autonomic state and behavior interface. The theory emphasizes a hierarchical relation among three subsystems of the autonomic nervous system that evolved to support adaptive behaviors in response to the particular environmental features of safety, danger, and life threat (Porges, 2011). The theory has received significant interest from researchers and clinicians working with individuals, particularly those with a trauma history. This interest is based on how polyvagal theory articulates two defense systems: (a) the commonly known fight-or-flight system that is associated with activation or the sympathetic nervous system (fight or flight) and (b) a less-known system of immobilization and dissociation that is associated with activation of a phylogenetically more ancient vagal pathway. The theory is named "polyvagal" to emphasize that there are two vagal circuits. One is an ancient vagal circuit associated with defense. The second is a phylogenetically newer circuit, only observed in

mammals, that is associated with physiological states related to feeling safe and spontaneous social behavior (Porges, 2012).

The theory has stimulated research across several disciplines (e.g., neonatology, obstetrics, bioengineering, pediatrics, psychiatry, psychology, exercise physiology, human factors, etc.) and has been used as a theoretical perspective to generate research questions and explain findings by numerous different research teams (e.g., Ardizzi et al., 2013; Beauchaine, 2001; Beauchaine, Gatzke-Kopp, & Mead, 2007; Egi-zio et al., 2008; Hastings et al., 2008; Perry, Calkins, Nelson, Leerkes, & Marcovitch, 2012; Schwerdtfeger & Friedrich-Mai, 2009; Travis & Wallace, 1997; Weinberg, Klonsky, & Hajcak, 2009; Whitson & El-Sheikh, 2003). For example, the theory has been used as a core theoretical explanation to explain the biobehavioral shutting down that occurs following trauma (Bradshaw, Cook, & McDonald, 2011; Levine, 2010; Ogden, Minton, & Pain, 2006; Quintana, Guastella, Outhred, Hickie, & Kemp, 2012) and has also informed stress researchers of the important role the parasympathetic nervous system and its component vagal circuits play in neurophysiological mechanisms related to defensive strategies associated with reactivity, recovery, and resilience (Brown & Gerbarg, 2005; Evans et al., 2013; Kim & Yosipovitch, 2013; Kogan, Allen, & Weihs, 2012; McEwen, 2002; Wolff, Wadsworth, Wilhelm, & Mauss, 2012).

The polyvagal theory describes the neural mechanisms through which physiological states communicate the experience of safety and contribute to an individual's ability either to feel safe and spontaneously engage with others, or to feel threatened and recruit defensive strategies. The theory articulates how each of three phylogenetic stages in the development of the vertebrate autonomic nervous system is associated with a distinct and measurable autonomic subsystem, each of which remains active and is expressed in humans under certain conditions (Porges, 2009). These three involuntary autonomic subsystems are phylogenetically ordered and behaviorally linked to three global adaptive domains of behavior: (a) social communication (e.g., facial expression, vocalization, listening), (b) defensive strategies associated with mobilization (e.g., fight-or-flight behaviors), and (c) defensive immobilization (e.g., feigning death, vasovagal syncope, behavioral shutdown, and

dissociation). Based on their phylogenetic emergence during the evolution of the vertebrate autonomic nervous system, these neuro-anatomically based subsystems form a response hierarchy.

The hierarchical nature of the autonomic nervous system described in the polyvagal theory is consistent with the construct of dissolution proposed by John H. Jackson (1958), in which more recently evolved neural circuits inhibit the function of older circuits. Therefore, the newest autonomic circuit associated with social communication has the functional capacity to inhibit the older involuntary circuits involved in defense strategies of fight-or-flight or shutdown behaviors.

According to the polyvagal theory, effective social communication can only occur during states when we experience safety, because only then are the neurobiological defense strategies inhibited. Thus, we suggest that one of the keys to successful therapy is for the therapist to be present and to promote client safety so that the client's involuntary defensive subsystems are down-regulated and the client's newer social engagement system is potentiated. Functionally, during therapy, the repeated present-moment encounters provide a "neural" exercise of the social engagement system. As these neural exercises enhance the efficiency and reliability of the neural pathways inhibiting the defense systems, the client acquires a greater accessibility to feelings of safety, openness, and self-exploration.

