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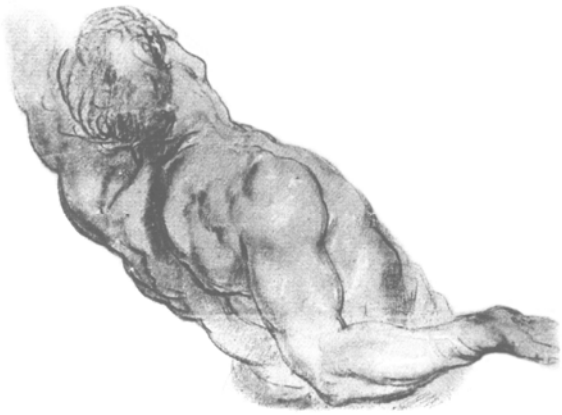

USABP Mission Statement
The USABP believes that integration of the body and the mind is essential to effective psychotherapy, and to that end its mission is to develop and advance the art, science, and practice of body psychotherapy in a professional, ethical, and caring manner in order to promote the health and welfare of humanity.

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In my introduction to the last issue of this Journal I posed the question, "What if anything do we know and how do we know it?" In that issue, this question was grappled with through the fields of neuroscience, genomics, and pre- and peri-natal psychology. In this issue, John May critically evaluates the body psychotherapy literature from a novel and imaginative point of view, using Kurosawa's classic film, "Rashomon" as a template of inquiry. He explores the problem of belief, asking what is subjectivity, what is truth? How is the clinician to evaluate the conflicting claims put forth in the body psychotherapy literature? He discusses four types of narratives frequently found in tautological relationship to each other in much of somatic psychological literature: the clinical story, the life story, the therapeutic story, and the theory. The loose relationship between theory and evidence, he shows, leads to "wild assertions", of which he gives many examples. In conclusion, he recommends that in order to escape from our place under the Rashomon Gate, we must support our work on a three-legged stool, supported by introspection, observation of clients, and research evidence.

In the current issue of *The New York Review of Books* (March 24, 2005, pp.34-36), Oliver Sacks, in a touching memoir of his long and mutually inspiring relationship with Francis Crick entitled "Remembering Francis Crick", quotes him as saying in the early 1960's that "understanding the relation of brain and mind – in particular the biological basis of consciousness, was one of the two or three great enterprises to be embarked upon in the near future.

In the second of three reviews of the neuroscience literature, Aline LaPierre continues to explore the relevance of the findings of "that great enterprise" to the practice of body psychotherapy. Some of the themes she pursues in this installment are:

- Emotions as cognitions of bodily states and organizers of behavior, as well as virtually every type of information the brain can encode.
- The importance of the mother (primary care giver) as regulator of the infant's arousal states and genetic expression leading to self-regulation.
- Development as an interactive series of reorganizations within hierarchies, feedback loops and evolutionary layers which allow for increased complexity, stability and adaptivity.
- The brain as a dynamic, embodied process.
- The significance of the existence of implicit, procedural memory, comprising internal working models of attachment and emotional social information in place long before explicit memory comes online around 18 months.
- The importance of positive affects especially in early development as the key to growth supporting psychological states and physical health.

She concludes by highlighting the importance of the psychotherapist as "the psychobiological regulator of the patient's affective states with a quote from Allan Schore:

> The attuned, intuitive clinician, from the first point of contact, is learning the nonverbal moment-to-moment rhythmic structures of the patient's internal states, and is relatively flexibly and fluidly modifying her own behavior to synchronize with that structure, thereby creating a context for the organization of the therapeutic alliance.

In the initial section of her three-part neuroscience review,(USABPJournal, Vol.3, No. 2) Aline LaPierre concluded with a call to "somatic psychotherapy…to draw on its rich tradition to contribute valuable insights to the practical application of neuroscience with approaches that harness the plasticity of our nervous systems by stimulating neural connectivity, expand[ing] the inner reaches of the brain and enhance[ing] the interactive cooperation between sensations, emotions, and thoughts – and thus maximize the potential for gene expression and brain growth". In this regard, she stressed the importance of exploration of subtle dimensions of the body at microscopic cellular and molecular levels, exemplified by approaches such as Continuum.

Continuum represents, for its originator, Emilie Conrad, a lifetime of exploration of the possibilities of the fluid movement she originally observed not only within herself but in the wave motions of the sea, the exploratory undulations of aquatic creatures, and of the Haitian prayer rituals she observed and participated in during her time there as lead dancer in a folklore company. Feeling intuitively that God was not, as she observed in her culture, "elsewhere", she has spent more than 40 years in work with individuals, with groups, and in university laboratories, exploring the wisdom of the fluid of the cells of the body. Her intuition has been informed by quantum physics, cell biology and astronomy. Her pathbreaking work with spinal cord injuries has challenged the received knowledge of current medical science.

As she illustrates in a case history, Emily begins with breath to activate the fluid system of the body, the resonance of which is often referred to by others as various forms of energy. She then leads the patient to "complex intrinsic movement," opening him to new sensations, perceptions and connections with himself, others, and the beyond. As she says, "Our relationship with our planet is maintained by the resonance of our fluid systems with all fluid systems…." (In the contemporary spirit of "full disclosure" it should be known that I have taken workshops with Emily about once a year since 1997, and I have consistently admired not only the fluidity of her body but the incredibly innovative fluidity of her intellect along with an ability to articulate clearly what she thinks and how she moves. But, even her articulate clarity, it seems to me, only begins to express in writing the seemingly infinite subtleties and permutations of her work.)

In our final article, Ron Panvini, psychologist and Bioenergetic analyst as well as musician, illustrates the use of singing as both diagnostic tool and treatment in body psychotherapy. After reviewing the literature on the psychological aspects of singing and establishing a working definition ("the ability to carry a tune, to execute a tune in rhythm and to do this with appropriate feeling"), he presents several case vignettes illustrating how physical/emotional blocks can be affected through vocal resonance and song, using carefully chosen lyrics. He concludes that, contrary to popular belief, "difficulties in singing often appear to be the result of psychological factors rather than genetic deficiencies or lack of talent."

Panvini's conclusion reminds me that my own introduction to the body in relation to emotions came through the performing art that I had always studied: dance. As a graduate student living in Cambridge, I belonged to the Charles Street Meeting House, at that time a veritable den of creativity. Its leader was a poet publishing his books on an old press in the basement, a student was virtually rebuilding a 100-year old pipe organ, but the two members of great interest to me were Diane and Al Pesso. They were at that time dance instructors at a well-known performing arts college in Boston (at which, interestingly, one of the founders of USABP has taught for many years). Word came through the congregational grape vine that, puzzled by the differing abilities of their most advanced students to perform various kinds of movements, they were working with them to explore the emotional dimensions of those differences. And, they offered members of the Meeting House the opportunity to form a group for similar explorations. I remember finding it a totally fascinating "other world" and a wonderful antidote to overworking as a full time member of the MIT research staff as well as carrying a full graduate load of courses in political science and international studies. In that group, as I remember, the Pessos began to work with some of the "structures" that eventually became the basis for their work. I had always danced, but the psychological aspect was utterly new, and it took many more twists and turns of personal and vocational choices to eventually discover my life's work several years later.

