

CHAPTER EIGHT

The problem of presence

Grostein (1978) writes that the capacity to experience space is "a primary apparatus of ego autonomy" originating in infancy when the neonate begins to experience skin as a boundary between self and non-self (cf. Bick, 1968). "Man exists and thinks in spatial terms. He seems to correlate external spatial phenomena with a template of inner space corresponding to this external space. Space becomes the context and perspective for thought and the road-map of experience" (Grostein, 1978, p. 56). He believes that the maturing awareness and tolerance of the "gap", the space in distance and time between the going and coming of the primary object (mother/therapist), constitutes a "baptism of space". The infant's ability to "contain" the space in the absence of his/her carer (or therapist), allows him/her to instigate a sense of space and begin the process of separation. The sense of external space through separation also initiates a sense of internal psychic space, and an internal place where representations, memories, and images can be contained.

Celenza (2005) asks, "Where is analysis?" Although she is referring more specifically to where it takes place in an embodied way between the analytic couple in a shared environment, the question is a generally pertinent one, as she adds,

The physical presence of both the analyst and the analysand is the foundation through which the experience of the analytic process is mediated . . . making the location of bodies a potentially anchoring metaphor for therapeutic action. (p. 1647)

The physical bodily presence of the analytic couple is intrinsic to the reality that each brings to the analytic encounter as real participants: "the presence and engagement of the self in the analytic process is inherently bodily in all its manifestations" (Meissner, 1998b, p. 278). Both the self as intentional agent giving meaning to behaviour and the behaviour itself as expressive of meaning regarding the self's inner world operate in the analytic process. Therefore, the perception of presence is deeply rooted in the development of interiority/exteriority, self, identity, and the whole personhood that Winnicott called "unit status".

Layers of self

Damasio, in the field of neuroscience, also tracks the emergent self as developing through experience of interaction with an object or

In facilitating developmental change and growth, whether for a baby or a patient, the goal is to establish an authentic sense of self. The sense of self is deeply connected to a sense of presence. Winnicott describes this concept of the beginnings of the separate self with the term "unit status". For Winnicott, "unit status" designates the achievement of whole personhood, with the ability to distinguish between "me" and "not-me" and inside and outside:

I wish to mention a form of development that especially affects the infant's capacity for making complex identifications. This has to do with the stage at which the integrating tendencies of the infant bring about a state in which the infant is a unit, a whole person, with an inside and an outside, and a person living in the body, and more or less bounded by the skin. Once outside means "not-ME" then inside means ME, and there is now a place in which to store things . . . Now the infant's growth takes the form of a continuous interchange between inner and outer reality, each being enriched by the other. (1965, p. 91)

The achieving of identity is included in the process of establishing a separate selfhood.

environment, located in space and time (Damasio, 1999, 2012). He divides the self into three layers: the proto-self, the core self, and the autobiographical or extended self. He defines the proto-self as the level of the self that gathers information regarding the state of the body. It is developed in the brain stem and it generates feelings that signify our existence. It is the necessary foundation of the overall self, creates basic consciousness, and is solely concerned with homeostasis. Damasio suggests that primordial feelings, feelings that occur continuously and automatically when one is awake, are the primary production of the proto-self. They provide a non-conscious direct experience of the living body.

The second level of self Damasio calls the core self. He hypothesises that this level of awareness allows most animals, and humans to be conscious of, and react to, their environment. This level of consciousness requires the interaction of the organism with an object and gives a sense of "here and now", the awareness of the present moment, independent of language, reasoning, and memory.

[It] provides the organism with a sense of self about one moment—now—and about one place—here. The scope of core consciousness does not illuminate the future, and the only past it vaguely lets us glimpse that which occurred in the instant just before. There is no elsewhere, there is no before, there is no after. (Damasio, 1999, p. 16)

The third layer of self is the autobiographical (or extended) self, which allows for reflexive self-consciousness. Extended or autobiographical consciousness gives one a coherent picture of history, a narrative that "is now connected to the lived past and the anticipated future" (Damasio, 1999, p. 196). The narrative is formed from real events, imaginary events, past interpretations, and reinterpretations of events. A continuous identity situated in time emerges from the autobiographical self.