The polyvagal theory emphasizes the distinct roles of two distinct vagal motor pathways identified in the mammalian autonomic nervous system. The vagus is a cranial nerve that exits the brainstem and provides bidirectional communication between brain and several visceral organs. The vagus conveys (and monitors) the primary parasympathetic influence to the viscera. Most of the neural fibers in the vagus are sensory (i.e., approximately 80%). However, most interest has been directed to the motor fibers that regulate the visceral organs, including the heart and the gut. Of these motor fibers, only approximately 15% are myelinated. Myelin, a fatty coating over the neural fiber, is associated with faster and more tightly regulated neural control circuits.

Unlike other vertebrates, mammals have two functionally distinct vagal circuits. One vagal

circuit is phylogenetically older and unmyelinated. It originates in a brainstem area called the dorsal motor nucleus of the vagus. The other vagal circuit is uniquely mammalian and myelinated. The myelinated vagal circuit originates in a brainstem area called the nucleus ambiguus. The phylogenetically older unmyelinated vagal motor pathways are shared with most vertebrates and, in mammals when not recruited as a defense system, function to support health, growth, and restoration via neurally regulation of subdiaphragmatic organs (i.e., internal organs below the diaphragm). The “newer” myelinated vagal motor pathways, which are observed only in mammals, regulate the supradiaphragmatic organs (e.g., heart and lungs). This newer vagal circuit slows heart rate and supports states of calmness.

Through brainstem mechanisms, the phylogenetically newer vagal circuit is also neuroanatomically and neurophysiologically linked to the cranial nerves that regulate the striated muscles of the face and head, which are the primary structures involved in social engagement behaviors. This neuroanatomically based “face–heart” connection provides mammals with an integrated “social engagement system” through which vocal prosody and facial expression functionally convey an individual’s present physiological state to others (Porges, 2011, 2012; Porges & Lewis, 2009; Stewart et al., 2013). When the newer mammalian vagus is optimally functioning in social interactions (i.e., inhibiting the sympathetic excitation that promotes fight-or-flight behaviors), emotions are well regulated, vocal prosody is rich, and the autonomic state supports calm spontaneous social engagement behaviors. The face–heart system is bidirectional with the newer myelinated vagal circuit influencing social interactions and positive social interactions influencing vagal function to optimize health, dampen stress-related physiological states, and support growth and restoration.

According to the polyvagal theory, when the individual feels safe, two important features are expressed. First, bodily state is regulated in an efficient manner to promote growth and restoration (e.g., visceral homeostasis). Functionally, this is accomplished through an increase in the influence of myelinated vagal motor pathways on the cardiac pacemaker to slow heart rate, inhibit the fight-or-flight mechanisms of the

sympathetic nervous system, dampen the stress response system of the hypothalamic–pituitary–adrenal axis (e.g., cortisol), and reduce inflammation by modulating immune reactions (e.g., cytokines). Second, through the process of evolution, the brainstem nuclei that regulate the myelinated vagus became integrated with the nuclei that regulate the muscles of the face and head. This integration of neuroanatomical structures in the brainstem provide the neural pathways for a functional social engagement system characterized by a bidirectional coupling between bodily states and the spontaneous social engagement behaviors expressed in facial expressions and prosodic vocalizations. Thus, the behavioral manifestation of this integrated social engagement system observed in mammals emerged specifically as a consequence of the neural pathways regulating visceral states (via the myelinated vagus), becoming neuroanatomically and neurophysiologically linked with the neural pathways regulating the muscles (via special visceral efferent pathways) controlling gaze, facial expression, head gesture, listening, and prosody (see Porges, 2001, 2007, 2009).

