Communication within a dyadic system

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Abstract: The body, unconsciousness, and consciousness can be considered three stages of evolutionary mind from a phylogenetic perspective, which can be further framed as three hierarchies of mind based on dynamic systems theory. These three hierarchies interact via intrapersonal information flow, working in tandem to manage an individual well. Within a dyadic system, two minds with multiple hierarchies can interact through several basic communication forms (i.e., body-to-body, body-to-unconsciousness, body-to-consciousness, unconsciousness-to-unconsciousness, unconsciousness-to-consciousness, and consciousness-to-consciousness) based on interpersonal information flow. In actual exchanges, these forms are blended and become richer due to intrapersonal information flow. In psychoanalytic therapy, analysts should focus on intrapersonal information flow to enhance patients' self-regulation while emphasizing therapist–patient interaction to execute mutual regulation. Overall, the therapist–patient and mother–infant interaction constitutes a complex communication process.

Key words: phylogenesis; body; unconscious; consciousness; nonverbal communication; dynamic systems theory; mother–infant relationship

1. Introduction

Psychoanalytic therapy has been known as the 'talking cure' for quite some time, causing verbal communication and interpretation to play key roles in the therapeutic process (Bucci, 2012; Jacobs, 2013). However, this scenario is changing. Based on findings from neuroscience and infant research at the end of the 20th century, nonverbal and unconscious communication in psychoanalytic therapy has begun to garner more attention (Bayles, 2007; Seligman et al., 2012; Zhang et al., 2022). Some analysts and researchers, such as the Boston Change Process Study Group (BCPSG, 2010), Beebe et al. (2005), and Rustin (2013), have suggested that nonverbal interaction can directly change implicit relation procedures, serving as an important curative factor; verbal interpretation is not currently considered essential at this time (BCPSG, 2010). A key question has thus hence emerged: what is the relationship between verbal and nonverbal

communication? Some scholars (e.g., BCPSG, 2010; Bucci, 2001; Cates, 2011; Herzog, 2011) have discussed this matter, but their findings warrant further exploration.

Verbal forms of communication are often regarded as explicit and declarative, whereas nonverbal forms are thought to be implicit and procedural (BCPSG, 2010; Beebe et al., 2005). Although this division is not incorrect, it seems incomplete. From a phylogenetic perspective, the body and the unconscious, which tend to work together in nonverbal interactions, can be distinguished into two parts. This article first presents a phylogenetic perspective and dynamic systems theory (DST) in an attempt to understand the hierarchical structure of the mind. Then, DST is embedded within a framework of interpersonal interaction. As the simplest form of interpersonal interaction occurs in a dyadic system, such as therapist–patient and mother–infant, this paper focuses on such systems. This framework should prove helpful in situating communication within interpersonal systems to offer insights into clinical practice and childrearing.

2. Three-hierarchy model of mind

Dynamic System Theory (DST), which is mainly based on general systems theory and nonlinear dynamics, provides a useful tool to understand and investigate change processes (Witherington, 2015) and has thus been widely applied in developmental psychology (see Hollenstein, 2011; Lewis, 2011). Similarly, some analysts and researchers in the psychoanalytic field have regarded the theory as essential. For instance, Seligman (2005) and Palombo (2013) proposed that DST can be used to revise the metatheory of psychoanalysis. BCPSG (2010) and Shapiro (2014, 2015) have employed terms from DST, such as *attractor*, *repellor*, *emergence*, and *self-organization*, to describe changes in patients throughout the therapeutic process. The author of the present article also advocates for this approach, namely by regarding an individual's mind or internal world as a dynamic system.

2.1 The DST perspective

The main ideas of DST can be summarized as follows (see Thelen et al., 2006; Thompson, 2007; Witherington, 2011, 2015):

1. A dynamic system is composed of many constituents—physical, chemical, biological, social, or mental—that interact and operate as a whole in terms of structure and function.
2. A dynamic system is rooted in history; it constantly shifts between stable (i.e., attractor) and unstable (i.e., repellor) states, and its current status is influenced by the past. Sometimes, it can seem so stable that one may consider it a fixed structure or pattern; however, the system is actually in a dynamic equilibrium state.

3. A dynamic system is hierarchical, and:

(1) a lower hierarchy is the base of a higher hierarchy, and the interaction between constituents within the lower hierarchy can possess emergent new properties (e.g., behavior, structure, and patterns) in a higher hierarchy, namely self-organization. This pattern represents a down-top process or upward causality.