Jacqueline A. Carleton, PhD
Editor

Body Psychotherapy Under the Rashomon Gate

John May, Ph.D.

Abstract

In *Rashomon,* a movie by Akiro Kurosawa, the characters present four contradictory stories about one event. None of the stories are believable. The truth is never discovered, leaving the characters in a state of confused agitation, the so-called "Rashomon Effect." Reading the body psychotherapy literature can be a similar experience: widely different versions of similar events leave the reader confused and agitated, able to believe none of versions. The author explores the Rashomon Effect, how it occurs in the body psychotherapy literature, and what can be done to prevent it.

> Case histories and vignettes are of course always in a sense fictional. So much needs changing for reasons of confidentiality, or simplifying for reasons of comprehensibility, that they can never fully describe the reality of what takes place. (Nick Totton, 2003, p. 3)

> Human beings are unable to be honest with themselves about themselves. They cannot talk about themselves without embellishing. This script (*Rashomon*) portrays such human beings – the kind who cannot survive without lies to make them feel they are better people than they really are. It even shows this sinful need for flattering falsehood going beyond the grave – even the character who dies cannot give up his lies when he speaks to the living through a medium. Egoism is a sin the human being carries with him from birth; it is the most difficult to redeem. (Akiro Kurosawa, 1983, p. 183)

Introduction

In Akiro Kurusawa's famous movie *Rashomon* (Kurosawa, 1950), set in 11th century Japan, a woodcutter, a priest, and a commoner sit under the Rashomon Gate on the outskirts of Kyoto and discuss an encounter in the forest between a bandit, a samurai, and the samurai's wife. The priest and woodcutter were present at an inquest into the events in the forest, and heard the events described three times, in testimony by each participant. The participants' versions of the story agreed on several essential details. Each was vastly different, however, leading to different conclusions about what happened and about the characters involved. In addition, the viewer eventually discovers that the woodcutter not only heard about the events in the forest, but witnessed them. He presents a fourth version. The bulk of the film consists of flashbacks, each person's version of the story. Each version is emotionally compelling, and each is plausible up to a point. But the priest, woodcutter (and viewer) recognize that none of the stories are reliable, leaving the priest and woodcutter (and perhaps the viewer) in a state of confusion, agitation, and despair.

What is the meaning of such a state of affairs? Some have said it is about "the inability of any one man to know the truth, no matter how clearly he thinks he sees things. Perspective distorts reality and makes the absolute truth unknowable." (Berardinelli, 2004) Some see it as a statement of moral relativity. Or is it "about the kinds of lies people will tell to protect their self-image, the most important possession?" (Solomon, 2004) One of the epigraphs at the beginning of this paper was the director's explanation of the movie to his assistants as they began shooting. (Kurosawa, 1983, p. 183.) This explanation asserts that "Human beings are unable to be honest with themselves about themselves" because they need to "feel they are better people than they really are." (Kurosawa, 1983, p. 183).

In the movie, the approach to reality is made almost completely through personal testimony (unsupported individual assertion). Very little evidence is made available. The movie depends on this absence of evidence, for evidence could be used to support or discredit the stories relative to each other. Indeed, there is one piece of evidence given in the movie, the wife's jeweled dagger. It demonstrates this point: it leads directly to the discovery that the woodcutter's initial story – that he discovered the dead body well after the murder – is a lie. He is forced to acknowledge that he witnessed the events and tell the fourth version. It is only unsupported individual assertion that is sufficiently unreliable to create the Rashomon effect.

Reading accounts of body psychotherapy is often like sitting with the priest and woodcutter under the Rashomon Gate. "Events" took place "in the forest," and the therapist was a participant-observer. Published reports are the "testimony" presented at the official "inquest." Like the stories told in *Rashomon*, stories told in the body psychotherapy literature may agree on a few basic facts. However, they differ widely on many other important facts, leading to different conclusions about what happened, why, and who played what role. Such a situation is confusing, upsetting, and disappointing, much as it is in the film. When working with a client, one must choose one's interventions, and one must do it from theories (generalized abstract stories about body psychotherapy) that vary widely and call for responses that can be diametrically opposed. Indeed, the confused agitation I sometimes feel in reading the conflicting claims of the body psychotherapy literature, often wildly asserted, is the original motive for writing this paper. I have wanted for years to explore these issues in body psychotherapy. It was not until I recently discovered *Rashomon*, however, that I found a

language to do so. As in the movie, it is not just the conflicting claims in the body psychotherapy literature that are the problem. It is the wild and unsupported way they are asserted. It is the lack of evidence that makes the Rashomon effect possible.

Body psychotherapy is not unique in fitting the Rashomon effect. However, too much of the body psychotherapy literature, though couched as theory or case presentation, reduces to unsupported individual assertion. The body psychotherapy literature fits the Rashomon effect quite well, as I will show. A traditional sentiment holds that "It is better to know nothing than to know what ain't so." (Billings, 1874) Not only does incorrect knowledge misdirect our clinical efforts, it misdirects the development of theory. Further, and this is the effect upon which this paper will focus, it undermines the confidence the reading public can have in us as therapists, as theorists, and as professionals.

Critical discussions of *Rashomon* often analyze the cinematic techniques used to convey each version of the story persuasively, with sufficient commonality yet sufficient contrast to represent something that is at once a single story and four separate stories. Instead, I will explore the factors within and between the various stories that make them unreliable. While reality may be fundamentally subjective, it does not follow that all versions must be equally valid. I will use *Rashomon* as a jumping-off point for a similar analysis of factors that undercut the confidence one can place in the stories told in the body psychotherapy literature. Understanding the problems of belief in the movie *Rashomon* may be helpful in understanding the problems of belief in the body psychotherapy literature.

The Stories of Rashomon

In *Rashomon*, a priest and a woodcutter sit under a huge roofed gate seeking shelter from torrential rain. They are confused, distraught and agitated. A commoner joins them and cajoles them into telling what has upset them so. The woodcutter says that he entered the forest recently, discovering some women's clothing strewn about, then a man's cap, then some ropes that had been cut, and finally the body of a samurai, killed by a stab wound. At an inquest, it was discovered that the events in the forest involved a bandit, a samurai, and the samurai's wife. One after another, each of the participants told their story in flashback form from his or her own perspective.