Neuroception

Within the context of therapeutic presence, the polyvagal theory provides a neurophysiological perspective that can explain how bodily feelings and emotions potentially can be influenced by the presence of others. Not only is there bidirectional communication between brain (i.e., central nervous system) and body, but also there is bidirectional communication *between* the nervous systems of the people who constitute our social environment (Cozolino, 2006; Porges, 2011; Siegel, 2007, 2010). Often, this bidirectional communication operates outside the realm of awareness and we are left with a “gut” (visceral) feeling that alerts us to discomfort within a social interaction. This process of automatic evaluation of risk in the environment without awareness has been labeled *neuroception* (Porges, 2003, 2007).

Neuroception is posited to take place in the brain, most likely involving areas of the prefrontal and temporal cortices with projections to the amygdala and the periaqueductal gray (Porges, 2003). As a process influencing our autonomic nervous system, neuroception is viewed as an adaptive mechanism that can ei-

ther turn off defenses to engage others or prepare us for defensive strategies associated with either fight-or-flight behaviors or shutdown. Moreover, as this process shifts autonomic state, it may also bias perception of others in the negative direction during states supporting fight-or-flight or in a positive direction during states supporting social engagement. If our physiological state shifts toward behavioral shutdown and dissociation (i.e., mediated by the unmyelinated vagal pathways), we lose contact with the environment and others.

Our nervous system continuously monitors and evaluates risk in the environment. When features of safety, danger, or life threat are detected areas of the brainstem are activated that regulate autonomic structures. When features of safety are detected autonomic reactions promote open receptivity with others, but when features of threat are detected autonomic reactions promote a closed state limiting the awareness of others (Porges, 2003, 2007). For example, in the presence of someone with whom an individual feels safe, a person experiences the sequelae of positive social engagement behaviors consistent with a neuroception of safety. Our physiology calms and our defenses are inhibited. Defensive strategies are then replaced with gestures associated with feeling safe and with this state of safety there is a perceptual bias toward the positive. Appropriately executed prosocial spontaneous interactions reduce psychological and physical distance. Thus, activating a sense of safety through being present with and for the client, can down-regulate the client's defenses and promote positive growth and change.

The polyvagal theory (Porges, 2011) explicitly describes the mechanisms of bidirectional communication between the brain and the visceral organs in our body that occur during stress responses. This bidirectional influence between our brain and visceral organs explains how the therapist's social and emotional responses to the client can potentially, by influencing the physiological state of the client, mediate either an expansion or restriction of the client's range and valence of socioemotional responding. Similarly, the client's socioemotional responses can impact the therapist's physiological state and potentially bias the therapist's interpretations of the client's responses from support to reactive. Recent neuroscience theory has suggested that

this bidirectional communication between areas in the right hemisphere promote adaptive interpersonal functioning between therapist and client (Allison & Rossouw, 2013; Schore, 2012; Siegel, 2012). This right-hemispheric bias in behavioral state regulation is consistent with the profound impact of the "right" myelinated vagus in the regulation of physiological state (see Porges, Doussard-Roosevelt, & Maiti, 1994).

The attachment literature documents that trauma and early lack of attunement (i.e., a caregiver not attuned to the needs of the child) result in emotional dysregulation (Schore, 1994, 2003; van der Kolk, 1994, 2011). When one experiences lack of attachment to one's primary caregivers, one can perceive oneself to be chronically in danger. As such, a person with a trauma background may have an autonomic nervous system that chronically maintains a reaction to danger that precludes the down-regulation of defense strategies. Perpetuation of these early experiences may then also result in challenges in the social world of these clients to which they may respond defensively even when there is no risk. This profoundly impacts the individual's social world by removing them from naturally occurring reciprocal positive reinforcement implicit in supportive social interactions. Instead, a feedback loop is created, as others socially disengage from the reactive trauma survivor, further heightening the trauma individual's sense of isolation. Such disengagements may be as subtle as the lack of a contingent facial expression, or speaking with a flat vocal tone, or as blatant as using a dominating voice or overtly turning away (e.g., to repeatedly look at the clock in a therapy session or to answer the phone in a session).

