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# The Nature of Social Systems in Systems Intelligence: Insights from Intersubjective Systems Theory

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Systems intelligence is about the ability to act intelligently in systems we are embedded in. Among the most important and fascinating are the systems which we confront in the everyday: the immediate encounters between two or more human beings. Systems intelligence assumes that micro-level social phenomena can be meaningfully conceptualized from the point of view of systems. Intersubjective systems theory (IST) of Stolorow, Atwood and Orange provides an insightful articulation of such systems. In this chapter we suggest that IST yields remarkable support for the systems intelligence approach. At the same time adopting the intersubjective systems perspective makes us more aware of the subtleties of the context and thus opens possibilities for us to become more systems intelligent<sup>1</sup>.

## Introduction

SYSTEMS INTELLIGENCE IS conceptualized as the subject’s ability to act constructively and productively within an emergent whole as it unfolds even while lacking objectival knowledge, models or codes (Hämäläinen and Saarinen 2007a, p. 5). It accounts for “an individual’s non-rational, non-propositional and non-cognitive capabilities, such as instinctual awareness, touch, ‘feel’, and sensibilities at large, as capabilities that relate the subject intelligently to a system” (Hämäläinen and Saarinen 2006, p. 193). People prereflectively read situations as systems and are able to act intelligently based on that prerational knowledge. Thus we already have much intelligence that we can apply – and indeed do apply – in complex environments and social situations; endowment that amounts to a sort

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<sup>1</sup>We are grateful for Professor Robert D. Stolorow for comments on an earlier draft of this paper.

of “intelligence as part of moment-to-moment human aliveness” (Hämäläinen and Saarinen 2007c, p. 297). This is the insight of systems intelligence in a nutshell.

An evident underlying premise of systems intelligence is that there indeed are some sort of systems in play in our environment that our intelligence can get a grasp on. In this chapter we want to focus on the systems we see as some of the most fascinating and important; those between human beings in the context of an immediate encounter. The essential question then is: what sort of a system constitutes the basis for face-to-face social encounters?

In this chapter, we present one possible conceptualization of the systemic understanding of immediate human interaction: the intersubjective systems theory developed by Robert Stolorow, George Atwood and Donna Orange (see for example Stolorow et al. 2002, Stolorow 2004). We shall argue that IST captures remarkably well many of the intuitions that underlie the systems intelligence paradigm<sup>2</sup>.

IST has been developed as a metatheory of psychotherapy and it reflects profound experience from that practice. In effect, IST reflects the experiences of thousands of hours of clinical therapeutic work by Stolorow, Atwood and Orange. The idea is to provide a perspective that captures the immediate, close-range human encounter of the therapeutic encounter better than the more traditional approaches. The original theory is primarily focused upon the therapeutic system formed by a patient and a therapist but the theory is here generalized to apply to other types of local encounters and face-to-face interactions between two or more human beings. While remaining truthful to the original insights of Stolorow et al.’s theory this generalization sheds remarkable light on the nature of human interaction in immediate social encounters. Apprehending and internalizing the perspective is valuable for anyone who wants to understand social encounters and be able to operate in them with greater systems intelligence.

We suggest that the two theories are connected in three important ways. Firstly IST provides a background rationale for the existence of systems intelligence in face-to-face social situations. Secondly SI complements intersubjective systems theory by pointing out constructive ways of acting in the complex social situations IST describes. Thirdly, acquiring the IST perspective makes us more sensitive to the subtleties of any particular system and is thus likely to enhance our Systems Intelligence.

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<sup>2</sup>In a separate article we study how intersubjective systems theory and systems intelligence could join forces to overcome the objectifying bias evident in mainstream therapeutic theorizing (Martela and Saarinen 2008).

## Background of the Intersubjective Systems Theory

We shall first set the overall context for the intersubjective systems theory, by indicating some general developments in psychoanalytic thinking in the past two decades. In psychoanalytic theorizing a forceful movement has emerged that approaches the psychoanalytic practice in terms of relationships, systems and contextual parameters. The previously dominant, Freudian based and Cartesian background assumptions have been challenged among others by Kohutian self-psychology (Kohut 1959), by Marcia Cavell (1991, 1993), by American relational theory as represented in the work of Stephen Mitchell (1988) and Lewis Aron (1996), and by the work of the Boston Change Process Study Group (Stern et al. 1998; Stern 2004; Beebe et al. 2003; Boston Change Study Group 2003). An essential element in this shift is a departure from Cartesian, objectivist and positivist approaches to perspectivist approaches (Beebe et al. 2003, p. 743) as exemplified by a variety of theorists, including Reese and Overton (1970), Silverman (1994, 1999) and Hoffman (1998). Some of the most fruitful advances of psychoanalytic thinking have been drawn from developmental psychology, particularly as exemplified in the groundbreaking work of Louis Sander (1985, 1991), Stern (1985) and Beebe and Lachmann (2003). Another source of inspiration comes from the findings in cognitive psychology and neuroscience (see Fosshage 2005). The ideas of Thelen and Smith (1994) that build on the theory of dynamic systems has also been influential. As Alan Fogel suggests, the concept of *system* is the central intellectual contribution of 20th century thinking (Fogel 1993, p. 45). The systems perspective lays ground for a fresh and rewarding perspective on human interaction, enriching the relational in human-centered studies that amounts to “thinking of everything as relational through and through” (Rorty 1999, p. 72). It is in this context where the intersubjective systems theory finds its home.

## Intersubjective Systems Theory

The intersubjective systems theory approaches psychological phenomena “not as products of isolated intrapsychic mechanisms, but as forming at the interface of reciprocally interacting subjectivities” (Stolorow and Atwood 1992, p. 1). In opposition to traditional psychological and psychoanalytical theories which are based on the often implicit “Myth of the Isolated Mind” (Stolorow and Atwood 1992, p. 7), the intersubjective field theory of mind states that psychological phenomena “cannot be understood apart from the intersubjective contexts in which they take form” (Atwood and Stolorow 1984, p. 64). The perspective seeks to overcome the subject-object dichotomy and aims to address the essentially affective and prereflective nature of a social encounter.

In order to appreciate the importance of the intersubjectivity perspective of Stolorow, Atwood and Orange, we must start by briefly examining the notion of the Cartesian mind that has provided the dominant background paradigm for psychology, psychoanalysis and everyday understanding of human beings<sup>3</sup>.

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<sup>3</sup>In this analysis Stolorow et al. rely much on Charles Taylor’s (1989) classical analysis of the modern concept of the self in western culture.

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From the Cartesian perspective the mind is seen “in isolation, radically separated from an external reality that it either accurately apprehends or distorts” (Orange et al. 1997, p. 41). The mind is conceived as an essentially atomistic and self-enclosed entity detached from the world by the infamous subject-object split (Stolorow et al. 2002, pp. 21–23). The mind is “a thing that has an inside and that causally interacts with other things” of which it can have more or less correct ideas about (Stolorow et al. 2002, p. 31). The external world and the mind are thus two separate and independent entities that are somehow able to interact with each other. When perceived in terms of these often tacit Cartesian intuitions, a therapeutic situation is seen as involving the patient as an isolated subject and in terms of an objective analyst who is trying to influence the patient from the outside.