In the version told by the bandit, he tricked the samurai, tied him to a tree, and raped his wife in front of him. She resisted valiantly, drawing a jeweled dagger, but the bandit disarmed her. In fact, he was so virile that she submitted to him willingly. Afterwards, she insisted that one of the two men must die in order to salvage her honor. The bandit released the samurai, and they fought a noble, skillful duel, ending with the bandit killing the samurai. Meanwhile, the woman escaped. The authorities questioned the bandit about the dagger, because they had not recovered it. The bandit said that he forgot it, which was foolish, for it was inlaid with pearl and quite valuable.

In the version told by the wife, the bandit raped her completely against her will, then ran off into the forest, laughing maniacally. She sought solace from her husband, and cut him free from his bonds. The samurai responded with a contemptuous stare. Unable to bear his scorn, she became hysterical with shame, offered him the dagger, and implored him to kill her. Though now freed from his bonds, the samurai stood as if frozen and continued to hold her in his contemptuous gaze. The woman moved toward him holding the dagger, as if commanded to by his eyes. Then she fainted, and when she awoke, she found him dead with the dagger in his chest. She ran off.

The samurai gave his version from beyond the grave, through a medium. (The viewer is meant to take this as a valid version of the samurai's story. It may be as untrue as the others, but not because of the medium.) After the rape, the bandit proposed that the wife run off with him. She agreed, but demanded that he kill the samurai first. Both men were stunned by her sudden betrayal. The bandit offered to kill her for it, if the samurai wanted. The samurai refused to have anything further to do with her. Sensing her peril, the woman ran off, chased by the bandit. He returned hours later, unable to catch her, and without explanation cut the bonds of the samurai, then walked off into the forest. Alone and dishonored, the samurai stabbed himself with the jeweled dagger, which had been lying on the ground. Through the medium, he reported that as he died he could feel someone remove the dagger from his heart, but he could not see who.

In this way, each participant described what was clearly one event, but which was also three vastly different events, depending on who told the story. They all told stories that maximized their own nobility. The bandit portrayed himself as possessing irresistible potency and masculinity, and the other two as helpless to resist him. The woman portrayed herself as the victim of unbearable pathos, and the two men as depraved and cruel. The samurai portrayed himself as a man of great honor, the woman as a traitor, and the bandit as initially depraved, but ultimately a man of honor also. Each also made himself/herself the killer, the most important role, though objectively it was foolish and unnecessary to do so.

Because of the differences between the stories, it is impossible to rely on any of them. They undercut each other. In addition, each is undermined by several internal factors. For instance, the bandit laughed maniacally, both in the forest and during his testimony at the inquest, where he kicked and stomped his feet like an overexcited child. It makes no sense for this sort of man to have fought a fair duel with a samurai in order to salvage the honor of a woman he had just raped. Thus, the viewer doubts his story. The woman, on the other hand, claimed to have killed the samurai with the dagger as she fainted. But the authorities did not find it in his chest where she said she left it. In addition, it is difficult to believe that a samurai, a trained fighter who had presumably witnessed many savage events, would stand like a statue while a hysterical person staggered towards him and killed him with a dagger. Thus, the viewer doubts her story. The samurai's version also required the missing dagger to be found in his heart. In addition, why did the bandit inexplicably return to set him free, as the samurai claims? Thus, the viewer doubts his story as well. One can see signs of distortion in each version, distortion designed to put the teller in a light that, even if it portrays him/her as a killer, flatters his/her self-importance.

The woodcutter and priest witnessed the telling of these stories, but they (and we, the viewers) have no basis for choosing among them. The film returns to the three men sheltering at Rashomon Gate. It is not clear how the commoner reaches his conclusion, but he accuses the woodcutter of lying. He asserts that the woodcutter must have witnessed the whole thing, and that he is the one who took the missing knife. The woodcutter acts and looks very guilty, suggesting he has done something he doesn't want others to know about. He never acknowledges taking the knife. He does admit witnessing the events, however, and proceeds to tell the story in a fourth version.

After the rape, the bandit pleaded with the wife to marry him, as in the samurai's story. The woman cut the samurai's bonds, saying that the two men must fight for her, as in the bandit's story. The samurai backed off, not wanting to put his life in jeopardy. He called the wife a whore and suggested that she kill herself, as in the wife's story. He then offered to give her to the bandit. After some consideration, however, the bandit decided he didn't want her either, as in the samurai's story. The wife responded by taunting the two men for their cowardice, a new element. She succeeded. They drew swords, and a sword fight ensued, as in the bandit's story. It was hardly the skillful, heroic fight depicted there, however. It was a bumbling, fearful, desperate encounter. Eventually the exhausted and shaken bandit was able to kill the whimpering samurai. The wife escaped into the forest, the bandit too shaken and tired to follow.

In a movie, the final version of events is often presented as the "right" version, even if it is right only on an emotional level, not a factual level. For instance, in *Run, Lola, Run,* (Arndt & Tkwyer, 1998) the final presentation of the story is emotionally more satisfying than the others, and one relates to the two previous versions almost as practice runs. Thus, there is a temptation to take the woodcutter's story as the "true" version of reality. However, some critics emphasize that the viewer cannot easily do so. First, his story, as noted above, seems mostly constructed from the stories of the others. Is it real, or a patchwork fabrication? (Richie, 2001) Second, the viewer already knows him to be a liar – and a very guilty-looking one at that. His original story of discovering the body in the forest is the only part of the story about which the viewer can be sure, and it is false. Third, the problem of the missing dagger can only be resolved if the woodcutter took it. Thus, he must also be a thief. But how did he take it? Did he take it from the ground where it had fallen after the bandit ran off forgetting it? Did he pull it from the samurai's heart after the suicide? Or here's an intriguing possibility: did he pick it up from where it had fallen when the wife fainted, and use it to kill the samurai? Like each of the others, his story assigns the least ignoble position to himself. He is the only one who does not depict himself as the killer, however. What of that? It is impossible to know. The only thing one knows for sure is that the missing dagger has proved his first story about discovering the body untrue.