Consistent with the polyvagal theory, these potent regulators of our physiological state that mediate emotional expression are embedded in relationships (Cozolino, 2006; Siegel, 2012). Myron Hofer (1994) employed a similar concept to explain the role of mother-infant interactions in facilitating the health and growth of infants. The core of the social engagement system in mammals is reflected in the bidirectional neural communication between the face and the heart (Porges, 2012). Through reciprocal interactions, via facial expressivity, gesture, and prosodic vocalizations, attunement occurs between the social engagement systems of two individuals. This attunement, consistent with Hofer's

insights, regulates behavioral states (i.e., emotional regulation) and simultaneously promotes health, growth, and restoration.

While a lack of attunement in early relationships may be the cause of current emotional dysregulation, attunement and connection in current relationships can heal or, at minimum, exercise the neural circuits (i.e., the social engagement system) that support feelings of safety (Allison & Rossouw, 2013; Grawe, 2007; Porges, 2011; Siegel, 2010). From this perspective, physiological activation and/or emotional dysregulation can be stabilized through social interactions, which would include, as described below, warm facial expression, open body posture, vocal tone, and prosody (intonation and rhythm of vocalizations).

Therapeutic Presence and the Neuroception of Safety

Polyvagal theory helps us understand how therapeutic presence can contribute to effective therapy by strengthening the therapeutic relationship and enhancing the clients' sense of safety. The polyvagal theory posits a functional "neural love code," which reflects the evolutionary and biological quest for safety in relationship with others (Porges, 2012). From this view, potent cues of safety or danger that are detected by cortical areas and shift physiological states are communicated interpersonally from movements of the upper part of the face, eye contact, prosody of voice, and body posture. These profound changes in physiological state are mediated by features in the social interaction that are, in general, outside the realm of our awareness. As such, an interaction with another (i.e., with client or therapist) can trigger a broad range of bodily changes that we can and do interpret. For example, when seeing or talking to another there may be feelings in the "pit of the stomach," a sense of urgency to get away, or a desire to engage. Although reminiscent of the James-Lange theory of emotion (Cannon, 1927; James, 1884), polyvagal theory, with its constructs of neuroception and the social engagement system, emphasizes that there are both top-down (i.e., brain to body) and bottom-up (body to brain) signals regulating our physiological state. However, because both top-down and bottom-up pathways can trigger

similar physiological states and psychological experiences, the polyvagal theory provides plausible mechanisms to understand the physiological states that form substrates for a variety of emotions and affective states. Relevant to the clinical setting, the theory also provides an understanding of how to impact physiological states via central pathways involved in neuroception of safety or via behaviors that signal safety. The occurrence of neuroception of safety is detectable by physiological markers (e.g., open posture, soft facial features, and breathing). We posit that these emergent markers of safe reciprocal social interaction can reflect successful therapist offering and client receiving of therapist presence.

An understanding of how automatically physiological states are hierarchically regulated also informs clinicians of the potential of therapeutic presence to therapeutically benefit the client: by recruiting myelinated vagal circuits in the client through nondefensive social engagement. Furthermore, the neural mechanisms of the newer vagal system offer an opportunity through which therapist presence can exercise neural circuits in the client. By supporting the client's capacity for nondefensive social engagement, a client's reactivity can be transformed over time. In the presence of someone who we perceive as safe, the client's experience of safety will result both in their defenses being inhibited and their expressing nonverbal markers of feeling safe. Over time, this would result in additional helpful clinical features such as bodily softening and opening that support client self-awareness. Hence, it is therapeutically beneficial for therapists to communicate with their clients using these nonverbal markers of their own opening and softening, as these will help turn off client defenses and communicate therapists' neuroception of safety as well. Through therapists' warmth and prosody of voice, soft eye contact, open body posture, and receptive and accepting stance, the client experiences a calm and safe therapist and further opens in the therapy encounter. The therapeutic environment and clients' growth is thus profoundly facilitated.

It is for this reason that offering the client a consistent presence that is open, grounded, spacious, and with the intent of being with and for the client, is essential to the development of a

positive therapeutic relationship. By allowing clients to develop feelings of safety over time through providing consistent presence, the therapist relationally regulates the client's nervous system stress responses. This, in turn, facilitates self-exploration through social contact, healing, and deepened self-understanding. Therapeutic presence also allows the therapist to attune to and recognize (i.e., in the facial expression of the client) when the client is not feeling safe as well as how to recognize and regulate their *own* reactivity to maintain authentic consistency with their client.