"The presence of *you* is the feeling of what happens when *your* being is modified by the acts of apprehending something" (Riva & Waterworth, 2003). Extended consciousness emerges from the gradual build-up of the subject's memories, experienced from the core self. It allows the creation of an internal world, including the imaginary, learning from the past, and the consideration of future possibilities not present in the current situation, as compared to the perceptual world experienced as outside the self (Damasio, 1999).

Damasio suggests that combination of the core and autobiographical selves within the mind produce a "knower", a sense of subjectivity that he elegantly expresses in the title of his book *Self Comes to Mind* (2012, p. 24).

In *The Impersonal World of the Infant* (1985), Stern proposes a very similar development of selfhood that involves a delimiting of inside, outside, self, and other. In a series of overlapping stages, the infant develops from an early emergent self with a sense of "physical cohesion" (p. 7), to a core self, in which the infant creates an organised subjective perspective. This stage involves intense interaction with the carer, who acts as a "self-regulating other" for the infant (p. 102). The stage of the subjective self follows, in which there is an intersubjective exchange of affect with the mother, followed by the verbal stage, which initiates more abstract thinking. Later Stern added a "narrative self" in which the child creates autobiographical representations to create an identity.

In psychoanalytic thought, the development of ego autonomy, independent selfhood, is dependent on the locating of the self in space and the defining of the boundary between me and not-me. In neuroscience, Damasio (1999) proposes that the self and consciousness can be divided into three layers emerging from the proto-self, the inchoate feeling of self that arises from the brain's detailed map of the body, through the core self that registers the here and now "feeling of what happens" and requiring the organism to experience interaction with an object or environment. Finally, the extended, or autobiographical consciousness emerges, located in time, utilising memory, and blending knowledge with immediate experience.

Layers of presence

Researchers in the fields of information and communication technology and cyberpsychology have done fundamental work on defining the sense of presence in practical terms because they wish to propose the parameters on which to base the development of the best tools for communication technology and, particularly, in the realm of immersive virtual reality (Lombard & Ditton, 1997; Mantovani & Riva, 1999; Riva, 2006, 2009; Riva & Waterworth, 2003; Riva et al., 2004, 2006, 2009; Waterworth & Waterworth, 2003b).

Newer views from cognitive and neuroscience suggest that our cognition is influenced and possibly determined by our experiences in the physical world. No longer simply a matter of the manipulation of abstract symbols isolated in the brain, it is, instead, firmly lodged in the bedrock of sensorimotor processing. Just as our minds are situated in the body, our sense of presence is also situated, and related to our intentions and the actions we can take in space. The location of our bodies in space—and what we can do in it—is key to our sense of presence.

Space is defined by action. People experience presence if they are able to act in an external world where they can successfully transform their intentions into actions. Actions are defined by intentions, a person's specific purpose in acting, an end or goal he/she aims at.

It is through the development of a common spatial and temporal framework with external objects, that the agent becomes a self, able to differentiate between internal and external intentions/action ... the emergence of the Self also leads to the recognition of the "Other" as "another intentional Self". (Riva, 2008, p. 107)

Further, his or her experience of intersubjective or social presence is connected to the capacity to interact with the Other in the world, sharing intentional attunement with others. Communication and of levels of presence are integrated in a technologically mediated environment correlates with the intensity of experienced presence (Riva & Waterworth, 2003).