Kurusawa presents a resolution to the dilemma. Suddenly a baby cries out, and the men discover an infant has been abandoned at the gate by its parents, with a kimono as payment to whoever takes the child in. The commoner, inspired by the woodcutter's theft of the dagger, takes the kimono and leaves with no qualms. The woodcutter, however, takes the child home to raise as his own, causing the priest to exclaim that he has restored his faith in humanity. What happened in the forest suddenly becomes immaterial; what matters is this basic act of human decency. It even stops raining, and the sun comes out! But even here there are problems, as the critics note (Richie, 2001). The men have been at the gate for some time. They have ripped wood to build a fire from a wall less than five feet from where the baby is found. They have walked around and spoken with each other at length. Why have they not seen the child before, as it was lying close by? Why has it not cried before? Why is it crying only now that a resolution to the dilemma is needed? Kurosawa constructed the rest of the film very carefully. Did he suddenly get lazy? Unlikely. In other words, the thoughtful viewer finds himself/herself mistrustful of the resolution, much in the same way that he/she mistrusts the stories of the four characters. In the epigraph, which is taken from Kurosawa's autobiography, he wrote that ego attachment leading to self-aggrandizement is the most difficult to redeem of all human sins. (Kurosawa, 1983, p. 183.) Is Kurosawa saying that any resolution of the problems posed by the movie must be facile, a bit phony? Perhaps.

Four Kinds of Stories in Body Psychotherapy

Stories are also important for psychotherapists of all types, including body psychotherapists. The relation between psychotherapy and story telling, however, has been discussed more fully in the general psychological literature and in the psychoanalytic literature than in the body psychotherapy literature. I will discuss four types of therapeutic story.

The first type of story can be called the clinical story. In session, clients sometimes narrate stories.. These stories can be recent or past events, or they can be about other material such as dreams, fantasies, books they read, art that affected them, etc. Such story telling in session can be differentiated from other kinds of verbal communication, such as analyzing and thinking. Wilma Bucci (1997) found that when clients tell stories, their language changes, indicating a different kind of underlying cognition. Her research suggests that clinical story-telling is particularly important for producing the kind of nonverbal processing that is essential for therapeutic change. (Bucci, 1997) Body psychotherapists tend to believe that clinical stories get told not only through verbal telling, but also through somatic experiencing and physical movement, which may add richness and emotional impact to the narration. Whether one can rely on clinical stories to be "truth" has been an important controversy. (Loftus, 1993) It is not, however, the focus of this paper.

Another way psychotherapists use stories is to help clients understand themselves and their lives (the life story). Clients and psychotherapists use the clinical stories that are narrated in session to construct an overall understanding of the client's life. The individual stories are woven together to form a life historical narrative. "The continual creation and revision of a life story is an ongoing process in which we all engage. It is a basic function of the mind which serves to maintain identity and the coherence of the self." (Aron, 1989) That this type of story is important in body psychotherapy is

demonstrated by the results of a study by West (1992, 1994). He asked 45 former body psychotherapy clients how important and how frequently used a number of therapeutic factors were in their therapy. Ninety-one percept said that "Help you gain insight into yourself," was used in their body psychotherapy "sometimes, frequently, or every session." Its use was rated helpful or very helpful by 87% of them. The results were similar for "Help you understand yourself and the world around you" (88% and 82%, respectively). These two factors both tap what I am calling the life story. The frequency of their use and their helpfulness ratings were higher than those of body-oriented factors, such as "Drawing your attention to or otherwise encourage your breathing (81% and 71%), "Making you aware of energy in your body, (75% and 66%), and "Use of massage and/or physical contact," (66% and 71%). Thus, this study confirms that creating a life story is an important factor in body psychotherapy.

Third, client and psychotherapist create a story of how events unfolded over time in the therapy (the therapeutic story). These stories get published as case histories and case vignettes. Historically, case histories have been important in the development of psychotherapy. Some have attributed the success of psychoanalysis to the emotionally engaging, dramatic, and literary qualities of Freud's case histories. "'Freud's case-histories are a new form of literature' – and great literature at that…[When we read one] 'we know that we are in a novel–probably by Proust.'" (Marcus, 1984, quoted with comments in Badcock, 1984, p. 499) Body psychotherapy often involves many hours of interaction between client and therapist. For instance, in her study of Bioenergetics, Ventling (2002) found that half of the clients contacted were in therapy for longer than 75 sessions, and 25% for longer than 150 sessions. Similarly, in West's survey of Energy Stream clients, the median length of treatment was between 18 and 24 months. (West, 1992, 1994). Heller and Haynal (1997) have estimated that a million transactions occur between client and therapist in a clinical hour, just considering facial expression. If one extrapolates from that to the whole body plus the various verbal realms, and then extends it over many months of treatment, it becomes obvious that in constructing a therapeutic story, client and therapist condense a staggering number of interactions and events. If they didn't, the complexity would be overwhelming.

The story that client and therapist construct cannot possibly account for every interaction, and there may be many specific interactions that seem inconsistent or even counter to the main thrust of the story. Client and therapist are selective in deciding which events to exclude, include, and emphasize in creating the therapeutic story. These facts underscore the extent to which the epigraph above by Totton (2003) is true: therapeutic stories are fiction. However, the story must be sufficiently true to the therapeutic process, or it will be of little (or perhaps even negative) value. The therapist "makes sense out of what has happened by using a narrative frame of reference to see how the fragments he observes go together… But that does not mean he can tell or piece together any old story he wants." (Edelson, 1992).

A fourth kind of story that psychotherapists create is theory. Theory is often described as a map or as a language, both very apt metaphors. It is also a story, however, a generalized, abstract narrative of what happens in life, in the mind, in the body, and in the consulting room. To understand how a map translates into a story, consider a map of the central United States. That map shows New Orleans below St. Louis on the Mississippi River. New Orleans is not, of course, below St. Louis, it is south. That is what the map is meant to indicate. But this can also be translated into a story, something like this: "I had a compass. I started at St. Louis and paddled my boat south, following the river. It took a long time, but I eventually got to New Orleans." In this way, the map and the story are translations of each other. In the consulting room with a client, this story-like quality is a very important aspect of theory. Theory specifies how one should understand where one is with a client and the actions one should take in order to achieve the therapeutic goals.

The last three types of stories are particularly germane to the focus of this paper, but all four are closely related, and they determine each other in a circular manner. Theory tells the story of the consulting room in abstract form. It also, however, determines what stories emerge in the consulting room, and it determines how client and therapist will weave the events of the consulting room into a therapeutic story and a life story. Theory guides the therapist in establishing the therapeutic context, guides the kinds of inquiries and interventions that are made, guides what is attended to and what is ignored, and guides the kinds of explanations that are given. "It is often the case that one's theories have a crucially important influence on one's practice…One's theory determines one's understanding of a patient's…functioning, and it is on the basis of one's understanding…that one decides what to say to a patient and when and how to say it." (Brenner, 2000, p. 626)

Circular Stories

In determining the clinical, therapeutic, and life story, theory often elicits and selects only those events that are examples of the theory. In this way, a circular causation, perhaps even a tautology, can be established. These problems of circularity have been well discussed in the psychoanalytic literature. Indeed, they were at the core of the criticisms that the self-psychologists (followers of Kohut) made of the object relations psychologists (followers of Kernberg). The self-psychologists accused the object relations psychologists of having a theory that said one had to powerfully confront the pathological aggression of borderline clients. These confrontations, however, were powerful attacks to which anybody would react with hostility. The self-psychologists felt that the hostile reactions of the clients were provoked by the technique, but were then taken as evidence of pathological aggression belonging to the client. Thus, the self-psychologists felt that a circular self-reinforcing theory and therapeutic story were created. (e.g. Brandchaft & Stolorow, 1984)