The intersubjective systems view puts out an alternative theory which is based on a radical rejection of “the myth of the isolated mind”. The view is most explicitly elaborated in the collaboration of Stolorow, Atwood and Orange and published as *Worlds of Experience* (2002). Using Heidegger (1962) as one of the main philosophical sources of inspiration<sup>4</sup> Stolorow, Atwood and Orange base their understanding of the human condition on “a post-Cartesian contextualism that recognizes the constitutive role of relatedness in the making of all experience” (Stolorow 2004, p. 553). Here the Cartesian dualism between internal and external is challenged because the thing we experience as the external world is in reality only the product of our subjective understanding of it. Our experience is always shaped by our psychological structures “without this shaping becoming the focus of awareness and reflection” (Atwood and Stolorow 1984, p. 36). We never experience the world itself directly. The only thing we ever experience is our own interpretation of it.

Stolorow et al. call their stance *epistemological perspectivism*. It “embraces the hermeneutical axiom that all human thought involves interpretation and that therefore our understanding of anything is always from a perspective shaped and limited by the historicity of our own organizing principles” (Stolorow et al. 2002, p. 76). Following Gadamer (1991) they state that human understanding always takes place inside “our own present horizon of understanding” that is influenced by our past experiences and our own individual life histories. Every subject has subjective background structures or principles that organize and define how the world is experienced. These Stolorow et al. call *structures of subjectivity* (Stolorow and Atwood 1992, p. 2) or *organizing principles* (Stolorow et al. 2002, p. 45)<sup>5</sup>. These structures

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<sup>4</sup>Along with Heidegger, this view is inspired by the concept of *Lebenswelt* (lifeworld) of Edmund Husserl (1970), by the concept of *être-au-monde* (being-toward-the-world) of Maurice Merleau-Ponty (1962) and by Wittgenstein’s (1961, 1953, 1958) ideas of contextuality of meaning, language games and forms of life (Stolorow et al. 2002, p. 33). Also gestalt psychology, hermeneutics, postmodernism and thinking of Mikhail Bakhtin (1981) have inspired the underlying contextual thinking (Orange et al. 1997, pp. 71–73).

<sup>5</sup>They are also called the prereflectively unconscious (Atwood and Stolorow 1980) because

are not static but amount to an experiential system of expectations, interpretive patterns, and meanings (Stolorow et al. 2002, p. 45). The subject cannot be viewed apart from these structures; the subject is both the product of these structures and the organizing gestalt that produces these structures (Stolorow et al. 2002, p. 35). These structures – operating mainly outside the awareness – determine what we can feel, know and experience in particular situations (Stolorow et al. 2002, p. 45). Because different contexts awaken different patterns and possibilities of interpretation, the subjectivity itself must be seen as “thoroughly contextualized” (Stolorow et al. 2002, p. 69).

A comparison with sight might clarify the idea of perspectivism. As we look at the world we see objects: trees, computers and books, girls and boys. When the experience of sight approaches our cognitive awareness it has already gone through various prereflective filters that have organized it. The prereflective unconscious already attaches meanings and affects to these objects. It tells us which objects are worth our conscious attention and which objects we should ignore without even noticing them consciously. When looking at a crowd we immediately notice our aunt or the guy wearing the same t-shirt as we are wearing while the faces of fifty other people simply fade away and become “the rest of the crowd”. The so-called cocktail party effect provides another example of this prereflective filtering. In a noisy and crowded party we can still listen to our friend speaking and ignore the noise from other conversations around us. Still, if someone at the other side of the room mentions our name we are able to notice it immediately and are able to focus our attention on that conversation. Our prereflective unconscious already sorts out the world for us and attaches meanings to it. It is this prereflectively organized world we experience consciously, not the world itself. This is the essence of epistemological perspectivism.

Importantly, the structures of subjectivity are not formed in isolation. Instead, the development of personal experience “always takes place within an ongoing intersubjective system” (Stolorow and Atwood 1992, p. 22). “These principles, often unconscious, are the emotional conclusions a person has drawn from lifelong experience of the emotional environment, especially the complex mutual connections with early caregivers” (Orange et al. 1997, p. 7). The subject’s affect-laden social interaction is of utmost importance in the formation and continuous reformation of her world horizon. Thus the subject’s earlier experiences largely determine what interpretations are possible for her in her future experiences; how she can understand them and what they mean to her. This explains the importance of childhood as the forming time of basic interpretive patterns. A growing body of research in child development shows how “recurring patterns of intersubjective transaction within the developmental system result in the establishment of invariant principles that unconsciously organize the child’s subsequent experiences”

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of their mainly unconscious nature. The name is meant to highlight a contrast with Freud’s view of unconscious, which is significantly different. While Freud’s view exposed that Descartes’ self-conscious cogito was “a grandiose illusion”, the Freudian unconscious was still “deeply saturated with the very Cartesianism to which it posed a challenge” (Stolorow et al. 2002, pp. 39–40; see also Cavell 1993). For a throughout discussion of the fundamental difference between Freud’s unconscious and Stolorow et al.’s prereflective unconscious, see Stolorow et al. 2002, pp. 39–65.

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(Stolorow and Atwood 1992, p. 24)<sup>6</sup>. The structures of subjectivity crystallize “within the evolving interplay between the subjective worlds of child and caregiver” (Stolorow and Atwood 1992, p. 30).

In other words, the way our prereflective unconscious organizes the world for us is largely influenced by our affective experiences with our social environment. The child learns what kind of affects and meanings to attach to what kind of objects through her interaction with parents and other significant others. The child is immersed in the intersubjective system involving her and her significant others and it is inside this system that she learns to respond to her environment in a meaningful way. Our way of interpreting the world – the way we see it – is largely the result of our social interaction.

The motivational primacy of affectivity is another essential feature of the intersubjective systems theory (Stolorow 2002, p. 678; Socarides and Stolorow 1984/1985). This derives from the theoretical shift to contextualism and is part of a larger ongoing transition from drive to affectivity as the central motivational construct inside psychoanalysis, as exemplified in the works of Basch (1984), Demos and Kaplan (1986) and Jones (1995). Affects are subjective emotional experiences and they are “from birth onward regulated, or misregulated, within ongoing relational systems.” (Stolorow 2004, p. 551). Recent research has gone a long way to demonstrate that affectivity is not a product of isolated intrapsychic mechanisms; it is a property of the child-caregiver system of mutual regulation (Stolorow and Atwood 1992, p. 26; Sander 1985; Rogawski 1987; Demos 1988). Stolorow and Atwood (1992, p. 26) quote Lichtenberg (1989, p. 2) who says: “motivations arise solely from *lived experience*” and “the vitality of the motivational experience will depend . . . on the manner in which affect-laden exchanges unfold between infants and their caregivers”. To put it plainly, affects are the central motivational force inside us humans. Furthermore, these affects are formed in our interaction with other human beings.