A person's capacity to locate him/herself in space according to the action he/she can do in it gives a sense of basic presence. Presence is the perception of successfully transforming an intention into an action (Riva et al., 2009). This "cyberpsychological" definition of presence, rooted in cognitive and neuroscience, is crucially significant to the study of technologically mediated treatment if one remembers two things. First, there is no potential to successfully transform an intention into an action in today's technologically mediated treatment that takes place in two separate environments, rather than a shared space. Thus, the intensity of the sense of presence, according to their definition, is greatly diminished. Second, without that sense of presence in a shared arena where intentions can be enacted, a patient will

never be able to experience the analyst as real, surviving, and external. Without even the potential to act on intention, the patient can never experience the analyst as outside his/her omnipotent control in a shared reality.

We can see that these theories put forward by scientists involved in virtual reality research, linking presence to an internal and external sense of self and the potential to enact intentions in a shared space, closely align with both infant observation studies and psychoanalytic thought. The concepts of acting in the world of one's intentions and sharing intentional attunement with others recall the psychoanalytic theory of mentalization: the capacity to understand our own and other's behaviour in terms of intentional mental states, such as goals, needs, desires, beliefs, purposes, and reasons. The development of this capacity leads to the subjective experience of self and body as separate, with a sense of agency and the experience of the other as subjectively and physically separate and with a sense of agency (Fonagy et al., 2003).

In early presence research, the word presence was a contraction of the term "telepresence", first coined by MIT cognitive scientist Marvin Minsky in a 1980 article on remote-controlled technology. Lombard and Ditton (1997), in their fundamental paper on the concept of presence, defined it as a perceptual illusion that a technologically mediated experience was not mediated. The technological medium disappears from the conscious attention of the user and he/she behaves as if the mediation were not there. They enumerated six different conceptions of presence, including social richness, a sense of realism, a sense of transportation, a sense of immersion, a sense of interactivity or control, and a sense of the medium itself as a social actor. They suggest that all these definitions of presence are linked by the central idea of the experience producing an illusion of non-mediation. Among the most important variables in determining a sense of presence are sensory richness and the number and consistency of sensory outputs: the greater the number of human senses for which a medium supplies stimulation, the greater the capacity for the medium to produce a sense of presence. Lombard and Ditton also pointed out the importance of media user variables, such as the willingness to suspend disbelief and familiarity with the technology (1997).

The International Society for Presence Research provides a definition that was synthesised during discussion among their members

and allows for various dimensions of presence ranging from those human perceptions that are not technologically mediated (i.e., face-to-face) to fully immersive virtual reality where the technology seems to become invisible.

Presence (a shortened version of the term "telepresence") is a psychological state or subjective perception in which even though part or all of an individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience. (2000)

Riva and Waterworth elaborated and extended this theory of [tele]presence to encompass the concept of presence, itself, regardless of whether it was technologically mediated. They remind us that while the design of virtual reality technology brought the theoretical issue of presence into focus, no one can argue that "... the experience of Presence suddenly emerged with the arrival of virtual reality" (Biocca, quoted in Riva, 2009, p. 159). Instead, they posit that presence is a basic state of consciousness, a fundamental neuropsychological phenomenon the goal of which is to produce a sense of agency or control (Riva et al., 2006). They propose a theory of presence based on four positions:

1. Presence has evolved as a defining feature of the self. The sense of presence enables the nervous system to recognise the separation between external events that may act upon the self in a shared physical world and an internal world where events occur solely within the self. This allows the organism accurately to interpret its perceptions, thereby ensuring its survival.
2. Although the experience of presence is an integrated feeling, theoretically it can be divided into three developmental layers.
3. Each level of presence elucidates a particular aspect of internal-external world separation and is distinguished by individual properties.
4. In humans, the sense of presence "is a direct function of these three layers: the more they are able to differentiate the self from the external world, and the more they are integrated, the more we experience a sense of presence" (Riva & Waterworth, 2003; Riva et al., 2004).

Interestingly, Riva and Waterworth hypothesise that there is a direct link between the development of the three layers of presence with the development of Damasio's (1999) layers of the self: the proto-self, the core self, and the extended or autobiographical self.