One can see the way in which theory determines clinical findings, only to have those re-determine theory, in body psychotherapy as well. Consider the classical Reichian model. Reich developed his theory of the muscular armor out of experiences he had with a number of clients during the late 1920s and 1930s. Some of these cases are described in

Character Analysis, (Reich, 1949), and the overall development is described in The Function of the Orgasm. (Reich, 1942/1973). As these sources make clear, by this time Reich was experimenting with rather powerful, often confrontational, interventions. Once one accepts Reichian theory, it tends to direct one toward a style of working that is similar to his: it is typical to have the client breathe and make expressive movements or sounds. Meanwhile the therapist makes various manipulations to help release the muscular armor. It is often a challenging and invasive process. Bean (2000) gives a description of this process from the client's perspective that is charming and respectful, but which never-the-less captures its invasive quality. In the first session, without explaining or taking time to build a relationship, Bean's therapist directs him to remove his clothes, except for under-shorts and socks, and lie on the bed.

"Yes, sure," said Willie the Robot, and did so. "Just breathe naturally," he said, pulling a chair over to the bed and sitting down next to me…I thought: "What if I get an erection, or shit on his bed or vomit." The doctor was feeling the muscles around my jaw and neck. He found a tight cord in my neck, pressed it hard and kept on pressing it. It hurt like hell but Little Lord Jesus no crying he makes. "Did that hurt?" asked Dr. Baker.

"Well, a little," I said, not wanting to be any trouble.

"Only a little?" he said.

"Well, it hurt a lot," I said. "It hurt like hell."

"Why didn't you cry?"

"I'm a grown-up."

He began pinching the muscles in the soft part of my shoulders. I wanted to smash his sadistic face, put my clothes on, and get out of there. (Bean, 1971/2000, p. 17-18)

The point here is not to criticize technique, nor is it to scandalize. Many body psychotherapists have experienced somewhat similar encounters with their therapists, and believe that such experiences can potentially lead in productive directions. Bean documents the many positive effects of his therapy in his book. The point here is the circular dynamic by which theory determines the events in the consulting room, which then determine the theory. Reichian theory states that resistant muscular armor needs to be broken down using such vigorous methods. It is difficult to see, however, how anything other than resistant muscular armor could emerge under conditions such as those described by Bean. It is provoked and elicited by the therapeutic technique. These reactions then become evidence incorporated into the theory, bolstering the concept of the muscular armor. A circular story is created.

Such circular effects are not unique to Reichian approaches. For instance, the Sensorimotor Psychotherapy approach developed by Ogden is quite different from traditional Reichian work. In a pre-conference institute at the 2002 USABP conference in Baltimore, Ogden (2002) presented video vignettes of two clients in Sensorimotor Psychotherapy. In those cases, Ogden heavily emphasized the technique of tracking (See Kurtz, 1990, for a description of this technique). Ogden tracked her clients' experiences intently, using an almost constant stream of verbal comments to tell them what she was seeing. My notes from the seminar indicate that her comments were softly voiced and respectful, often consisting of little more than a repetition of what the client had just said. But they came quickly and almost constantly, creating a rather intense cumulative pressure on the clients. Both had negative reactions that suggested that they experienced the interventions as too intense, forcing, or intrusive. In one session, the client froze and could not un-freeze until the therapist moved almost completely across the room. In the other session, the client reacted with anger. Following the videos, Ogden fielded more than one question from the audience about whether the reactions of the clients were provoked by her interventions. In her opinion the possibility was irrelevant. She felt that in each case, the client's organizing structure was now on the table. In other words, she saw their reactions as validation of her theory. Thus, circular stories were created. 1

As before, the issue here is not the skill of a particular therapist - which of us has not provoked negative reactions from a client? Nor is it the validity of a particular therapeutic technique. Rather, the issue is the way that theory determines therapeutic events, and then those events determine theory. These circular effects are not precisely circular reasoning, but they are something close. They undermine the confidence one can place in the conclusions described by the theory. The analysis presented above suggests that the problem of circular stories may be inherent to the process of deriving theory from case histories. Such an opinion is not new in the psychological or psychoanalytic literature. For instance, in an extensive review of the advantages and weaknesses of case histories, Spence acknowledges

"The clinical reality is ambiguous and multiply determined; yet the facts in the usual clinical account are considered signposts or barometer readings which lead us unerringly to the solution. We are gradually coming to learn that many of these "facts" are created by us; that they never exist until we choose to see or hear the clinical encounter in a particular way; and that without the perspective of the treating therapist, they can easily be interpreted differently, or might even disappear." (Spence, 1993, p. 38)

Thus, the problem may be ubiquitous in the psychotherapy literature. The fact that it may be ubiquitous should not act, however, as license for body psychotherapists to ignore the need to ground one's theories on solid evidence. Rather it should act as a call to pay particular attention to that need.

[1] It is somewhat ironic that I am using case material by Ogden to illustrate this point. She seems generally to be more concerned than most body psychotherapists that her ideas be carefully grounded on solid evidence. On the other hand, if one finds this effect even here, then perhaps one can have confidence that it is ubiquitous in body psychotherapy. Ogden deserves many thanks and much respect for the courage and integrity to show videos of her work in this fashion. I generally respect her work, and feel reluctant to criticize it. There is also very little disagreement, questioning, and criticism in the body psychotherapy literature. However, publicly shared work is the principle clinical data available. If I need to illustrate a problem, and I do not use the clinical material that illustrates it, what will I use?

Wild Assertion

Three other characteristics of the body psychotherapy literature tend to undercut the confidence one may place in the stories told there. They are wild assertions, unconvincing evidence, and many stories.

"Wild assertion" derives from the analytic term "wild analysis" (Freud, 1910). Baudry extends this concept to literary analysis in reviewing a book about the poet Keats by Pederson-Krag. Baudry refers to claims made by Pederson-Krag that "are only plausible rather than supported by convincing evidence," leaving the reader in a position of having to accept the author's constructions on faith. Baudry sees this process as a sort of "literary wild analysis." (Baudry, 1986, p. 542))

A similar process can occur in theoretical literature. Some authors seem to operate on the assumption that if they think something, then it must be so. It winds up in print. Huge assertions, sometimes ones that contradict established traditions of thought, are tossed off like suggestions for tonight's dinner menu. Sometimes it seems that the bigger the assertion, the more wildly it is made, and the less support it gets. There seems to be no systematic checking to test the validity of the idea.