(2) a higher hierarchy is more simplified than a lower hierarchy, and it poses constraints on constituents in the lower hierarchy to control the higher hierarchy to some degree. This pattern represents a top-down process or downward causality.

2.2 Three hierarchies of mind

To some extent, the structure of human brain is a reflection of the hierarchical model of dynamic system: whether considering phyletic or ontogenetic evolution, the lowest part occurs earliest and holds a primitive function; the uppermost part occurs latest and possesses the most advanced ability. MacLean's 'triune brain' is a typical model, in which the brain consists of three parts (see Figure 1): the reptilian brain (brainstem), paleomammalian brain (limbic system), and neomammalian brain (neopallium). First of all, the reptilian brain is the "foundation" of the brain, which is mainly responsible for maintaining basic survival functions, such as regulating basic physical functions (e.g., heart rate, respiration and digestion) and maintaining basic behavioral functions of survival and reproduction (e.g., simple and primitive aggression, courtship and mating behaviors, and defending territory). Secondly, the paleomammalian brain is the second hierarchy. This part of the brain structure includes the amygdala (also known as the "survival center," which plays a key role in triggering the fight or flight response) and the hippocampus (which adjusts the "thoughtless" immediate response preference controlled by the amygdala, especially organizing information according to the situation and consequences). Finally, in the highest hierarchy --neomammalian brain, the frontal lobe (also known as the "executive brain") is related to the highest level of function and is responsible for conscious attention, thinking, planning and action (MacLean, 1990).

From the ontogenetic perspective, there are differences in the time when the "triune brain" plays its role: the reptilian brain is first active in the fetal period and can be "fully turned on" at birth. The amygdala in the paleomammalian brain matured at birth, while the hippocampus began to function between the second and third years of life. The neomammalian brain is special. It gradually matures in the process of learning and experience accumulation. It grows exponentially in the first three years after birth, and then remains "plastic" almost throughout the whole life cycle. In short, this "triune brain" constitutes "a three-story, side-by-side duplex whose" (Rustin, 2013; Wallin, 2007).

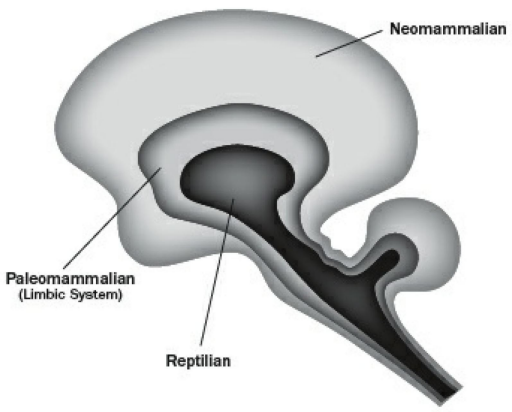

Figure 1. The 'triune brain' model of MacLean (Rustin, 2013, p. 26)

Unlike McLean's "triune brain" model, our "three-hierarchy model of mind" regards the body as a level of mind. The reason is that the body can be regarded as an important form of mind from the phylogenetic perspective. Zhang (2022) combined with the views of (e.g., Martin Heidegger and Maurice Merleau-Ponty), cognitive scientists (e.g., Damasio, 1999, 2010; Thompson, 2007) and other researchers, and then divide the evolutionary process of mind into three stages: (1) Body (without representation). At this stage, the organism realizes a dynamic coupling and completes the adaptation to the environment through direct interaction with the environment. This kind of interaction can be completed without representation. (2) Unconsciousness (with representation but no awareness). At this stage, the organism gradually produces representation, which makes it have one (or even more) intermediary between receiving stimuli and responding, rather than directly responding to the environment. This "indirectness" allows organisms to distance themselves from the world, so there is more 'space' for adjustment, resulting in the possibility of more diverse and efficient action responses. (3) Consciousness (with representation and awareness). Consciousness enables the organism to 'know' this interactive process in the process of conscious dealing with the external world. In addition, it lays the foundation for more advanced and complex capabilities, such as decision-making, plan execution, deferred satisfaction and language. It makes the ability of organism to deal with the environment more diverse, and can better complete the task of adapting to the environment. In this sense, this evolution towards a more complex mind is a process of increasing subjectivity and enriching internality.