The Face and Voice

According to the polyvagal theory, the face and voice are powerful conduits through which safety is communicated to another. This is consistent with the clinical notion that the face is where presence is communicated to the client (Geller & Greenberg, 2012). In the view of Levinas (1985), faces are information centers that offer encounters with the other that are direct and profound. Looking at the face of the other and listening to voice are central to human relating, dialogue, and presence (Geller & Greenberg, 2012).

The importance of facial connection and prosody of speech is affirmed in the polyvagal theory. From this perspective, the neural connection between face (and voice) and heart provides a portal through which neural regulation of physiological states can be exercised through social engagement. In offering therapeutic presence the therapist's warm facial connection, receptive posture, open heart, and listening presence help the client to feel safe and further precipitates neural regulation of the client's physiology. Over time, consistently offered present-centered encounters with the therapist can strengthen the client's emotional regulation. This occurs as the client's physiology begins to entrain with the therapists' presence. Consistent therapist presence shifts the client to more frequently experience safety in social interactions. Hence, effective therapy requires repeated present engagement by the therapist, which would include the therapist being able to self-regulate, and to be open and available in the face of the client's defense and pain.

Therapeutic Presence Theory of Relationship

From the perspective of the polyvagal theory and therapeutic presence theory of relationship, a present-centered therapist activates an experience of safety in the client through a warm facial expression and a prosodic voice (Porges, 2007, 2009, 2011). The client's neural assessment of safety then provokes a shift in physiological regulation that enables an inhibition of defense and supports the responses that reflect calm, openness, and trust. Therefore, we suggest that feeling met and heard by a present therapist capable of being attuned and responsive to clients' experience and physiology allows clients to drop their defenses and to themselves feel open and present. We assert that this shared biobehavioral state is not only healing in and of itself, but allows for the possibility of deeper therapeutic work conducted in the safety of the relationship.

The therapeutic presence theory of relationship proposes that therapeutic presence is an essential component underlying any effective therapeutic relationship. Regardless of theoretical orientation, or type of therapeutic approach, presence promotes good session process and outcome, as well as enhances the therapeutic alliance (Geller, 2013a, 2013b; Geller & Greenberg, 2012; Geller et al., 2012). This theory suggests therapists' presence provides the therapy relationship with the type of depth and connection needed to help clients feel safe enough to access their deepest feelings, meanings, concerns and needs, and to share these with the therapist. Therapeutic presence provides the type of environment in which these feelings and needs can be most effectively attended to, explored, shared and transformed.

From this perspective, present-centered engagement with the client also originates in the therapist through an internal preparation and intention for presence. This preparation includes the therapist's cultivation of a capacity for presence both in life and prior to meeting the patient (Geller & Greenberg, 2002, 2012). Therapist presence with self or internal attunement facilitates a sense of calm and safety within the therapist as he or she prepares to meet the client (Siegel, 2010). There is evidence that attuning to one's self and one's "felt sense" (Gendlin, 1978) of another, as therapeutic presence en-

tails, is the basis for attuning to and understanding the other (Siegel, 2007, 2010). We posit that this experienced attunement, the client “feeling felt” by the therapist (Siegel, 2007), impacts the client’s physiology through the calming feelings of safety that is evoked when one feels met and understood.

The theory of therapeutic relating based on presence also suggests that although the experience of presence by the therapist and its communication to the client is important, it is healing only if the client *experiences* the therapist as being fully there in the moment (Geller & Greenberg, 2012). This is based on research suggesting that it is the clients’ experience of their therapists’ presence, not the therapists’ experience, which promotes positive therapeutic process and change as well as a strong therapeutic alliance (Geller et al., 2010; Pos et al., 2011). There are also reciprocal relationships among the therapist’s felt and communicated presence, clients receiving and feeling therapists as present with them, and both parties developing greater presence within and between each other. This presence growing within and between therapist and clients contribute to the development of *relational presence*. Relational presence provides the conditions for an “I–thou” encounter and, ultimately, this mutual relational presence also promotes relational depth, safety, and therapeutic change (Buber, 1958; Cooper, 2005; Geller, 2013a; Geller & Greenberg, 2012).