The writing of one of the most fertile minds in body psychotherapy, Stanley Keleman, can serve as an example. Each of the following statements by Keleman is given without support, evidence, or justification. Each is stated as if it is obvious, or as if the fact that he says so is all the justification anybody would ever need.[2]

Shock and trauma and the response of stiffening occur intraspinally, that is, in the spinal and cranial passages and fluids. (Keleman, 1989, p. 9)

…dissociation, splitting, denial, projection, and depression…are cellular states with psychological implications. (Keleman, 1989, p. 11)

A graceful person is a healthy person. (Keleman, 1975, p. 28)

Contracted breathing…inhibits oxygenation, there is a buildup of CO2, an acid state which gives rise to delusions… (Keleman, 1975, p.80-81)

These are large assertions that may or may not ultimately be proven correct. On their face they seem contradictory to current traditions of thought. A minimum of careful consideration often suggests that wild assertions are problematic. For instance, if graceful persons are healthy persons, then dancers must be healthy. But studies of dancers find that many of them are not; they experience rates of serious eating disorders far beyond those found in the general population (e.g. Garner, Garfinkel, Rockert, & Olmstead, 1987).3 Or alternatively, many people have contracted breathing but do not suffer from delusions.

Keleman is not, of course, unique in his use of wild assertion. A few examples will give an idea; each is offered by its respective author without justification:

(With regard to couples interaction) We've found that any truth that isn't communicated within a few minutes turns into witholds and projections, creating the trickle of distance that gradually erodes relationships in the bedroom and the boardroom. (Hendricks, 1997, p.39, italics added)

Life requires us to be constantly and unconditionally creative, or we become less fit and cannot succeed in life. (Caldwell, 1997, p. 108-109, italics added. Although in this quote and the one above the italics are added, the paragraphs from which each quote is taken make it clear that the italics draw attention to a sentiment that is intended by the author.)

The condition of impaired pulsation of the ANS is closely linked to impaired capability of sexual sensation. (Buhl, 1999, p. 46)

(In regard to working with the in-stroke) As a result of this emphasis on self-reference, there is less transference, acting out of emotions, projection, dependency and blaming…a clearer sense of security develops within. (Davis, 1999, p. 87)

Breathing is always as the person is. It is the clearest index of what is happening in the person – unless it is made up. (Selver, 2004) (In other words, breathing is a clear index except when it isn't – the author recognizes that her assertion is so wild that she takes it back.)

(Speaking of people who come into body psychotherapy) They want to learn how to embody their deepest values. (Stromstead, 1998, p. 149)

The body tells the truth. (Rubenfeld, 2000, p. 19)

This list of wild assertions from the body psychotherapy literature could go on and on. The above is sufficient, however, to illustrate the depth and breadth of the problem. Each of the above statements is attractive. If given no thought, each might even seem plausible or likely. However, if the reader stops and reads the statement carefully, then each is revealed to be a startling assertion that runs counter to either common sense or a tradition of current knowledge. For instance, common sense would indicate that to be literally constantly and unconditionally creative would be unsustainable

[2] Many wild assertions are stated by their authors in forms that are too long to import into a paper such as this. Indeed, using Baudry's criteria of claims that are only plausible rather than supported by evidence, whole body psychotherapy books could almost be seen as consisting chiefly of wild assertion. For purposes of quotation, I have tried to use briefer statements. They exemplify the nature of wild assertions, though they do not necessarily catch the rather extreme nature of some of the body psychotherapy literature.

[3] Some might assert that the meaning of "graceful" as used by Keleman may not have anything to do with the gracefulness of dancers. If so, then the meaning has been expanded so dramatically as to have no meaning whatsoever.

– a terrible burden; it would not be the prerequisite of success. Alternatively, the reader can probably think of numerous acquaintances who have failed to communicate any and every truth within a couple of minutes, but who don't seem to have destroyed their relationships. In a similar way, it seems likely that many clients come into body psychotherapy without a desire to embody their values – in fact, they may not have any idea of what that would mean. And finally, if one accepts that the body tells the truth, then what should one make of conversion reactions, where the body appears to be blind, paralyzed, or pregnant, when in actuality it isn't?

The reader may object that in some of the wild assertions above the problem is that the author's statement has become too extreme. There is a less extreme truth hidden behind what has actually been said, and the author should be credited with that sentiment. For instance, with regard to distancing in relationships, it is a common couples therapy hypothesis that both secrets and the inability to express one's feelings can introduce distance into relationships. Perhaps that is what Hendricks really meant? There are reasons to reject this perspective towards wild assertion, however. First, the tendency towards extremes can itself be a problem. In the movie *Rashomon*, the bandit's behavior goes to extreme, seeming maniacal. He laughs maniacally and kicks and stamps his feet. This quality is a primary factor that causes us to mistrust what he says. Similarly, when an author makes an extreme, wild assertion, it undermines our trust irrespective of what is really meant. The second reason to reject this view is that it posits that the author meant something other than what was actually said. The above quotations are taken from chapters in books and from articles in professional journals. Presumably the authors have thought carefully about what they are saying. If not, why are they publishing in the first place? Presumably, the chapters and articles have also been subject to an editing process. Thus, it may not be proper to simply credit the author with careless or sloppy wording. Most likely, the author believes in the sentiment. In some cases, it is precisely the excessiveness that turns an otherwise unobjectionable sentiment into an unsupported wild assertion.

In *Rashomon*, it is not the obligation of the viewer to prove any of the stories false. If the viewer is to believe the bandit's story, then the bandit has the burden of proof; it is his task to provide support for what he claims. The same would apply to the wife, the samurai, and the woodcutter. Similarly, in the body psychotherapy literature, it is not the obligation of the reader to prove an author's claims false. Rather, the author has the burden of proof; it is his or her task to demonstrate that the claims are correct. In the study of reasoning, when one asserts a claim, one has the responsibility to present evidence in support of the claim. When necessary, the author should also present arguments as to why the evidence should be taken as sufficient to support the truth of the claim. These arguments are called "warrants." (Zarefsky, 2001) The general notion has been that the farther one's claims get from the generally accepted view, or the bigger and more important the claims, then the stronger their support must be. (Kuhn, 1996) But many authors in the body psychotherapy literature seem to do just the opposite.

Thus, when the bandit asserts that he set the samurai free from his bonds so the two of them could fight a duel to salvage the honor of the woman he has just raped, the viewer doesn't believe him. It seems absurd, and the viewer's confidence in the whole story is diminished. In the body psychotherapy literature, wild assertions that fly in the face of established traditions of thought, and which come without sufficient support, undercut the reader's confidence in the whole of the author's story.