In human beings, these three kind of 'mind' coexist and work together. There is no need to say more about the importance of the unconscious and consciousness in the mind. While as a hierarchy of mind, the body represents a form of perception-motor ability, characterized by motor habits or patterns (Thompson, 2007), which makes the coordination with the environment possible. For instance, when a person appreciates a painting, their body will unknowingly regulate for

optimum viewing. As Merleau-Ponty (2012) pointed out, “For each object, just as for each painting in an art gallery, there is an optimal distance from which it asks to be seen – an orientation through which it presents more of itself – beneath or beyond which we merely have a confused perception due to excess or lack. Hence, we tend toward the maximum of visibility and we seek, just as when using a microscope, a better focus point” (pp. 315–316). This perception-motor ability can be innate and learned, which mainly includes three types: (1) Fundamental tendencies of approach/attraction and avoidance/repulsion. The former is involved with expanding, extending, and reaching, such as reaching for a friend or moving toward a gift; the latter is related to stiffening, retracting, and contracting, such as refusing to eat unpleasant-smelling foods or keeping away from ‘badmash’. (2) Some fixed action patterns, such as “bracing, contracting, retracting, fighting, fleeing, and freezing, as well as the setting and maintenance of territorial boundaries”; these patterns can trigger humans’ basic survival instincts when encountering a threat. (3) Learned motor actions, such as dancing, skiing, bike riding, and lovemaking; these types of “action patterns” can be amended by higher hierarchical mind through practice (Levine, 2015).

In three-hierarchy model of mind, the body is at the bottom, laying the foundation for the unconscious; the unconscious is located in the middle hierarchy, laying the foundation for the highest hierarchy of consciousness; consciousness is at the top, which in turn restricts the unconscious and the body. In this sense, it is inappropriate for Stricker (2010) to take behavior as the highest level, consciousness as the middle level, and the unconscious as the lowest level. This kind of thinking mistook the foundation relationship between hierarchical structures. We believe that this construct may even be as advanced as Freud’s first topographic model and is explained as follows (see Figure 2).

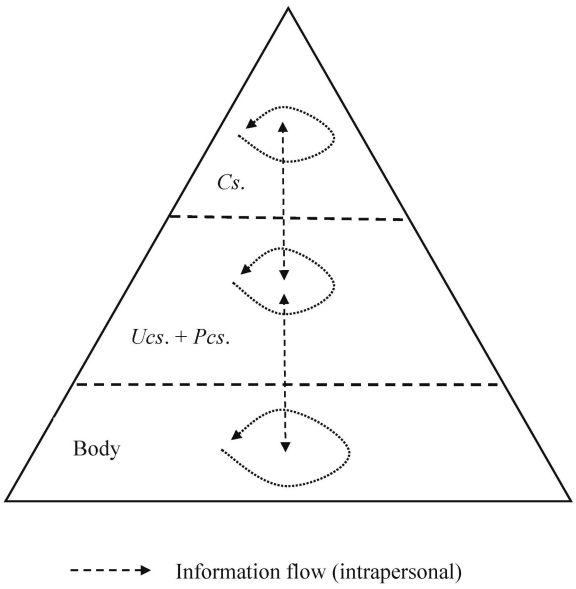

Figure 2. Three hierarchies of mind[1]

Let's take a look at the interrelationship between the three hierarchies. The first is the down-top general line, i.e., from the body to the unconscious, and finally to the consciousness. In this sense, the body connects the individual with the internal and external world. On the one hand, the body can accept the stimulation of the internal and external world and transmit it to a higher level of mind. When facing the external world, the body can be regarded as the shell of the mind, directly contact with the external world, and transmit the received external stimulus signals to the brain, thus affecting the higher-level--the unconscious and consciousness. This is achieved through various channels of external perception, such as vision, auditory and touch. Similarly, when 'communicating' with the internal world, the body can also produce internal feelings (stimulated by smooth muscle and internal environment) and proprioception (from joints, striated muscles and some internal organs) to provide materials for higher-level mental activities. In other words, this bottom-up route starts with the representation of physical activities and accepts the subsymbolic processing and symbolic processing in Bucci's (2001, 2011) multiple code theory. The materials produced by subsymbolic processing cannot enter the level of consciousness and be expressed by language without further symbolic processing. On the contrary, the content that eventually enters the level of consciousness is easy to be expressed in the form of language by symbolic processing. Bucci (2001) described this processing route from body to consciousness as follows: "The bodily components are represented in multiple subsymbolic formats...The contents continue to be elaborated, in nonverbal and later in verbal form" (pp. 50-51).