This background gives us a new understanding of human interaction. The key feature of Stolorow et al.’s approach is to emphasize that the interplay of subjective worlds of experience is not restricted only to childhood but continues throughout the subject’s whole life. The main thesis of the intersubjective systems theory is that therapeutic interaction – as well as any direct interaction between human beings – always takes place inside an *intersubjective field*<sup>7</sup>. An intersubjective field is defined as “a system composed of differently organized, interacting subjective worlds” (Stolorow et al. 1987, p. ix). It refers to the “relational contexts in which all experience, at whatever developmental level, linguistic or prelinguistic, shared

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<sup>6</sup>The references here include Lichtenberg (1983, 1989), Sander (1985), Stern (1985), Beebe and Lachmann (1988), Emde (1988a, 1988b). As Stolorow and Atwood (1992, p. 23) themselves put it: “An impressive body of research evidence has been amassed documenting that the developing organization of the child’s experience must be seen as a property of the *child-caregiver system of mutual regulation*”.

<sup>7</sup>It must be noted that here interaction is used in a more broad sense than is usually comprehended: “The very concept of interaction needs redefinition as only one aspect of the development of emerging, organizing, and reorganizing psychological worlds” (Stolorow et al. 2002, p. 33). The influence people have on each other goes beyond what we normally understand as direct interaction and in this context interaction has to be understood in this wider sense.

or solitary, takes form” (Stolorow et al. 2002, p. 85)<sup>8</sup>. The experiential worlds have to be recognized as being “exquisitely context-sensitive and context-dependent” (Stolorow et al. 2002, p. 96). The essentially social nature of our subjective horizons ensures that a social situation involves “intersubjective reciprocity of mutual influence” (Stolorow and Atwood 1992, p. 4). Experiential worlds are “fluid and ever-shifting”, they are products both of the person’s unique intersubjective history and of “what is or is not allowed to be known within the intersubjective fields that constitute his or her current living.” (Stolorow et al. 2002, p. 47). Experiential worlds and intersubjective fields are seen as “equiprimordial, mutually constituting one another in circular fashion” (Stolorow et al. 2002, p. 96).

This view of a social interaction is essentially a systems view. The interplay in a social system has to be seen as a dynamic, ever-changing process and amounts to “an ongoing intersubjective system” (Stolorow and Atwood 1992, p. 22). Drawing from the dynamic systems theory of Thelen and Smith (1994), Stolorow et al. view a social system as the interplay of self-organizing systems (subjects) in a process that can be characterized as being messy, fluid, nonlinear, multidimensional, and context-dependent (Stolorow 1997, p. 341). “A dynamic systems account of a developmental process, whether occurring during childhood or in the psychoanalytic situation rejects teleological conceptions of preordained end-states and preprogrammed epigenetic schemas. Instead structure or pattern is seen to be *emergent* from ‘the self-organizing processes of continuously active living systems’ ” (Orange et al. 1997, p. 75; inner quote from Thelen and Smith 1994, p. 44) Thus the systems view provides “a broad philosophical and scientific net in which all the variants of contextualism in psychoanalysis can find a home” (Orange et al. 1997, p. 75). The concept of an intersubjective system “brings to focus *both* the individual’s world of inner experience *and* its embeddedness with other such worlds in a continual flow of reciprocal mutual influence.” (Stolorow and Atwood 1992, p. 18).

To summarize, in a social situation the interplay of participants’ particular subjective worlds influences the intersubjective system, which in turn influences the way the participants view the situation. A social situation always takes place inside an intersubjective system which is constituted by the ongoing process of mutual interplay of subjective worlds. The resulting change of perspective on human interaction is visualized in figure 12.1 on the following page.

*The main thesis of the intersubjective systems theory is that therapeutic interaction – as well as any direct interaction between human beings – always takes place inside an intersubjective system.*

<sup>8</sup>Remarkably, this intersubjectivity of experience is more fundamental than the experience of subjective autonomy. Developmentally, only participation in an intersubjective field creates a subject that is capable of thinking of herself as an independent unit.

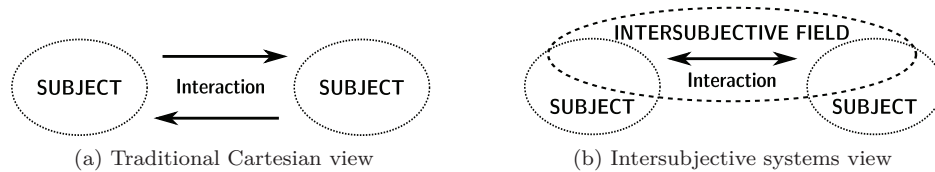


Figure 12.1: Two perspectives on human interaction.

## Key Insights from Intersubjective Systems Theory

The framework of the intersubjective systems theory shows the therapeutic situation in a new light. From our perspective the intersubjective systems theory is also fundamentally illuminating outside the therapeutic context. It strikes “very much to the core of what we approach as Systems Intelligence” (Hämäläinen and Saarinen 2007c, p. 298). IST gives powerful rationale for the contextually sensitive and non-objectual approach that is at the heart of systems intelligence.

Below are six features of the intersubjective systems theory that we propose provide fundamental insight into the reevaluation of social encounters and human interaction. We see them as formulating an essential comprehension of the intersubjective context in which we human beings act and conduct our lives.

### 1. We are embedded in systems through and through

Firstly and most importantly, human beings – including therapists – can never step outside their own experiential world or the intersubjective system they are embedded in. Our ‘experiential repertoire’ or horizon of experience is always partly defined and redefined by the intersubjective system we are currently embedded in. “What you believe is the system, is the system for you” Hämäläinen and Saarinen (2007a, p. 31) state, and intersubjectivity largely defines what you can believe the system to be. No longer can the analyst simply be seen as facilitating or manipulating the process of a psychoanalytic situation from the outside. Instead the analyst and the patient form an indissoluble intersubjective system, in which the analyst’s own subjective experiential world plays a crucial part. The impact of the analyst has to be seen “from a perspective *within* rather than outside the patient’s subjective frame of reference” (Stolorow and Atwood 1992, p. 93). In the same manner in any human interaction we have to see ourselves as not standing outside the system but being immersed into it. As we meet another human being, an intersubjective system emerges between us and that system has an immense if largely overlooked effect on our thinking, behavior and on how we conceive the situation.

The intersubjective systems theory thus breaks free from the assumption that the encounter between two human beings could be viewed from an objective God’s-eye perspective. The analyst as well as the patient are interwoven in the intersubjective system and operate always from a *within*-perspective rather

than from any external or objective perspective<sup>9</sup>. This *within*-perspective of the therapeutic situation “presumes neither that the analyst’s subjective reality is more true than the patient’s nor that the analyst can directly know the subjective reality of the patient; the analyst can only approximate the patient’s subjective reality from within the particularized and delimited horizons of the analyst’s own perspective” (Stolorow et al. 2002, p. 103). There is no “objective reality that is known by the analyst and distorted by the patient” (Stolorow and Atwood 1992, p. 91). The analyst is not the possessor of ‘right’ information about the situation as all psychoanalytic understanding has to be seen as hermeneutic, perspectival, and thus fallible (Stolorow 2004, p. 553).