Unconvincing Evidence

A recent body psychotherapy book by Ruella Frank describes her theory of body psychotherapy and uses case vignettes throughout to illustrate the concepts discussed. This is a time-honored method that dates back at least to the origins of psychoanalysis (Breuer & Freud, 1893-95) and body psychotherapy (Reich, 1949). The book ends with the words “This is the theory. This is the therapy.” (Frank, 2001, p. 214, bold face and italics in the original) These words express Frank's conviction that the theory she has presented is a faithful depiction of her type of therapy: the theory is an abstract telling of the therapeutic story and life story. Frank apparently fails to notice, however, that the case material often does not seem to exemplify the theory that it is intended to illustrate. The reader gets left in a confused and agitated state, much like the priest and woodcutter in *Rashomon*.

In most of the chapters, Frank describes a bit of her theory, then uses a clinical vignette to illustrate the concepts. For instance, in Chapter 2, Frank gives a generalized description of the biomechanical and structural implications of toddling patterns. In Chapter 3, Frank discusses the issues of primary orientation in gravity – the developmental implications of weight and weight-bearing.

The cases she describes, however, seem only marginally related to the topics of the chapters. In Chapter 2, she describes a client she calls "Karla." Frank describes Karla sitting on an exerball. She describes the intervention of pressing down on Karla's head to compress the spine. As the work develops, Karla collapses her own posture, which Frank mimics. Karla recognizes that she feels small, and is angry over it. Interesting work, no doubt, but what does it have to do with the biomechanics and structure of toddling? The case is offered as an illustration of those principles, but it is hard to see how it relates. Similarly, in Chapter 3 Frank describes the case of "Sharon." Frank has Sharon lie on her side and surrounds her with rolled-up blankets. As the work proceeds, Frank places a hand on Sharon's abdomen, then places it other places on Sharon's body according to Sharon's instructions. Sharon begins weeping. Again, this is interesting work. But the case is offered as an illustration of issues related to gravity, weight and weight-bearing. It is difficult to see the connection, and the reader is left confused and agitated, much like the woodcutter and priest under the Rashomon gate.

The final chapter of Frank's book is devoted to a more extensive case history, the case of "Annie." The case reports how, as therapy began, Annie was given to extreme emotionality and to experiencing herself as brutally criticized. Frank reports that Annie experienced the body interventions "like another terrible breach of faith." (Frank, 2001, p. 191) Frank documents the large amount of work required to help Annie feel safe in session, basically creating a holding relationship of the type described by Winnicott (1965). Yet in the midst of describing how the body interventions were damaging and the relational interventions facilitative, Frank concludes that the body interventions "had a profound impact on Annie and were crucial to healing." (Frank, 2001, p. 191) Might not the reader be justifiably skeptical of such a conclusion? Might not the reader wonder if the body interventions hindered the treatment, rather than facilitating it? Would a different story be a better description of the healing qualities of this therapy, a story that saw the holding quality of the therapeutic relationship as the primary therapeutic factor?

Again, the point here is not to criticize technique. At least with regard to the case of Annie, Frank carries the case forward sufficiently to demonstrate that Annie improved greatly in many areas of her life. Rather, the point is that the evidence Frank produces does not seem to support Frank's theory. It seems unrelated. I noted above that authors are sometimes expected to provide warrants, arguments that their evidence should be taken as proof of their thesis. Frank provides no such warrants. In this way, Frank's theory is undermined.

Is this not like *Rashomon*? The samurai said that he killed himself, but the evidence suggested otherwise. If he killed himself, the dagger should have been found in his chest. But it wasn't, it was missing. Thus, his story was undermined. Frank says the body interventions effected the cure, but the evidence she produces seems to suggests otherwise. Her theory is undermined.

Other psychotherapy approaches also have this difficulty, not just body psychotherapy. This was plainly revealed recently at the conference of the International Association for Relational Psychoanalysis and Psychotherapy. Adrienne Harris presented a case history. Then Jeanne Wolff Bernstein discussed it from a Lacanian perspective, and Andrew Samuels discussed it from a Jungian perspective. Then Harris herself commented from a relational perspective. (Dimen, Harris, Bernstein & Samuels, 2004) Harris described one of her client's dreams as part of the case presentation. Bernstein felt that the dream was central to understanding the case material, and its meaning was that the client had defeated the analyst. Samuels also felt that the dream was important, and that it represented the client moving to the higher aspects of her personality. Harris, on the other hand, felt that the dream was not particularly central to understanding the material, and that it had to do with the establishment of a therapeutic relationship that could contain the client's material. The three discussants all explored and developed their interpretations of the meaning of the dream, but none of them addressed the issue of how one should decide if one interpretation was more apt than the others. Thus, the panel presentation was, itself, a mini-experience of sitting under the Rashomon gate.

What makes all of this possible, as noted above in the discussion of the movie *Rashomon*, are inattention to evidence and evidence that is unconvincing. I have picked on a single book to illustrate the issue of unconvincing evidence primarily because it cannot be done briefly enough to allow more. This problem is not unique to Frank's book, however. Compare the approach to evidence in Pierrakos (1987), and Rubenfeld (2000), where the evidence in support of the claims seems fairly unconvincing, to the approach in Totten (1999), Downing (1996) Beebe (2004), or even May, (in press), where the evidence seems more substantial and is approached more carefully.

Many Stories

In *Rashomon*, four quite different versions of the same events are told. In watching the movie, it is the competition between these views that provides the first and most powerful assault on the confidence one can place in any of them. If one saw only one of the versions, one might be inclined to accept it, glossing over the inconsistencies that have been discussed above. But because there are four versions, and because the versions disagree so fundamentally, one's attention is drawn to the other reasons for being skeptical, and one's confidence is undermined.

Some of the stories body psychotherapists have developed also differ from each other quite fundamentally. It may be useful to briefly illustrate some of these differences. Movies are often described in brief summaries a couple of sentences long. Such reviews fail to capture the rich complexity and detail of the films they describe, but are useful for getting a very rough sense of the story. The stories of body psychotherapy can be briefly summarized, with similar results. The summary fails to capture the rich complexity and detail, but gives a rough sense of the story. The following summaries are not intended to be comprehensive, nor are they intended to match specific schools of body psychotherapy. Rather, they illustrate some of the contrasting stories told in the literature.

Breaking Away (the Armor). A client comes to therapy imprisoned by muscular tension and rigid characterological attitudes. The therapist activates and attacks the armor vigorously. Released from this prison, the client's functioning improves. This story has been very influential throughout body psychotherapy. It is most purely represented in Reichian and Neo-Reichian schools, but its influence can be seen throughout the field.