Emerging theories from several scientific disciplines including neuroscience research invites us to recognize our inherent relational nature (Cozolino, 2006; Porges, 2011; Siegel, 2007,

2010). Through relationally attuning, there can be what has been termed “brain-to-brain coupling” (Hasson, Ghazanfar, Galantucci, Garrod, & Keysers, 2012), which results in a resonance from one brain to another. We believe that as the therapist is self-attuned and approaches the client with a calm and engaged presence, an entrainment process ensues that invites the client’s brain to regulate into a safe presence-centered state.

We propose that the cultivation of safety through the emergence of a relational presence promotes therapeutic effectiveness and client’s positive growth and change through three mechanisms. Relational presence facilitates (a) clients’ openness to engage in therapeutic work, (b) strengthening of the therapeutic relationship, and (c) therapists’ being more attuned to the readiness of the client and more able to optimally offer effective and attuned interventions or responses (see Figure 1). Further, over time, from the perspective of the polyvagal theory, the client’s capacity for neuroception of safety is encouraged through repeated encounters in the presence of a safe present therapist.

In summary, a relationship theory based on therapeutic presence suggests that therapeutic presence will lead to the development of a synergistic relationship in which the client develops greater presence, while the deepening of relational presence between therapist and client occurs simultaneously. This has been articulated through the lens of the polyvagal theory. As the client, via neuroception, reacts (without cognitive awareness) to the present-centered therapist as safe, the client’s physiology becomes regulated and calm, al-

How Does Therapeutic Presence Promote Safety and Therapy Effectiveness?

Therapists Attunement to Self----->Therapist Attunement to Client---->Client
feeling felt, calming, becoming present within (safety)----->(a) and (b) and (c)*

- (a) Client feeling safe to open and engage in therapeutic work
- (b) Strengthening of therapeutic relationship
- (c) Therapist responses and interventions attuned to the optimal moment for client to receive

Figure 1. * Note: Repeated engagement and presence from therapist also exercises neural regulation of the muscles involved in the client’s experience of safety in self and in relationship.

lowing for more openness and presence in the client. As such, we believe that presence is a relational stance fundamental to evoking a sense of safety in the therapist, in the client, and in the relational therapeutic environment. This sense of safety in turn can further promote a positive therapeutic alliance and effective clinical work across different therapeutic approaches.

Clinical Vignette

Present-moment awareness and self-regulation are helpful for therapists to not only maintain presence in session, but also to notice when either they or their clients “close down.” Through their present, in-the-moment awareness, the therapist has an opportunity to shift his or her own and the client’s engagement. Following are two examples depicting two types of therapeutic interaction: (a) non-presence and (b) a return to therapeutic presence. The example of nonpresence reflects how when the therapist shuts down in a therapeutic moment, the client begins to feel unsafe and therefore pulls away. The example of returned presence reflects how a therapist used his or her awareness of their own internal barriers to their own presence in the moment in order to reconnect to both the moment and the client to reestablish safety in the therapeutic encounter. Possible neurophysiological signs of connection and disconnection that the therapist might learn to attend to are suggested in parentheses to illustrate what happens concurrently in the brain and the body when the therapist is not present and when he or she is fully with and attuned to the client.