What holds true for analysts – who are usually much more reflectively aware of their own participation in the system compared to laypeople – holds even more true for other human beings. “Once apparently fixed, systems generate a feeling of being overwhelming and in charge, extending their power to a vast array of microbehaviours” (Hämäläinen and Saarinen 2007a, p. 15). Therefore we should be more aware of our own participation in the system and influence upon it (Stolorow et al. 2002, p. 35). We are trapped inside the intersubjective system and should recognize the limiting effect it has on our understanding of the situation and the possibilities for action open in it.

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Awareness of our embeddedness inside the intersubjective system and our own participation in the process of creating it is thus the first key contribution of the intersubjective systems theory. The lack of an objective perspective on the interaction shifts the focus to the subjective understanding of it. We have to be sensitive to the unique intersubjective system in which we have to operate. “Thinking contextually means ongoing sensitivity and relentless attention to a multiplicity of contexts – developmental, relational, gender-related, cultural, and so on” (Stolorow et al. 2002, p. 84). Because our understanding of the situation is always partial and subjectively biased, we have to be constantly aware of our own limitations and remain flexible in our thinking in order to allow new perspectives on the situation to emerge and to manifest themselves.

## 2. Shift from a cognitive perspective to an affective perspective

The intersubjective systems theory also demands that the affective nature of any social encounter should not be ignored but instead it should be addressed and utilized. In therapy, the therapeutic impact of the analyst’s interpretations lies “not only in the insights they convey but also in the extent to which they demonstrate the analyst’s attunement to the patient’s affective states” (Stolorow 1997, p. 343).

<sup>9</sup>See Shotter (2006) for an intriguing discussion about thinking-from-within in another context.

Stolorow (1997, p. 343) states as his belief “that once the psychoanalytic situation is recognized as an intersubjective system, the dichotomy between insight through interpretation and affective bonding with the analyst is revealed to be a false one.” Affect and cognition are seen as indissolubly united in lived experience, and their separation from one another is conceived to be a remnant of the Cartesian dualism.

A major asset of the analyst is the *intersubjective clinical sensitivity* that requires the empathic connection, ‘undergoing the situation’ (Gadamer 1991) with the other (Stolorow et al. 2002, p. 118). The analyst’s interpretation of the situation is not a neutral tool but has already an affective impact on the intersubjective system between the analyst and the patient. “A good (that is, a mutative) interpretation is a relational process, a central constituent of which is the patient’s experience of having his or her feelings understood” (Stolorow et al. 2002, p. 15; see also Stolorow et al. 1978). All actions of the analyst – also the seemingly neutral ones – contribute to the affective nature of the system and thus create new options and fresh openings that are possible in that particular therapeutic situation.

The same holds true in any encounter between human beings. For example in organizational settings we easily tend to focus on the cognitive aspects of our interaction; what we actually say or do. In so doing we overlook the rich affective currencies that are always at play under the seemingly neutral surface level and that are potentially highly useful. An affective revolution within the field of organizational behavior is called for (Barsade et al. 2003). As Hämäläinen and Saarinen emphasize, successful leadership is often more about *how* you say something than about *what* you say. Adopting a systems intelligence perspective to leadership means taking seriously the “human dimension” – the subjective human life, with its immensely rich world of emotions, inner subtleties and relations-sensibilities – and giving them top priority instead of focusing only to cognitive and measurable parameters of an organization (Hämäläinen and Saarinen 2007a, pp. 20–21). Whatever the context, the affective dimension of any human interaction should be given the emphasis that it truly deserves.

*“Thinking contextually means ongoing sensitivity and relentless attention to a multiplicity of contexts – developmental, relational, gender-related, cultural, and so on” (Stolorow et al. 2002, p. 84).*

### 3. Shift of focus to an *empathic-introspective inquiry*

Stolorow et al. (2002, p. 106) state that “we analysts also seem to participate in a common human propensity to see one’s own perspective as the measure of truth and rather automatically to judge those with whom we disagree as unrealistic and misguided.” But given the non-existence of an objective perspective we should not be so eager to evaluate, classify or judge the other. Instead, our emphasis should always be on understanding the other. In therapeutic systems this means that “the foundations of a therapeutic alliance are established by the analyst’s commitment to seek consistently to comprehend the meaning of the patient’s

expressions” and her affect states from a perspective within the intersubjective system (Stolorow and Atwood 1992, p. 93). Analyst should not ask what is wrong with the patient but rather what her personal world is like (Stolorow et al. 2002, p. 38). Stolorow et al. call this the ‘sustained empathic-introspective inquiry’. It is our view that this is a perspective that should be widely acknowledged. Arguably it is a key to flourishing social encounters (see for example Isaacs 1999 and Senge’s (1994, p. 198) distinction between inquiry versus advocacy mode for a parallel developments).

In sustained empathic inquiry, understanding another person is not a product of entering that person’s mind, cataloging its mental furniture (like ideas, affects and fantasies) and writing a case report. “Rather, in the only conception of ‘empathic immersion’ that makes sense in post-Cartesian thinking, the participants in the conversation (two or more) immerse themselves in the interplay of personal worlds of experience” (Stolorow et al. 2002, p. 37). Stolorow et al. see that this open attitude to the other is not only a consequence of certain theoretical commitments but more the result of general human skills: “The tendency to open rather than to foreclose conversation about meanings may be the most reliable marker of world-oriented psychoanalytic thinking, no matter what the clinician’s original training” (Stolorow et al. 2002, p. 36). The central figure of philosophical hermeneutics, Hans-Georg Gadamer, eloquently captures this idea of what true understanding of another human being requires: “The person with understanding does not know and judge as one who stands apart and unaffected; but rather, as one united by a specific bond with the other, he thinks with the other and undergoes the situation with him” (Gadamer 1991, p. 288, quoted in Orange et al. 1997, p. 27).

When we meet other human beings, we should always seek to understand them on their own terms; see the world through their eyes, rather than categorize them using our own pre-existing categories. Giving up on our own perspective and immersing us for the moment into the perspective of another is a prerequisite for really starting to understand one another. Understanding is a process where also our own perspective evolves – a key point Gadamer emphasizes (in for example Gadamer 1994, pp. 44–46). It is only through this kind of striving that a true understanding of the other can emerge. And it is only through mutual understanding of each other that the social encounter can begin to flourish and create positive spirals and “deviation-amplifying loops” (Lindsley et al. 1995).

#### **4. A process view on the intersubjective system**

Stolorow et al. view the psychoanalytic encounter from a process viewpoint where all influencing is embedded in the mutually constituted process that is the intersubjective system. “Clinically, we find ourselves, our patients, and our psychoanalytic work always embedded in constitutive *process*.” (Stolorow et al. 2002, p. 83). This perspective on the process is equally valid for any kind of encounter between human beings.