The second is the top-down general line, i.e., from the conscious level to the unconscious and body level. At the conscious level of human mental activities, language occupies a dominant position, so this part of the content that sinks into the unconscious can often be expressed in language. If these higher-level instructions are further transmitted to the body level, the regulation and control of the body can be realized, so as to show corresponding behavior or body changes. For example, in the learning of various skills (e.g., cycling), individuals can consciously adjust their body posture and make moves such as forward, backward or maintaining balance according to their set goals.

To sum up, the three hierarchies of mind communicate via down-top and top-down processes. They work together to form a structural and functional whole, which is helpful for sustaining humans' effective survival.

[1] In our model, unconsciousness contains both the dynamic unconscious (*Ucs*.) and the descriptively unconscious (*Pcs*.).

3. Multiple communications within a dyadic system

In the above section, we briefly described three hierarchies of the mind and their operations. However, an individual is not isolated from his environment but always related to the latter. In the words of phenomenology, the real person is the person in a specific temporal and spatial context (Zhang, 2022). A point of interest here is interpersonal relationships, which mostly refer in psychoanalysis to dyadic systems, such as analyst–patient and mother–infant. According to the above mental model, several basic forms of communication exist within dyadic systems as illustrated in Figure 3.

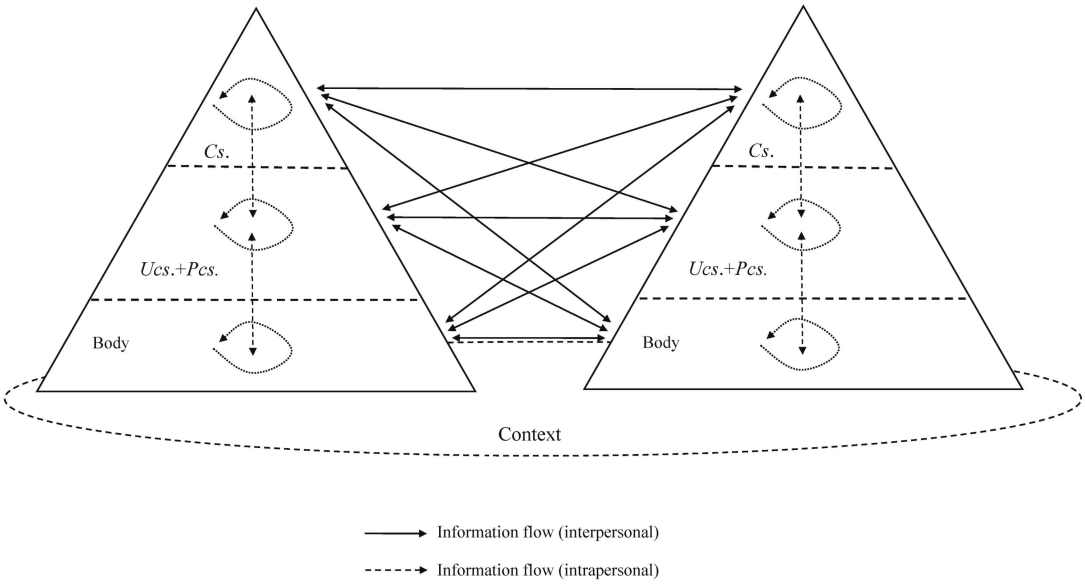

Figure 3. Multiple communications within a dyadic system

3.1 Basic forms of communication within a dyadic system

Body-to-body. This kind of communication is the most fundamental. Compared with other forms, this type is more 'primitive' and direct, whether from a phylogenetic or ontogenetic perspective. It is a kind of skin communication highly related to tactus. It also provides an understanding about others and the self through action rather than merely involving sensory input and output. Strictly speaking, all forms of interpersonal interaction require the body to receive stimuli and accomplish communication; hence, they are inherently based on the body. In this article, *body-to-body communication* refers to direct physical contact.