Nonpresence: Vignette Reflecting the Barriers to Presence

Michael cried as he talked about the guilt he felt since his wife Sally had died. He described a fight he had with Sally a few weeks before her death where he walked out of the house in an angry huff. When he returned that evening, her health had taken a turn for the worse, and her speech was now permanently compromised from a stroke. He cried with remorse wondering if the stress from their fight and his leaving had caused her health to decline. As I was listening to him, I began to feel anxious and overwhelmed, doubting my ability to help him with his complicated grief (*beginning of disconnection and*

therapist withdrawal). My anxiety grew as I began to hear my own internal voice say, “you can’t help him . . . you fought with your own mother before she died and you still feel guilty . . . who do you think you are?” (*Therapist’s sympathetic nervous system is activated and a relational disconnection occurring*). My responses to him were concrete and flat and my facial features tightened as I battled with my own critical voices (*loss of myelinated vagal tone reflected in a loss of neuromuscular tone to upper part of the face with a resultant flat face—voice would also lose prosody, and likely muscle tone would increase to the lower face as part of a more hardened aggressive stance. Also, as neuromuscular tone is reduced to the upper face, there is a parallel reduction of neuromuscular tone to the middle ear muscles and the therapist starts to lose contact with the syntactic and affective content of the client’s vocalizations*). Michael went silent and his tears stopped (*neuroception of a loss of safety as the client automatically perceived the therapist withdraw*), while he shifted the conversation to the demands at his work and all the tasks he had to complete. I felt the disconnection between us and did not know how to proceed (*therapist accurate perception of loss of safety and connection*).

The disconnection and loss of safety that is referred to in the previous example is a result of the emergence of the therapist’s own barriers (*self-doubt and unresolved issues from her mother’s death*).

Therapeutic Presence: Vignette Reflecting a Return to the Moment

Therapeutic presence is not just about being fully in the moment with a client, but also having a moment to moment awareness of the barriers to one’s being present and being able to bring one’s full awareness back to the client when these barriers emerge. The following example reflects the therapist’s awareness of both the self-doubt and the subsequent disconnection. This awareness of non-presence within herself and between her and her client helped her to bring her attention back to the moment. This therapist continues:

As I became aware of the disconnection and my anxiousness, I took a few deep breaths to help regulate my emotions and bring my attention back to the room. (*Exhaling slowly potentiated the myelinated vagal “brak” on the heart, resulting in greater calm.*) As I started to talk to Michael, I could feel my facial expression soften (*as a result of the calmer physiological state in the therapist the upper part of therapist’s face provided warm cues to the client*), my voice was rich with prosody, and I sensed our connection as he calmed and spontaneously engaged me by leaning forward with a facial expression that

I experienced as open and feeling understood. My prior practice in presence primed me to silently imagine putting my doubts and my unresolved issues with my mother aside for the moment. I noticed how Michael's distance and shutdown reflected my own internal distancing. I invited my attention back to the moment and was able to return with my full awareness to my client. As I looked in Michael's eyes I reflected in a soft and warm voice, "The pain is so deep . . . pain and regret at wishing it could have been different. . . ." Michael's tears began to well up again as he looked to me and said, "yes, I feel deep sadness . . . I miss her so much."

I shared with Michael the sense of helplessness in the face of grief, and this open and compassionate sharing not only allowed him to open and express his layers of grief and despair, but also deepened the bond between us. (*As long as therapist's social engagement system was 'online', she was present and could support Michael with the appropriate cues to trigger in his nervous system a neuroception of safety that would enable him to process his profound grief.*)

The therapist's present-moment awareness served to notice the disconnection while her prior "presence practice" allowed her to self-regulate (through deep breathing and awareness), put aside self doubt and unresolved issues, and return with full open presence to the client. In this example, the therapist's inward attending and contact with her experience, which is a part of the practice of therapeutic presence, allowed her to notice her own barriers and her distancing from the client. She was then able to return her attention back to the client and open to the difficult feelings that he was experiencing, both of which allowed for a repair in the relational disconnection. This reconnection invited the client back to a place of safety with the therapist where he could then grieve fully the loss of his wife.