A social encounter is a process where the participants, the intersubjective system and the participants’ understanding of the system are constantly evolving in an interrelated manner. The change in the intersubjective system or in the participant’s subjective world is co-constituted. It is not the result of one-sided

or ping-pong-like turn-taking interventions. “Central to the process of transformation is the understanding of the ways in which the patient’s experience of the analytic dialogue is *codetermined* throughout by the organizing activities of *both* participants. The patient’s unconscious structuring activity is discernible in the distinctively personal *meanings* that the analyst’s activities – and especially his interpretive activity – repeatedly and invariantly come to acquire for the patient.” (Stolorow and Atwood 1992, p. 96.) The potential change always happens ‘from within’ the process.

The process view also opposes any snapshot views of the social encounter. Emphasizing the temporal perspective, it “affirms the emotional life of people who have come from somewhere and are going somewhere” (Stolorow et al. 2002, p. 83). The present moment cannot be isolated from the historical-developmental and cross-sectional contexts or dimensions. Thus serious attention to their interpretation must be accorded (Stolorow et al. 2002, p. 83). An ongoing sensitivity for the developmental, relational, gender-related, cultural and other relevant context factors is therefore called for (Orange et al. 1997, p. 78).

In a social system we are therefore participating in a complex and multidimensional, ever-evolving process. Through the participants’ subjective worlds and mental patterns their whole history and possible futures have a role in this process as well.

## 5. Positive change through the expansion of subjective worlds

In Stolorow and Atwood’s view, successful psychoanalytic treatment “does not produce therapeutic change by altering or eliminating the patient’s invariant organizing principles. Rather, through new relational experiences with the analyst in concert with enhancements of the patient’s capacity for reflective self-awareness, it facilitates the establishment and consolidation of alternative principles and thereby enlarges the patient’s experiential repertoire” (Stolorow and Atwood 1992, p. 25).

The crucial source of change is therefore the expansion of the horizon of *both* the patient *and* the analyst. Expanding the analyst’s theoretical horizons is important because it “will have a salutary impact on therapeutic outcome, to the degree that such expansion enhances the analyst’s capacity to grasp features of the patient’s experiential world hitherto obscured” (Stolorow et al. 2002, p. 65). Still more importantly, expanding the patient’s experiential horizon is one of the central aims of psychoanalysis according to Stolorow et al. (2002, p. 46). The patients’ problems are to a large degree the result of limiting world horizons, of disclosure and hiddenness (Stolorow et al. 2002, pp. 49–50). By expanding the patients’ experiential horizons the analyst opens up the “possibility of an enriched, more complex, and more flexible emotional life” (Stolorow et al. 2002, p. 46). The process of expanding the patient’s experiential world is thus a central feature in a systems view of therapeutic change.

There is a lesson to be learned from this also outside the therapeutic settings. As a rule, the expansion of the subjective world is something we all should aim at in our everyday encounters with other human beings in order to enrich those encounters. All of them involve unique subjective worlds and through the

process of empathic-introspective inquiry described earlier we can expand our own subjective understanding of the world by trying to accommodate these different perspectives. An enriched, more complex, and more flexible emotional life is a goal worth striving for. This applies to everyone, not just people in therapy.

## **6. Influencing human systems is a matter of practical wisdom rather than a matter of a right technique**

In addition to these general insights, Stolorow et al. have many groundbreaking ideas that concern therapeutic practice. Of these the most important is a critique of the psychoanalytic practice seen as a technique. According to Orange et al. (1997, p. 19) Freud and his followers have misunderstood psychoanalytic practice to be an exact science and a technique. Underlying both of these mistakes is the mistaken assumption that all relevant variables can be controlled. Instead Orange et al. (1997, p. 19) hold that “the realm of the mental is thoroughly incomplete, indefinite, and open.” Therefore making successful interventions to a human system is rarely a matter of applying a predetermined technique. Instead the uniqueness of every human system implies that the best way to succeed in these complex systems is to apply the *practical wisdom* you have acquired through previous social encounters.

The problem with relying too much on a technique is the fact that the “primary purpose of the rules of any technique is to induce compliance, to reduce the influence of individual subjectivity on the task at hand” (Orange et al. 1997, p. 23). Given the particularity and uniqueness of every social encounter this unnecessarily limits the space of possibilities available to the agent. Techniques can aid us in focusing on the right approach in a social encounter but they should not be pushed too far.

*“The realm of the mental is thoroughly incomplete, indefinite, and open” (Orange et al. 1997, p. 19).*

In the place of technique-oriented thinking Orange et al. propose that influencing other people and human systems should be viewed as a kind of *phronesis* or practical wisdom in the Aristotelian sense (Orange et al. 1997, p. 27). Practice – and not technique – “is characteristic of work with human beings with minds” (Orange et al. 1997, p. 27). In Aristotelian practical reasoning it is impossible to know in advance the right means to any end. The ends and goals emerge only in the ‘acting situation’. (Orange et al. 1997, p. 26.) As social encounters are always unique the general rules only tend to impede the understanding of them (Orange et al. 1997, p. 32).

Freed from the shackles of a limiting technique, analysts are able to grasp the situation in all of its complexities and idiosyncrasies. “We point to the possibility of an emancipation of analysts in both their thinking and their practice, a freeing that would enable them to use the full resources of their creativity in the tasks of psychoanalytic exploration and treatment” (Orange et al. 1997, p. 89; Lindon 1994). The same holds true for anyone who has to work with and influence other human beings. Management and leadership literature is full of various fads promising that through the technique they offer various beneficial

outcomes can be generated. However, too onesided reliance on any one technique is likely to cause more harm than good because of the delimiting effect it has on manager's creativity and practical wisdom (see Mintzberg et al. 1998), or ability to launch a systems intelligent intervention in the sense of Hämäläinen and Saarinen (2007a). Taking seriously the complexity of any human system means giving up the possibility of controlling it fully with any one technique or even a set of techniques. Instead the emphasis should be placed on practical wisdom, on the human ability to act intelligently in situations that are too complex to be covered by any one perspective.

### From Intersubjective Systems Theory to Systems Intelligence

Systems intelligence operates on the assumption that social encounters can be meaningfully conceptualized as systems. Only then it makes sense to suppose that we indeed have something called *systems* intelligence that is in operation in our encounters with other human beings.

Here the intersubjective systems theory is illuminating. It provides us a systems understanding of immediate social encounters; a sophisticated theory of how we are deeply embedded in the intersubjective system that is co-constructed every time two or more human beings meet. In so doing it provides a feasible background rationale for systems intelligence. If social encounters are of the complex and embedded kind that Stolorow et al. suggest, it is natural that during the course of human development we would have developed *a skill to cope* with such fundamental systems. Humans are essentially social animals. Before language, reflection or technical rationality they were already embedded in social systems in which they had to operate. As Hämäläinen and Saarinen (2007a, p. 4) put it: "before anything else, there was already action, there was a context, something was already taking place." During our evolutionary history we humans have always been embedded in immediate social systems. Evolutionary success in that kind of social environment requires a keen sensibility for the social system. That is exactly what systems intelligence highlights and aims to conceptualize.