Proto presence (self vs. non-self): Damasio says that the proto-self consists of an organised collection of neural patterns that non-consciously maps the ongoing physical state of the organism (Damasio, 1999, p. 154). Each time the proto-self encounters an object, it is changed because, in order to map the object, the brain must adjust the body, signalling those adjustments and the mapped image back to the proto-self (Damasio, 2010, p. 215). Movement plays a central role in this process, which allows any organism automatically to regulate and adapt to its internal and external environment, ensuring the organism's survival. Riva and Waterworth propose that, through the comparison of sensory referred properties of the external world with separate internal sensorimotor representations of those properties, the organism is able to transform that information into appropriate responsive movement. Every perception is relevant to the well-being of the organism and is detected as such by the proto-self. The operations of sensing the state of the organism and acting are closely related. They suggest that the more the proto-self is in the body, the more it is differentiated from the external world. From this concept of proto-self, Riva and Waterworth derive a definition of proto presence.

We can define *proto presence* as an *embodied presence related to the level of perception-action coupling*: the more the organism is able to couple correctly perceptions and movements, the more it differentiates itself from the external world, thus increasing its probability of surviving. (Riva & Waterworth, 2003)

Proto presence is embodied and based on the accurate matching of perception to movement.

Core presence (self vs. present external world): If the proto-self is changed by an encounter with an object, the core self takes this process a step further by connecting that changed proto-self to the external object that changed it. This object becomes the focus of attention (Damasio, 2010, p. 215). The core self exists in the here and now, continually re-created by each object with which it interacts. It has a sense of subjectivity, including perspective, ownership and agency on top of the proto-self's primordial feelings. Damasio hypothesises

that one of the core self's chief functions is to enable the subject to recognise the present moment.

The present is signaled by real time stimuli from the senses, but as perceptions are 90% or more stored knowledge, the present moment needs to be identified for behavior to be appropriate to what is happening out there now. (Gregory, cited in Riva & Waterworth, 2003, Section 2.2, par. 4)

Riva and Waterworth describe the process by which this is achieved as a complex neural mechanism that produces a shift in attentional focus. This shift in perceptual attention enables an organism to identify the external present moment and to differentiate between dreaming and waking. Connecting the core self to the process of core presence, core presence can be thought of as

the activity of selective attention made by the self on perceptions: the more an organism is able to focus on its sensorial experience by leaving in the background the remaining neural processes, the more it is able to identify the present moment and its current tasks, increasing its probability of surviving. (Riva & Waterworth, 2003, Section 2.2, par. 6)

Core presence depends on an ongoing perception of being in an external world and discerning its state.

Extended presence (self in relation to present external world): The extended or autobiographical self encompasses more than just the here and now. Our memories are constructed into a narrative of our past, as well as the imaginable future. To anticipate the future involves planning and deliberation. In the extended self, consciousness has developed to the point where it can not only comprehend the meaning of experience in the here and now, but can attach significance to it. Riva and Waterworth highlight that characteristic of Damasio's extended or autobiographical self: the autobiographical self comprehends the external world with a meaning that has significance, imbuing an event in one's life with worth or value. In their vision, extended presence "[verifies] the significance of the experience for the self. The more the self is present in the significant experiences, the more it will be able to reach its goals, increasing its possibility of surviving" (Riva & Waterworth, 2003). The degree to which we can consider the consequences and significance of events in our current external situation equals the degree to which the sense of presence will be reinforced (Riva et al., 2006, p. 84).

Riva and Waterworth (2003) specifically suggest that *the more integrated these layers of presence are (focused on the same events), the higher the intensity of experienced presence* (in section 3.1, par. 2). When considering the impact of technological mediation on our sense of presence, it is significant that most media, with the exception of immersive virtual reality, only influence a limited number of layers.

In this view of presence based on Damasio's theory of the layers of self, motility, the differentiation of the internal from the external world (including dreaming and waking), and the creation of a sense of the significance of experience all combine to create a sense of reality in the world.