This kind of communication is common in mother–infant interaction. In the preverbal stages of life, infants do not have the capacity to use language; as such, communicating with caregivers via the body is important. For instance, when an infant is nursing, his mouth is touching the mother's breast, and he simultaneously cuddles into his mother's arms, feeling warm and safe. The mother

touches her baby with her breast, and she can also touch and stroke the baby with her hands. "Language needs to be accompanied by close physical soothing in the form of holding, rocking and gentle sounds such as coos and ahs" (Levine, 2010, p. 264). It can be said that bodily closeness is essential to an infant's survival, and the desire for connection can be acquired via literal proximity of skin-to-skin contact (Wallin, 2007, p. 13). Many investigations have supported the necessity of body-to-body communication for growth and development in early stage. In the 1950s, Harlow's rhesus monkeys experiment demonstrated the importance of bodily communication (Harlow, 1959). Later research has further enriched this finding. For instance, in animal maternal care studies, the offspring of high licking/grooming-arched-back nursing (high-LG-ABN) mothers exhibited fewer startle responses to acute stress and more open-field exploration behaviors, and they were more likely to be high-LG-ABN type as they grew older. By contrast, the offspring of low-LG-ABN mothers showed more startle responses to acute stress and fewer open-field exploration behaviors, and they were more likely to become low-LG-ABN types (Meaney, 2001). Studies in human beings have also indicated the importance of bodily communication. For instance, infants who highly lack touch are more likely to exhibit developmental problems. These negative impacts can continue to adulthood, manifesting as various physical and mental diseases (Linden, 2016). Another case is physical abuse: individuals who have suffered physical abuse or violence in childhood are more likely to demonstrate an insecure attachment style and experience relational problems (Savage, 2014; Unger et al., 2014). As researchers have pointed out, a mother's aversion to physical contact or brusqueness when touching her infant can often elicit an avoidant attachment style in infants (Wallin, 2007, p. 20). Fortunately, potentially disastrous effects resulting from inadequate or improper body-to-body communication may be effectively remitted and improved as long as compensations are made in time (Linden, 2016).

Body-to-body communication can also be seen in peer interactions. An important case is grooming. Research has indicated that primates (e.g., baboons, chimpanzees, and apes) spend much of their waking time (up to 20%) fussing over the skin and fur of their partners. In so doing, they establish and sustain strong alliances, which can play important roles when threats emerge (Dunbar, 2014). Grooming also occurs in vampire bats, culminating in a win-win deal of "I'll groom you, and you'll vomit blood down my throat" (Linden, 2016, p. 32). In human beings, this type of body-to-body communication is exemplified in teamwork. Investigations on NBA players have shown that brief celebratory touching (e.g., fist bumps, leaping shoulder bumps, and high tens) during games can enhance cooperation between teammates, thus facilitating individual and group performance (Linden, 2016).

Apart from mother–infant and peer interactions, communication via physical contact also exists in intimate relationships (e.g., holding hands, hugging, kissing, and engaging in sexual intercourse) and hostile relationships (e.g., pushing and fighting). In a word, "[benign] interpersonal touch is a crucial form of social glue. It can bind sexual partners into lasting couples. It reinforces bonds between parents and their children and between siblings. It connects people in the community and in the workplace, fostering emotions of gratitude, sympathy, and trust" (Linden, 2016, p. 5). However, less body-to-body communication occurs in therapist–patient interaction. In traditional psychoanalytic therapy, direct physical touch is particularly considered taboo. However, if an appropriate opportunity presents itself, physical touch can be helpful in treatment (Breckenridge, 2000; Ruderman, 2000; Westland, 2015).

Body-to-unconsciousness. This type of communication involves changes in an individual's body (e.g., gestures and derivative movements) while another person unconsciously receives this information. In the case of mother–infant interaction, when an infant trembles out of cold or fear, his mother will notice this and unconsciously worry about it. Similarly, if the infant relaxes his body out of pleasure, his mother will gaze at him and smile. In clinical therapy, an analyst may unconsciously receive information from the patient's body language. For instance, if the patient's head or trunk moves away and he refuses to meet the analyst's eyes, then the analyst may feel uncomfortable or even angry. In addition, the body is the base of receiving stimuli such that the body can receive information from other individuals' unconscious hierarchies.