In understanding intersubjective systems theory we therefore come to see the importance of systems intelligence. If the human systems really are as complex and interdependent and if we really are embedded in them in the way that the theory of Stolorow, Atwood and Orange claims, we surely need to rely heavily on something like systems intelligence to cope with our everyday life. Consciously rational and objectifying, verbalized and explicit linear thinking simply does not provide us with tools that enable us to act productively enough in such situations. Hämäläinen and Saarinen (2007b, p. 39) capture the challenge intersubjective systems theory represents to us when they ask: "Suppose the veil of uncertainty is to stay. Suppose you have to act, without knowing what your choices ultimately amount to. Suppose you are in a situation where external forces are at play, influences mover hither and thither, the future is uncertain, and still you have to act." Systems intelligence perspective describes the intelligence we naturally have and which allows us to act in the epistemically opaque complex social systems we

are continuously embedded in. Systems intelligence is about engaging successfully and productively within the social systems as they emerge (Hämäläinen and Saarinen 2006, p. 191). It is a form of intelligence we must have in order to survive and succeed in our everyday life which is deeply embedded in a multitude of different intersubjective systems.

Central to intersubjective systems theory is the idea of a prereflective unconscious that delivers the world to us loaded with meanings. Systems intelligence taps this realm. For instance, prereflective unconscious is what gives us the ‘feel’ of a situation, feeding our systems intelligence vis-à-vis that situation. Entering a room where a group of people is chatting we immediately get a feeling of the mood of the social situation unfolding there. Here prereflective unconscious is at operation and serving our systems intelligence skills. Immediately immersing itself in the intersubjective system of a social situation the prereflective unconscious is able to grasp the intersubjective currents at play in all their nuances. Thus it is able to give us preverbal and prerational ‘knowledge’ or rather know-how of the situation. Without us acknowledging it, certain systemic possibilities open themselves up to our conscious consideration and certain others are closed. Outside our awareness the prereflective unconscious tunes in to the mood of the social system thus deciding what modes of being are appropriate in this particular intersubjective system. I hear a hilarious joke in a party and in an uplifting mood enter another room to tell it to my girlfriend and her friends. Immediately at the doorstep, however, the serious look on their faces tell me that it is not a time for joke. In a twinkle – and without making a conscious decision about it – my mood changes to a more serious and inquiring one to better respond to the intersubjective system I just immersed myself into. I may have already forgotten the joke I was so eager to tell only a second before. Being sensitive to this instinctual awareness of the situation and utilizing the gained know-how in our practical decision-making is systems intelligence. It is “intelligence-as-embedded-in-action and with respect to the situation, context, environment, locality” (Hämäläinen and Saarinen 2007a, p. 40).

Systems intelligence puts the emphasis on what we already do right and what we could do more of in the systemic settings (Hämäläinen and Saarinen 2006, p. 192). Having a lifelong experience of these intersubjective systems we all are armed with a keen sensibility of what kind of behavior might be appropriate in any given situation, a sort of *procedural* knowledge (see Fosshage 2005). In other words, we are in fact already operating with systems intelligence. We are out there forming the various human relations with the systemic situation at hand. Inside psychoanalytic tradition, Wilma Bucci (1997, p. 158) captures this dimension beautifully when she writes that “the analyst perceives and responds to his patient on multiple, continuous dimensions, including some that are not explicitly identified. The analyst is able to make fine distinctions among a patient’s states . . . without being able to express those feelings in words.” In other words, the analyst does have an ability to sense and experience the subtleties of the system at hand. Similarly, following the affective and preverbal instincts – gut feelings, if you wish – our actions are often intelligently facilitating the system into the right direction without us necessarily being fully aware of these actions or their rationale. The idea of systems intelligence is “to connect more actively,

sensitively and lively” with this competence we already possess (Hämäläinen and Saarinen 2007a, p. 23).

Systems intelligence thus complements intersubjective systems theory in connecting its vital new perspective on social encounters with a theory of how to act in them. But IST returns the compliment by enhancing our systems intelligence. Intersubjective systems theory is best understood as being a metatheory, a conceptually empowering sensibility that informs our thinking and acting in social situations (Orange et al. 1997, p. 88). Instead of giving us ready-made techniques to use in our day-to-day interaction with fellow human beings it merely teaches us to look at our immediate social environment with open and creative eyes. In this context systems intelligence can be seen as an attitude that adopts the IST perspective and focuses on the potential it has for acting more intelligently in the social encounters of our everyday life. It complements IST by showing how we have an ability to sense our way in these complex social systems and urges us to ride on this capacity. At the same time the perspective of IST makes us more aware of the systemic nature of our social environment. We become more sensitive to the subtleties of any particular system and therefore can sense more pathways to positive outcomes in that system. By looking at the world through the glasses of IST we are more sensitive to the systemic potentials inherent in the situation and therefore more able to act with greater systems intelligence.

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of a social situation the  
prereflective  
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nuances. Thus it is able  
to give us preverbal and  
prerational ‘knowledge’  
or rather know-how of  
the situation.*

## Conclusion

Systems intelligence is about the ability to act intelligently in systems we are embedded in. Of focal importance is here the system which we all encounter everyday – that between two or more human beings. To understand what kind of system this is, we need a theory of the human system. As we see it, intersubjective systems theory provides key steps to that effect. It presents a remarkably apt background theory for the systems intelligence approach. As a result, the two frameworks become connected in at least two important ways: systems intelligence is able to provide IST with a theory of how to act in intersubjective social situations, while adopting Intersubjective Systems Theory makes us more aware of the subtleties of the context and thus open possibilities for us to become more systems intelligent.

One particularly valuable aspect of the intersubjective systems theory is its perspectivism; the view that all human thought involves interpretation. Our understanding is always limited by our own horizon of understanding. A neutral point of view simply does not exist for human beings; we experience the world as

interpreted by our subjectivity and by our prereflective unconsciousness. Next piece in the puzzle is intersubjectivity: psychological phenomena should not be understood as products of isolated mechanisms inside individual minds, but as emerging from the interface of reciprocally interacting subjectivities. Psychological phenomena can only be understood as part of the intersubjective contexts in which they take form.

Combining perspectivism and intersubjectivity leads to a systems view on immediate social encounters. All human interaction takes place inside an intersubjective system which is constituted by the ongoing process of mutual interplay of subjective worlds. This recognition of social encounter “as a dyadic intersubjective system of reciprocal mutual influence, to which the organizing activities of both participants make ongoing, codetermining contributions” (Orange et al. 1997, p. 43) is truly revolutionary for any implicitly Cartesian framework. Among other things, it addresses seriously the affect-laden nature of human interaction, its reciprocity, complexity and intersubjectivity. It enables us to see a social encounter as a mutually created and unfolding system that to a large extent operates outside of our cognitive-rational awareness. The intersubjective systems theory thus highlights the importance of our sensibilities and our multi-faceted endowment that enables us to live out the subtle, contextual and crucially important aspects of the social encounter. Adopting the intersubjective systems perspective on social situations we encounter makes us responsive to the subtle aspects of situations, and thus paves the way to acting with greater systems intelligence in those situations.