The discovery of mirror neurons and hypothesising about how perception, action, and intention share the same neurological language led Riva to elaborate further on the psychology of presence. As we saw in Chapter Five, mirror neurons, situated in the area of the brain next to motor neurons, fire in the brain when we observe another's actions, mimicking the exact pattern that our brains would use if performing the action ourselves. We experience the actions of the other as if we were performing the same action, having the same emotion, or utterance (Gallese, 2006; Gallese et al., 2007). The same neural substrates are activated whether acts are performed or simply perceived. In addition, it has been observed in both monkeys and humans that even when actions are partially hidden from the observer, mirror neurons can code the action based on *anticipation* of the final goal. This facilitates the ability to predict and understand action intention. When an act is performed, the pathway from the brain to the spinal cord is triggered, leading to movement. When an action is simply observed or imagined, the movement is suppressed: the action is simulated neurally, but not enacted (Gallese, 2009).

Presence locates the self: primary and social presence

Riva suggests, based on the above hypothesis, that it is the sense of presence that enables people to distinguish between a perceived action, an intended action, and a performed one. By being able to locate oneself in space and separate what happens internally from what is happening externally, the distinction between that which is perceived, that which is intended, and that which is enacted is clarified.

People experience presence if they are able to enact in an external world of their intentions. The experience of presence enables the control of agency and social interaction through the unconscious separation of both "internal" and "external" and "self" and "other" (Riva, 2006, 2008, p. 97). "What we need for presence are both the affordance for action (the possibility of acting) and its enaction (the possibility of successfully acting)" (Riva, 2009, p. 161). He defines presence as "the non mediated (prereflexive) perception of successfully transforming an intention into an action (enaction) within an external world" (2008, p. 110).

Like Gallese, Riva is interested in the infant observation studies of Meltzoff (2007), in which he determines that infants monitor their own bodily acts via proprioception and can detect cross-modal equivalents between their own acts-as-felt and acts-as-seen by others. The perception, as well as the execution, of action is perceived within the same internal frame. Infants can relate what they feel, for example, to what they see. Meltzoff observes newborns' ability to imitate the facial expression and simple manual acts of others, despite not being able visually to monitor their own movements. The infants possess a "like-me" framework enabling them to identify the similarities between self and other. Young infants make a basic self/other equivalent connection. "The other is like me but is not confused with me" (Meltzoff, 2007). Further, Meltzoff demonstrates that infants are able to detect intentionality in their carers. They are able to understand adults' attempted goals, even if the adults failed to fulfil them. When the infants observe the adults "accidentally" overshooting or undershooting a target, or failing to pull apart a dumbbell-shaped toy, the infants themselves are able successfully to achieve the adults' intended goals, despite the fact that the adults had failed in the execution. Meltzoff (2007) determines that, from nine to fifteen months, infants are able to infer the goals and intentions of an adult, even if the observed adult is unsuccessful in achieving them. Infants' self-experience allows them to perceive goals, plans, and intentions beyond surface behaviour. Infants use themselves as a framework for understanding the subjectivity of others, and reciprocally learn about the potentials for their own action by observing other's actions (p. 39).

Riva connects Meltzoff's observations that infants understand the goal-directedness in human acts, without yet being able to recognise "whose" intention it is, with the concept of basic presence. He

describes the experience of basic presence as the identification of the other as an intentional self.

It is through the development of a common spatial and temporal framework with external objects, that the agent becomes a self, able to differentiate between internal and external intentions/actions. However, the emergence of the *Self* also leads to the recognition of the "Other" as "another intentional Self". (Riva, 2008, p. 107)

Meltzoff's studies suggest that infants have goals and act intentionally. When an infant sees another act in the same way, his/her own basic experience would suggest that the other has a goal or intention beyond his/her perceived behaviour, even if he/she fails to achieve that goal. It is through interaction with external objects in a shared environmental context from which the basic self and the sense of basic presence emerge (Meltzoff, 2007; Riva, 2008). Thus, basic presence is a state of recognising an intentional other. It is significant that both Riva and Meltzoff emphasise the importance of "a common spatial and temporal framework" (Riva, 2008, p. 107) or "behavioral envelope" (Meltzoff, 2007, p. 12) for the emergence of a sense of both a basic self and basic presence.