Body-to-consciousness. In this form of communication, an individual consciously detects another's physical changes. For instance, an infant may attract a caregiver's attention by moving the head, neck, arms, and legs. If the caregiver is aware of these movements, she may respond by taking further action (Seligman et al., 2012). In treatment, analysts can consciously identify changes in a patient's body. In the case of Jack, Rustin (2013) discussed the patient's tendency to avoid communication through body language and came to know Jack's mental states. Beebe's treatment of Dolores reflected the same thought: the patient's body can provide important information if the analyst is aware of it (Beebe et al., 2005). Furthermore, as the body is the base for receiving stimuli, it can receive information from other individuals' consciousness.

Unconsciousness-to-unconsciousness. This approach suggests that both sides of communication preclude an awareness of the process. Freud (1932) recognized this type of communication and considered it telepathy. In this way, "mental processes in one person—ideas, emotional states, conative impulses—can be transferred to another person through empty space without employing the familiar methods of communication by means of words and signs" (p. 39). His descriptions of *transference* and *countertransference* also reflected unconscious

communication. However, in his mental model, he did not leave space for unconscious communication because he treated consciousness as a superficial component of the mind (Freud, 1923). More specifically, information from the external world must be processed consciously first before becoming a part of the unconscious (BCPSG, 2010). As such, unconscious communication between individuals is impossible. It is therefore simple to understand the criticism of an 'isolated mind' directed toward Freud (Stolorow et al., 2002, 1992). Freud appeared to 'miss' this form of communication.

Different from Freud's hypothesis, unconscious communication can be real and has not been replaced during the phyletic evolution process; rather, it maintains an important form for many organisms. Some researchers have called this phenomenon *right brain-to-right brain communication* (Schore, 1994) or *mind-to-mind communication* (see de Peyer, 2016). Unconscious emotion or affect communication constitute common forms of mother–infant interaction. For instance, when an infant smiles, the mother often responds in kind. "Affects are contagious … one person's excitement and enthusiasm can arouse excitement and enthusiasm in others. One person's anxiety can put others on edge. One person's depression can bring other people down. Affects in babies are particularly contagious. There are few things as exhilarating as a baby's smile of pure joy; few things as distressing as a baby in pain" (Mitchell et al., 1995, p. 105). Similarly, animals in the natural world can communicate via emotion (Pally, 2001).

This kind of unconscious communication is also common in analytic sessions (de Peyer, 2016), in which it usually presents as transference–countertransference. In this process, the patient unconsciously treats the analyst as a substitute for an early important object (e.g., father or mother), transfers his affect to the analyst, and hopes the analyst will respond in a way that meets his expectations. For instance, the patient may idealize the analyst or even 'fall in love with' him or her, causing the analyst to feel delighted (i.e., positive transference). The patient may also transmit hostility to the analyst (i.e., the analyst is perceived as the 'bad guy'), and the analyst may exude negative emotions out of discomfort (i.e., negative transference) (Freud, 1916). If the analyst is unaware of this communicated information, he may respond unconsciously (i.e., countertransference). This kind of unconscious communication can also be reflected in dream content, such as in transference dreams (e.g., Kavanagh, 1994; Sirois, 2016), and countertransference dreams (e.g., Brown, 2007; Ogden, 2017; Spangler et al., 2009). In addition, when analysts identify with the role the patient assigns to act out his script or template, a process of projective identification follows (Mitchell et al., 1995; Ogden, 1993). In contemporary psychoanalysis, countertransference and enactment are not hindrances to be overcome; instead, they are unavoidable events that can help the analyst receive information from the patient and

understand his or her subjective experiences (e.g., Buirski et al., 2001; Stolorow et al., 1994; Wallin, 2007). More critically, some researchers (e.g., BCPSG, 2010; Beebe et al., 2005; Rustin, 2013) have pointed out that nonverbal (unconscious) communication can produce unique moments that are central to changing patients' implicit relational knowing, thereby functioning as a curative factor.

Unconsciousness-to-consciousness. This form of communication proceeds as follows: one person unconsciously expresses his mental state, and the other is aware of this. For instance, a patient transfers his love to the analyst unconsciously, and the analyst consciously detects this affect. This type of information transmission becomes familiar upon the discovery and emphasis of transference. The analyst may respond to the patient verbally, but the patient also receives information from the rhythm, tone, volume, and speed of the analyst's speech. This interaction also occurs between mother and infant: a mother can consciously receive her infant's unconscious information, and the mother's response to the infant is always based in tone, volume, pace, and rhythm (Seligman et al., 2012).