On the other hand, understanding social encounters through intersubjective systems theory paves the way for understanding the paramount importance of systems intelligence in our everyday life. Systems intelligence as the ability to move ahead with sensitivity and on-the-fly adaptability vis-à-vis the system that is emerging is centrally important in social environments which are too multidimensional to be captured by the actor’s objectival or narrowly rational mind. Central to systems intelligence is the conviction that we already have such an ability and that this ability is not dependent on anybody being able to articulate or formulate what that ability amounts to. When embedded in complex social systems we are endowed with competences to sense the situation beyond words and beyond conscious representations. We feel our way forward. Systems intelligence celebrates this capacity and encourages us to foster it more, as does in its own way the intersubjective systems theory<sup>10</sup>.

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## References

- ARON, LEWIS. (1996). *A meeting of minds: Mutuality in psychoanalysis*. Analytic Press, Hillsdale, NJ.
- ATWOOD, GEORGE, AND ROBERT D. STOLOROW. (1980). Psychoanalytic concepts and the representational world. *Psychoanalysis and Contemporary Thought*, vol. 3: pp. 267–290.
- ATWOOD, GEORGE, AND ROBERT D. STOLOROW. (1984). *Structures of subjectivity: Explorations in psychoanalytic phenomenology*. Hillsdale, NJ: The Analytic Press.
- BAKHTIN, MICHAEL. (1981). *The dialogic imagination*. Austin: University of Texas Press.
- BARSADE, SIGAL G., ARTHUR P. BRIEF, AND SANDRA E. SPATARO. (2003). The affective revolution in organizational behavior: The emergence of a paradigm. In *Organizational behavior: The state of the science* (2nd ed.), edited by Jerry Greenberg: pp. 3–52. Hillsdale, NJ: J Erlbaum Associates.
- BASCH, MICHAEL F. (1984). Selfobjects and selfobject transference. In *Kohut's legacy*, eds. P. Stepansky and A. Goldberg: pp. 21–41. Hillsdale, NJ: The Analytic Press.
- BEEBE, BEATRICE, AND F. LACHMANN. (1988). The contribution of mother-infant mutual influence to the origins of self- and object-representations. *Psychoanalytic Psychology*, vol. 5: pp. 305–337.
- BEEBE, BEATRICE, AND F. LACHMANN. (2003). The relational turn in psychoanalysis: A dyadic systems view from infant research. *Contemporary Psychoanalysis*, vol. 39 (no. 3): pp. 379–409.
- BEEBE, BEATRICE, STEVEN KNOBLAUCH, JUDITH RUSTIN, AND DORIENNE SORTER. (2003). Introduction: A systems view. *Psychoanalytic Dialogues*, vol. 16: pp. 743–775.
- BOSTON CHANGE PROCESS STUDY GROUP. (2003). Explicating the implicit: The local level and the microprocess of change in the analytic situation. *International Journal of Psychoanalysis*, vol. 83: pp. 1051–1062.
- BUCCI, WILMA. (1997). Patterns of discourse in ‘good’ and troubled hours: A multiple code interpretation. *Journal of the American Psychoanalytic Association*, vol. 45: pp. 155–187.
- CAVELL, MARCIA. (1991). The subject of mind. *International Journal of Psycho-analysis*, vol. 72: pp. 141–153.
- CAVELL, MARCIA. (1993). *The psychoanalytic mind: From Freud to philosophy*. Cambridge: Harvard University Press.
- DEMOS, E. VIRGINIA. (1988). Affect and the development of the self. In *Frontiers in self psychology: Progress in self psychology*, vol. 4., ed. A. Goldberg: pp. 27–53. Hillsdale, NJ: The Analytic Press.
- DEMOS, E. VIRGINIA., AND SAMUEL KAPLAN. (1986). Motivation and affect reconsidered. *Psychoanalysis and Contemporary Thought*, vol. 9: pp. 147–221.
- EMDE, ROBERT N. (1988a). Development terminable and interminable: I. *International Journal of Psycho-Analysis*, vol. 69: pp. 23–42.

- EMDE, ROBERT N. (1988b). Development terminable and interminable: II. *International Journal of Psycho-Analysis*, vol. 69: pp. 283–296.
- FOGEL, ALAN. (1993). *Developing through relationships*. Chicago: University of Chicago Press.
- FOSSHAGE, JAMES L. (2005). The explicit and implicit domains in psychoanalytic change. *Psychoanalytic Inquiry*, vol. 25 (no. 4): pp. 516–539.
- GADAMER, HANS-GEORG. (1991). *Truth and method* (2nd ed.). Translated by J. Weinsheimer and D. Marshall. New York: Crossroads.
- GADAMER, HANS-GEORG. (1994). What is truth? Translated by Brice R. Wachterhauser. In *Hermeneutics and truth*, ed. Brice R. Wachterhauser. Evanston, IL: Northwestern University Press.
- HÄMÄLÄINEN, RAIMO P., AND ESA SAARINEN. (2006). Systems intelligence: A key competence in organizational life. *Reflections – The SoL Journal on Knowledge, Learning and Change*, vol. 4: pp. 191–201.
- HÄMÄLÄINEN, RAIMO P., AND ESA SAARINEN. (2007a). Systems intelligent leadership. In *Systems intelligence in leadership and everyday life*, eds. Raimo P. Hämmäläinen and Esa Saarinen: pp. 3–38. Espoo: Helsinki University of Technology, Systems Analysis Laboratory.
- HÄMÄLÄINEN, RAIMO P., AND ESA SAARINEN. (2007b). Systems intelligence: A key competence in organizational life. In *Systems intelligence in leadership and everyday life*, eds. Raimo P. Hämmäläinen and Esa Saarinen: pp. 39–50. Espoo: Helsinki University of Technology, Systems Analysis Laboratory.
- HÄMÄLÄINEN, RAIMO P., AND ESA SAARINEN. (2007c). The way forward with systems intelligence. In *Systems intelligence in leadership and everyday life*, eds. Raimo P. Hämmäläinen and Esa Saarinen: pp. 295–306. Espoo: Helsinki University of Technology, Systems Analysis Laboratory.
- HEIDEGGER, MARTIN. (1962/1927). *Being and time*. Translated by J. Macquarrie and E. Robinson. New York: Harper and Row.
- HOFFMAN, IRWIN Z. (1998). *Ritual and spontaneity in the psychoanalytic process: A dialectical-constructivist view*. Hillsdale, NJ: The Analytic Press.
- HUSSERL, EDMUND. (1970). *The crisis of European sciences and transcendental phenomenology*. Translated by D. Carr. Evanston, IL: Northwestern University Press.
- ISAACS, WILLIAM. (1999). *Dialogue and the art of thinking together*. New York: Doubleday.
- JONES, JOSEPH M. (1995). *Affects as process: An inquiry into the centrality of affect in psychological life*. Hillsdale, NJ: The Analytic Press.
- KOHUT, HEINZ. (1959). Introspection, empathy, and psychoanalysis. In *The search for the self, vol. 1.*, ed. P. Ornstein: pp. 205–232. Madison, CT: International University Press.
- LICHTENBERG, JOSEPH D. (1989). *Psychoanalysis and motivation*. Hillsdale, NJ: The Analytic Press.
- LINDON, JOHN. (1994). Gratification and provision in psychoanalysis: Should we get rid of ‘the rule of abstinence?’ *Psychoanalytic Dialogues*, vol. 4: pp. 549–582.
- LINDSLEY, DANA H., DANIEL J. BRASS, AND JAMES B. THOMAS. (1995).