Final Remarks

Using empirical neurophysiological support provided by the polyvagal theory, it appears that feeling safe is a necessary prerequisite to establishing strong social bonds (i.e., a therapeutic relationship), that are potentially helpful or healing for a client. We propose that through present-centered relating that includes eye contact, softening and warmth in voice, vocal prosody, emotional attunement and in-the-moment engagement, the client perceives safety. This experience of neuroception of safety eventually shuts down the client's defenses, which is healing in and of itself and also helps therapist and

client engage in therapeutic work. Further, the capacity of the brain to develop new neural connections leading to calmer and healthier emotional states is facilitated when a safe therapeutic environment is promoted through the cultivation and expression of therapists' presence (Allison & Rossouw, 2013; Cozolino, 2006; Geller & Greenberg, 2012; Porges, 2011).

In this vein, we view therapeutic presence and the creation of safety that it supports as a transtheoretically important therapeutic process (Geller et al., 2012). Powerful in and of itself, therapeutic presence can also promote the greatest efficacy when accompanied with modality specific techniques (Geller, 2013b; Geller & Greenberg, 2012). If, instead, a scripted and nonreflective response or intervention is provided to clients without present awareness of the client's in the moment experience, by a therapist who is detached from the humanism of the person-to-person encounter that psychotherapy entails, the client may feel defended and the intervention will be limited in its efficacy. Alternatively, offering the intervention in a way that is infused with therapeutic presence and attuned to the readiness of the client, promotes client's safety and optimizes the window through which effective therapeutic work can occur.

We propose that cultivating presence and understanding the neurophysiological underpinnings of creating safety needs to be an essential component in therapist training programs across modalities. Psychotherapy training typically focuses on intervention and techniques without attention to how the therapist can cultivate the state of being present to support the client's neuroception of safety. We have argued here that therapeutic presence is foundational to promoting client's safety, a core prerequisite for effective therapeutic work regardless of the therapeutic approach. As such, we also argue that understanding and cultivating therapeutic presence should be viewed as an essential foundation in psychotherapy training. It is important for therapists to maintain a calm presence in the face of pain or struggle. Hence, training can include ways of supporting this state through attention to bodily and emotional regulation as well as barriers to positive relating. Findings from neuroscience that reflect the neural correlates that occur between therapists' presence and clients' experience of safety can help ther-

apists understand how to promote greater therapeutic attunement.

Therapist's cultivation of presence can also contribute to a necessary part of the therapist's ongoing self-care. Clients also may benefit in and out of session with neural exercises that promote experiences of inner safety. Such neural exercises that promote the neuroception of safety for both therapist and client can include slow exhalations following deep abdominal breathing (i.e., the influence of the myelinated vagus on the heart is optimized during exhalation), social play (e.g., team sports, group drumming), improvisational music, being in nature, yoga, meditation or programs such as Therapeutic Rhythm and Mindfulness¹ (Geller & Greenberg, 2012), specifically designed to promote therapeutic presence. Promoting the capacity to be present in-session can also benefit the therapist, the client, and their relationship. For example, beginning a session with deep breathing or a mindfulness exercise may help both parties be more in the moment, soften their defenses, and promote deeper engagement.

In summary, the cultivation of therapeutic and relational presence that evokes a safe therapeutic encounter both in and out of session is imperative in order to promote the social engagement that leads to real and lasting change. The polyvagal theory provides us with deep understanding of the bidirectional neural feedback circuits within the brain and body that link human beings in relationship. This knowledge can help us appreciate the importance of approaching the therapeutic encounter in ways that cultivate and communicate being present with and for the client in order to promote clients' optimal health and wellbeing.

We hope that this paper offers an impetus for future research in therapeutic presence and the neurophysiological mechanisms and structures involved in experiences related to presence, attunement, and creating safety. Many research avenues are possible. For example, observing the upper part of the face, vocal quality, posture, and patterns of breathing in both the therapist and client, in moments of presence and nonpresence, may help to illuminate how therapists optimally communicate presence in psychotherapy. Also tracking clients' expressions of safety in relation to provided therapeutic presence may be an important focus. In addition, monitoring changes in a visceral components of the social

engagement system during sessions (i.e., vagal regulation of the heart by quantifying the respiratory sinus arrhythmia component of heart rate variability) as clients receive therapists presence may help to illuminate the neurophysiological regulation and healing that present-centered therapeutic relating can evoke.

¹ See www.rhythmandmindfulness.com.

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