Consciousness-to-consciousness. This kind of communication indicates that each side detects information from the opposite side and realize they are communicating, mainly based on verbal interaction. This form of communication exists in many settings, such as daily life and clinical situations. Dunbar (2014) pointed out three kinds of verbal communication that can effectively cultivate social bonds: (1) exchanging and building up to a common worldview; (2) sharing stories; and (3) telling jokes. He summarized that verbal communication (one-to-many) is a more efficient form of social interaction compared with grooming (one-to-one). In this sense, "speaking is also doing" (Orange, 2011, p. 199). In other words, language can play a function of 'alternative action' (Zhang, 2022). For example, when we use rude language to humiliate and devalue others, we can achieve an effect similar to 'hitting others.' Similarly, when we use gentle language to comfort and support others, the role can be similar to 'touching others.'

In addition to verbal communication, several important forms of conscious communication should be attended to. Stern (1998) identified three types of nonverbal conscious communication: sharing joint attention (inter-attentionality), sharing intentions (interintentionality), and sharing affective states (interaffectivity). As these kinds of information can be accessed consciously without language, they can be seen in preverbal infants. Investigations have shown that infants around 9 months old can complete these missions when interacting with their mothers (pp. 128–132). However, these forms of conscious communication appear difficult among other animals that possess consciousness (e.g., primates) (Dunbar, 2014; Tomasello, 2008).

3.2 Several notes on multiple communications

Distinguishing basic forms of communication within dyadic systems does not suggest that these communication forms are independent, nor does it imply that the unconscious and conscious mind can function without the body's participation. This classification is simply intended to facilitate understanding of these processes. In actual communication, these forms are always mixed. When one level is dominant, communication at other levels seems to remain behind the scenes. Several supplementary notes follow.

First, human communication differs from that of other organisms. On one hand, the fewer hierarchies organisms have, the fewer communication forms will be available. In early stages of phylogenesis, there is only one communication form: body-to-body. Later, the emergence of the unconscious mind gives way to three types (i.e., body-to-body, body-to-unconsciousness, and unconsciousness-to-unconsciousness). Then, the number of communication forms expands to six after the production of consciousness. On the other hand, although preverbal infants and some animals with consciousness can have six forms of communication, their communication is not the same as adults'. As they cannot use language, information in their unconsciousness and consciousness cannot be verbal. In other words, interactions between conscious animals and mother–infant differ from those between adults.

Second, an individual can send information from more than one hierarchy simultaneously, and the other person can receive information at multiple hierarchies. For instance, emotion or affect communication can be both unconscious and conscious (Bucci, 2001; Stern, 1998). In fact, when a conscious mental activity occurs, more unconscious information follows, and this process can be intertwined with physical changes. Consider the case of child abuse: when a parent uses physical violence (body), he can also revile the child with vulgar words (conscious) and negative emotions (unconscious or conscious). The child receives information from three hierarchies. Similarly, patients in therapy can communicate through words, non-semantic information (e.g., rhythm, tone, volume, and speed), and body language while the analyst receives this information from different hierarchies and vice versa. However, communication within dyadic systems can be asymmetric. Generally, mothers have greater awareness than infants and thus have more extensive ways in which to respond. That is, mothers assume more roles in interactions (Rustin, 2013). Similarly, the analyst's awareness tends to be better than that of the patient, leading the therapist to be more conscious and detect more information than the patient (Wallin, 2007).

Third, when an individual receives information at one hierarchy, he can respond in another form by following the information flow in his mind. For instance, an analyst may unconsciously receive a patient's body language and then become aware of it. At this moment, he can choose to respond via language, emotion, or the body. In the case of Jack, Rustin (2013) unconsciously received

information from the patient's body and then consciously decided to nonverbally transmit "I understand you" and "I will be with you." Consequently, a link between the patient and analyst was established. Conscious regulation plays an important role in this process. Moreover, it is worth noting that an individual may prefer one form of communication over others: "Patients such as Andrew speak primarily through their bodies. When the body is the primary language, working with that language can facilitate an effective therapeutic process. Other patients, such as Willa, also speak through their bodies as one of their languages but not the only one" (Rustin, 2013, p. 108).