From basic (inner) presence emerges social presence (co-presence): "*the non-mediated perception of an enacting Other within an external world*", in which there are also three layers (Riva, 2008, p. 107). The infant develops from recognition that there is an intentional Other, through interactive social presence where there is the recognition of the intention of the Other toward the Self, to shared social presence, where the Self and Other share the same intention and the infant is able to identify intentional attunement in other selves (Riva, 2008, p. 110).

Riva connects experience of higher levels of presence and social presence to higher and more complex potentials for intentions and their enactions.

In summary, Riva inextricably connects the development of the self to the development of a sense of primary and social presence. In fact, he identifies the growing experience of presence as that which facilitates the sense of separation of internal and external and self and other, leading to the feeling of agency and social interaction in the world. He describes the infant at birth, supported by such research as that of Meltzoff, as being able to recognise intention without being aware of whose intention it is. This stage equates with Daniel Stern's

"early emergent self", and the process of separation described by Winnicott and Grotstein.

"Presence-as-process," the seating of the self internally and the perception of the external world as outside us, is achieved by neural development included in the three stages of proto presence (the subject locating the self in the body, as opposed to the external world: inside/outside; self/non self), core presence (self within the present external world), and extended presence (self in relation to the present external world). The outcome of this process is "*presence-as-feeling*: the non mediated (intuitive) perception that an intention is enacted successfully . . . [and] experienced indirectly (prereflexively) by the self through the characteristics of action and experience" (Riva et al., 2006, p. 70). These intentions do not have to be "pre-mediated", but can be "intention-in-action" formed instantaneously and non-consciously impelling movement, as with the intention unfolding process formulated by the BCPSG.

This developmental journey from the basic recognition of the inside of self *vs.* the outside of self to the self in relation to the present external world provides the foundation for infants to use themselves as a reference to understand the internal world of others and, at the same time, learn about the potentials of their own actions by observing those of others. Through this type of relational interaction with intentional others, infants develop more complex social and relational intelligence (Meltzoff, 2007, p. 26).

The development of the self facilitated by the experience of presence leads to the recognition of the other as another intentional self, the outcome of which is "social-presence-as-feeling", the non-mediated perception of other's intentions, including empathy and attunement (Riva et al., 2006). Significantly, this would equate with Winnicott's "unit status", when a person is capable of a separate selfhood participating in a rich interchange between self and other. The achievement of personhood, the beginning of a separate self, depends on the ability to distinguish between "me" and "not-me", and inside and outside (Winnicott, 1965). Without the experience of presence, this would not be possible.

Being in the world with

Spanning disciplines, our sense of self is described as an embodied experience of existing, dependent on intentionality, moving and acting

in space. Psychoanalysts talk of the birth of the self in terms of the experience of the skin as a boundary between self and other. The "baptism of space" is the recognition of the space in distance and time between self and other. The sense of external space through separation initiates a sense of internal psychic space (Grotstein, 1978).

The bodily presence of the analytic couple, inseparable from their minds, is the basis through which the intersubjective relationship in the analytic encounter is mediated. We have seen that Damasio, in the field of neuroscience, also tracks the emergent self as developing through experience of interaction with an object or environment, located in space and time (Damasio, 1999).