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- Efficacy-performance spirals: A multilevel perspective. *Academy of Management Review*, vol. 20 (no. 3): pp. 645–678.
- MARTELA, MIKKO, AND ESA SAARINEN. (2008). *Overcoming the objectifying bias implicit in therapeutic practice – Intersubjective Systems Theory complemented with Systems Intelligence*. Article manuscript 24 July 2008.
- MERLEAU-PONTY, MAURICE. (1962). *The phenomenology of human perception*. New York: Humanities Press.
- MINTZBERG, HENRY, BRUCE AHLSTRAND, AND JOSEPH LAMPEL. (1998). *Strategy safari – A guided tour through the wilds of strategic management*. New York: The Free Press.
- MITCHELL, STEPHEN A. (1988). *Relational concepts in psychoanalysis: An integration*. Cambridge: Harvard University Press.
- ORANGE, DONNA M. (1995). *Emotional understanding: Studies in psychoanalytic epistemology*. New York: The Guilford Press.
- ORANGE, DONNA M., GEORGE E. ATWOOD, AND ROBERT D. STOLOROW. (1997). *Working intersubjectively – Contextualism in psychoanalytic practice*. Hillsdale, NJ: The Analytic Press.
- REESE, HAYNE W., AND WILLIS F. OVERTON. (1970). Models of development and theories of development. In *Life-span developmental psychology*, eds. L. Goulet and P. Baltes. New York: Academic Press.
- ROGAWSKI, ALEXANDER S. (1987). A systems theoretical approach to the understanding of emotions. *Journal of the American Academy of Psychoanalysis*, vol. 15: pp. 133–151.
- RORTY, RICHARD. (1999). *Philosophy and social hope*. London: Penguin Books.
- SAARINEN, ESA, AND RAIMO P. HÄMÄLÄINEN. (2004). Systems intelligence: Connecting engineering thinking with human sensitivity. In *Systems intelligence – Discovering a hidden competence in human action and organizational life*, eds. Hämäläinen R. P. and Saarinen E.: pp. 9–37. Espoo: Helsinki University of Technology, Systems Analysis Laboratory Research Reports A88.
- SANDER, LOUIS. (1985). Toward a logic of organization in psycho-biological development. In *Biologic response styles*, eds. H. Klar and L. Siever: pp. 20–36. Washington, DC: American Psychiatric Association.
- SANDER, LOUIS. (1991). *Recognition process: Specificity and organization in early human development*. Paper presented at the University of Massachusetts conference, The Psychic Life of the Infant.
- SENGE, PETER. (1994). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday Currency.
- SHOTTER, JOHN. (2006). Understanding process from within: An argument for ‘withness’-thinking. *Organizational Studies*, vol. 27 (no. 4): pp. 585–604.
- SILVERMAN, DORIS K. (1994). From philosophy to poetry: Changes in psychoanalytic discourse. *Psychoanalytic Dialogues*, vol. 4: pp. 101–128.
- SILVERMAN, DORIS K. (1999). Bridging natural science and hermeneutics: An oxymoron or a conjunction? *Psychoanalytic Dialogues*, vol. 9: pp. 597–608.

- SOCARIDES, DAPHNE D., AND ROBERT D. STOLOROW. (1985/1984). Affects and selfobjects. *The Annual of Psychoanalysis*, vol. 12/13: pp.105–119.
- STERN, DANIEL N. (1985). *The interpersonal world of the infant*. New York: Basic Books.
- STERN, DANIEL N. (2004). *The present moment in psychotherapy and everyday life*. Norton.
- STERN, DANIEL N., LOUIS W. SANDER, JEREMY P. NAHUM, ALEXANDRA M. HARRISON, KARLEN LYONS-RUTH, ALEXANDER C. MORGAN, NADIA BRUSCHWEILER-STERN, AND EDWARD Z. TRONIC. (1998). Non-interpretive mechanisms in psychoanalytic therapy. The ‘something more’ than interpretation. *International Journal of Psychoanalysis*, vol. 79: pp.903–921.
- STOLOROW, ROBERT D. (1997). Dynamic, dyadic, intersubjective systems: An evolving paradigm for psychoanalysis. *Psychoanalytic Psychology*, vol. 14 (no. 3): pp.337–346.
- STOLOROW, ROBERT D. (2002). Impasse, affectivity, and intersubjective systems. *Psychoanalytic Review*, vol. 89 (no. 3): pp. 329–337.
- STOLOROW, ROBERT D. (2004). Autobiographical reflections on the intersubjective history of an intersubjective perspective in psychoanalysis. *Psychoanalytic Inquiry*, vol. 24: pp.542–557.
- STOLOROW, ROBERT D., AND GEORGE E. ATWOOD. (1992). *Contexts of being – The intersubjective foundations of psychological life*. Hillsdale, NJ: Analytic Press.
- STOLOROW, ROBERT D., GEORGE E. ATWOOD, AND DONNA M. ORANGE. (2002). *Worlds of experience: Interweaving philosophical and clinical dimensions in psychoanalysis*. New York: Basic Books.
- STOLOROW, ROBERT D., GEORGE E. ATWOOD, AND J. M. ROSS. (1978). The representational world in psychoanalytic therapy. *International Review of Psycho-Analysis*, vol. 5: pp.247–256.
- STOLOROW, ROBERT D., BERNARD BRANDCHAFT, AND GEORGE ATWOOD. (1987). *Psychoanalytic treatment: An intersubjective approach*. Hillsdale, NJ: Analytic Press.
- TAYLOR, CHARLES (1994). *Sources of the self: The making of modern identity. dynamic systems approach to the development of cognition and action*. Cambridge: Harvard University Press.
- THELEN, ESTHER, AND LINDA B. SMITH. (1994). *A dynamic systems approach to the development of cognition and action*. Cambridge: MIT Press.
- WITTGENSTEIN, LUDWIG. (1953). *Philosophical investigations*. New York: MacMillan.
- WITTGENSTEIN, LUDWIG. (1958). *The blue and brown books: Preliminary studies for the ‘philosophical investigations’*. New York: Harper and Row.
- WITTGENSTEIN, LUDWIG. (1961). *Tractatus logico-philosophicus*. Atlantic Highlands, NJ: Humanities Press.

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