Fourth, as multiple communication forms interact, information from different hierarchies can sometimes be inconsistent or contradictory. Investigations have shown that when verbal communication is unclear, nonverbal communication can be a good supplement. If nonverbal cues are consistent with descriptions, then the reliability of verbal forms increases (Kudesia et al., 2013). However, when cues and descriptions are not consistent, the situation becomes complex. In this case, the central processing system will try to eliminate contradictory information, such as by choosing more effective and reliable information in a specific situation or preferring one kind of channel (Bara, 2010, p. 40). Evidence has shown that humans may prefer nonverbal cues (Kudesia et al., 2013; Manusov et al., 2006), which may suggest that nonverbal communication is more important in interpersonal interaction (Manusov et al., 2006).

But why is this the case? Perhaps because information from body and the unconscious is transmitted quickly and directly; by contrast, conscious communication relies more on memory and reasoning and requires greater knowledge and volition (Bara, 2010; Beebe et al., 2005). In other words, mental activities outside of awareness have already influenced individuals once the conscious begins to function effectively. What's more, as body and unconscious constitute the main parts of the mind, their effects on individuals are already large enough. For example, if a person wants to integrate information from the body and the unconscious (i.e., incorporate information derived from the former with conscious information from the latter), then she must employ more reflective power to fight the contradiction. If this endeavor at a conscious level is insufficient, this fight cannot be won.

If this contradiction from different channels cannot be overcome, the person may feel disordered. This phenomenon is more evident for infants who are immature in many respects, as their capacities for awareness and reflection are weak. For instance, consider a mother who suckles her baby impatiently. Her body transfers information that she is nursing the infant, but her negative emotion is also transmitted to the baby. As a result, the baby may feel fear or have a negative experience, such as believing, "I am an undesirable baby" and "Others do not like me."

Thus, "the baby could … be physically close to the attachment figure without feeling secure" (Wallin, 2007, p. 63). When this contradiction occurs, the baby may feel confused and unable to clarify these experiences. A more challenging situation is one in which a safe haven also functions as a source of danger, leaving a child unsure whether to approach or avoid. If this terrifying "biological paradox" repeats many times, the child may develop a disorganized–disoriented attachment style (Wallin, 2007, pp. 22-23).

Last, the therapist–patient or mother–infant dyad can also be treated as a dynamic system in which the therapist and patient or mother and infant act as a constituent or subsystem. New patterns or unpredictable behaviors may emerge during their constant interactions, hence why some researchers treat this process as an improvisational event (BCPSG, 2010; Beebe et al., 2005). This unpredictability renders dyadic communication more complex.

In summary, intrapersonal and interpersonal information flow are interrelated within dyadic systems, which makes communication processes complex. This model also presents a different picture compared with other researchers, who often divide communication into two forms (nonverbal and verbal). Our classification is more detailed, including 'parallel' (i.e., body-to-body, unconsciousness-to-unconsciousness, and consciousness-to-consciousness) and 'intersection' (i.e., body-to-unconsciousness, body-to-consciousness and unconsciousness-to-consciousness).

Accordingly, therapeutic strategies can therefore be formulated from two aspects. One is self-regulation from a one-person perspective, which entails an individual focus: to encourage the patient to perceive his body and emotional states, expand his scope of consciousness, and consciously alter problematic relational patterns and inner conflict. The other is mutual regulation, which assumes a two-person perspective: to change the patient's internal relational procedure (e.g., BCPSG, 2010; Beebe et al., 2005; Fosshage, 2011) via interactions at multiple hierarchies. Ideally, these two regulation modes will be balanced, which can help an individual develop healthier and more flexible ways to manage himself and his relations with others (Beebe et al., 2005).

4. Conclusion

This article refers to phylogenesis and DST before distinguishing three hierarchies of mind: body, unconsciousness, and consciousness. These three hierarchies interact via information flow and cooperate to regulate an individual. This article also discusses several basic forms of communication within dyadic systems: body-to-body, body-to-unconsciousness, body-to-consciousness, unconsciousness-to-unconsciousness, unconsciousness-to-consciousness, and consciousness-to-consciousness. Finally, the article points out that these different communication forms are mixed in actual exchanges and become richer due to intrapersonal

information flow. In psychoanalytic therapy, analysts should focus on intrapersonal information flow to enhance patients' self-regulation, emphasize therapist–patient interaction to execute mutual regulation, and construct a balance between self-regulation and mutual regulation. In brief, psychoanalysis should involve multiple forms of communication within interpersonal interactions; psychoanalytic therapy thus represents more than a talking cure.

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