To summarise, researchers in information communication theory and technology are concerned with understanding and defining the concept of presence as precisely as possible in order to develop media which support this experience. Their hypotheses are founded on the features of being. These include defining spatiality (space around us and within us), and "being in the world with" (how we experience our existence in reference to others). The perception of presence is deeply rooted in the development of interiority–exteriority, self, and identity, creating a sense of reality in the world. People experience presence if they are able to enact in an external world of their intentions. A person's capacity to locate him/herself in space according to the action he/she can do in it gives a sense of basic presence. Further, the subject's experience of social presence is connected to the subject's capacity to interact with the Other in the world, sharing intentional congruence and attunement with others. These definitions of presence parallel the theoretical and clinical preoccupations of psychoanalysts, whose concerns are to enable a patient to achieve a sense of identity, a separate selfhood, in a relational interchange with the external environment. Both disciplines' concerns intersect most precisely at the point where the practice of psychoanalysis meets the utilisation of communication technology.

We have learnt that the extent to which experiences of levels of presence are integrated in a technologically mediated environment correlates with the degree of experienced presence (Riva & Waterworth, 2003). However, designers of present communication technology cite the numerous ways in which technology cannot fulfil these requirements (Donath, 2001; Olson & Olson, 2000; Ruhleder & Jordan, 1999, 2001; Sellen, 1995; Whittaker, 2003a,b). Why is this important?

The development of a sense of self might require both embodied perception *and* interaction with others. Maclaren (2008) describes the emergence of self in relation to other as a process which takes place over months and is never, even in adulthood, wholly complete. She describes the way that, through an "ongoing negotiation of boundaries" we come to know our own individual selfhood through actively relating to an embodied other. People are embodied intentional beings, orientated *toward* others, and other people's intentionality orientates us. "[The infants] seeking out the gaze of the other enacts the implicit proposal that the other is an intentional communicative being—someone who is not an inanimate object but an active *relating-to-me*" (p. 86).

The intentionality of gaze and the solidity of the body both contribute to the recognition of self through the other. Maclaren suggests that our intercorporeal relations are a condition of the achievement of selfhood and illustrates this through a series of mother–infant studies in which infants respond with a tense fixed distress to an inanimate object and with smooth free cycling in and out of attention with a human being (Maclaren, 2008). It is only through perceiving others who recognise them that infants are able to conceive of themselves as a self. Of course, this recalls Winnicott's question, "What does the baby see when he or she looks at the mother's face? I am suggesting that, ordinarily, what the baby sees is himself or herself" (1971a, p. 112). Mirroring interactions between mother and the child provide a foundation for a sense of self.

Fonagy (2003) writes of "marked mirroring", the mother's ability to reflect the infant's feelings while also making clear that the feeling she is expressing is not hers, but the infant's (p. 231). He links it to Bion's concept of containment. What goes on in therapy is verbal, non-verbal, physiological, conscious, and unconscious. It is all directed toward patients becoming able to know themselves and their feelings, to feel fully present inside and outside, to be whole selves. Presence researchers such as Riva state that one feels present if one is acting in a shared temporal and spatial framework with external objects. Presence requires both the possibility of acting and of successful enacting. It is through interaction with external objects in a shared environmental context, from which the *basic self and the sense of basic presence emerge*. Sense of self and sense of presence are inextricably entwined.

What happens when there is no prospect of the therapeutic couple sharing a temporal or spatial framework? Screen-to-screen, there is no possibility of interacting with external objects in a shared environment. As Heeter (2003), Professor of Telecommunication at Michigan State University says,

The perceived potential for interaction (affordances) acting upon or being acted upon may increase presence . . . the video draws attention to a lack of shared physical space, possibly inhibiting rather than enhancing social presence. *The Teletwindow presents proof of not being there.* (p. 14, my italics)

So, how do psychoanalysts who are thinking about, writing about, and conducting technologically mediated treatments think about the issues of telepresence and co-presence? How do they conceive of a patient making use of an analyst when the potential to use is confined to the imagination rather than seated in the body? Enid Balint said, "the core of psychoanalysis is, in brief, the understanding of intrapsychic processes and states, and their relationship, or lack of it, with external reality" (cited in Parsons, 2009). If there is no external object in a shared environment with whom to interact, can a patient come to understand a relationship with the other, and external reality? What process do we think is happening when we do a mediated treatment?