The Razor's Edge (of ANS arousal). Activation triggers traumatized clients into autonomic nervous system over-arousal, but without activation they sink into deadened under-arousal. The therapist tracks arousal very closely to desensitize these trigger reactions. This story is well represented in the work of Ogden (2002), Levine (1997), and Rothschild (2000).

Your Chi-ting Heart. Clients come to therapy with energy blocks. Therapists read and manipulate these energy fields. When the energy flows properly, the client's problems are resolved. This story is also influential in many forms of body psychotherapy, but may have received its fullest statement in the work of Pierrakos (1987).

Body to Body, Heart to Heart. The problems clients bring to therapy are embodied and expressed through sensation and movement. Understanding biology and working with movement and sensation helps resolve these problems. This story is ubiquitous in body psychotherapy, but descriptions by Pesso (1997) Cornell (2002) and by May (in press) are examples of analyses that are principally biopsychological.

Touch Me in the Morning. Clients come into therapy hungry for touch, a basic human need. The therapist touches the client as the best way to contact and change the client's process. This story is represented in any approach that involves palpation of the client. Examples might include the classical Reichian approach, the neo-Reichian approaches, and the approach of Rubenfeld (2000), to name a few.

A Touch of Evil. Some clients don't respond well to touch in therapy. They misinterpret it, become retraumatized, feel taken advantage of, or develop unresolvable transference. This story is evident in the ethical guidelines issued by United States Association for Body Psychotherapy (2001), in publications by Rothschild (2000), May (2002) and Phillips (2002).

The Good Earth. Feeling an energetic contact with the ground beneath one's feet is the primary avenue of reality contact and an essential support for effective living. Helping clients ground themselves is one of the first things a therapist should do. This story is particularly emphasized in approaches that derive from the work of Lowen (1975).

Eyes Wide Shut. The eyes are the primary organs of reality contact. Most clients come into therapy blocking in their eyes. The first therapeutic task is to remove the ocular block. This story is best represented in the work of Kelley (1978) and in the classical Reichian approach (Baker, 1967).

These stories contradict each other in fundamental ways. Breaking Away claims that one must activate the client to provoke the armor in order to release it. The Razor's Edge claims the opposite: activating the client leads to traumatic acceleration, dissociation, freezing, and retraumatization. Touch Me in the Morning sees touch as an essential part of the therapeutic process, A Touch of Evil sees it as potentially problematic. The Good Earth claims that working with the feet and legs for grounding is the first order of therapeutic business, while Eyes Wide Shut claims that working with the eyes is. These approaches are almost the precise inverse of each other. Your Chi-ting Heart is a vitalistic, energetic, even metaphysical viewpoint, while Body to Body is primarily a biopsychological viewpoint.

The effect of all these contradictory stories, especially when their claims are presented as wild assertions or with unconvincing evidence, is to undercut each other. Alone, each of them has a certain attraction, and perhaps one might overlook the wild assertions and unconvincing evidence. But given the proliferation of contradictory claims, one's confidence in any is reduced, and one's awareness of the various shortcomings is magnified. One finds oneself sitting under the Rashomon gate hearing stories, one after another, in which one cannot place confidence. In *Rashomon* the commoner listens to the various stories with gusto, steals the baby's kimono, and leaves undisturbed by the various contradictions. In fact, he seems to have had a good time. But the priest and woodcutter are confused and deeply agitated. Their faith in mankind is shaken. I'm with them. I find reading these contradictory stories, especially when asserted wildly or without convincing evidence, maddening.

Summary and Recommendations

As quoted above, reviewers of *Rashomon* have differed on its meaning. The casual opinion seems to be that the movie demonstrates a relativist position towards reality: truth cannot be known because it inherently depends on perspective. (for instance, Berardinelli, 2004) That is an interesting question in its own right, and the application of this idea to psychotherapy has been much discussed in the relational school of psychoanalysis. There, hermeneutic and constructionist accounts of reality are common.

That is not, however, the meaning that Kurosawa, the director, gave to Rashomon. As noted in the epigraph, he said it was about the inability to tell the truth because of the need to assign to ourselves positions of inflated importance. Indeed, as I discussed the various stories told by the bandit, wife, samurai, and woodcutter, I noted how each assigned to themselves the most noble and important positions. What would be the parallel in the body psychotherapy literature? Would not the parallel be that when body psychotherapists create stories about the therapeutic process, they are inevitably subject to distortions deriving from a need to elevate the importance and nobility of themselves and of their theories? In *Rashomon* the bandit asserted that he was so virile, so potent, that the woman could not resist, in the end submitting to his rape willingly. When an author loads on the wild assertions, do we see a similar notion – the ideas are so potent that the reader will submit to them willingly without the need for evidence?

As noted above, at the end of *Rashomon* Kurosawa did not produce a satisfactory resolution. Suddenly he introduced an abandoned infant. The woodcutter took it home to raise as his child. His simple act of human goodness served to resolve the problems presented by the movie. Indeed, the rain stopped and the sun appeared! But as noted above, the resolution was artificial and unconvincing. If I now introduce a resolution to the problems I have identified, will it be as artificial and unconvincing as were Kurosawa's? In the epigraph, Kurosawa said that ego inflation is very difficult to eradicate, the most difficult of all personal flaws. Can a few quick recommendations in a paper like this solve the problems I have been discussing in the body psychotherapy literature? No. Rather, it seems to me that the best one can do is bring attention to the problem and reiterate fundamental principles of scientific knowing.

In a presentation at the 1998 USABP conference in Boulder, I used the simile that knowledge about body psychotherapy was like a three-legged stool. One leg represented knowledge gained by thinking about oneself and one's own process, doing one's own introspective work. A second leg represented knowledge gained by observing one's clients carefully and thoughtfully. And the third leg represented knowledge gained through systematic, objective studies, such as experiments. I illustrated such a stool using three wood dowels four feet long by 1/4 inch in diameter, tied together with string one foot from the end. Even this flimsy three-legged dowel stool could hold quite a heavy load of theory. I put a copy of the Proceedings of the conference atop the three dowels. They flexed, but held it easily. Take away even one of the legs, however, and the stool will support nothing. When I broke one of the legs, the stool and Proceedings came crashing down.

I have no resolution to offer beyond that. The stories of body psychotherapy need to be supported by all three legs of that stool, or they will not stand. One cannot seize the secrets of life by the throat, one must build up knowledge slowly. Each piece of knowledge is like a brick. It must be fitted with hundreds, perhaps thousands of other pieces, before something useful is created. There is no trick or recommendation to make, except to challenge oneself to be sure that one's stories are well supported, not just collections of wildly asserted claims, circular reasoning, and unconvincing evidence. If we do that, then perhaps we will spend less time sitting in confused agitation under the Rashomon gate.

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Biography

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Neuroscience Book Review: Part II
Affective and Developmental Neuroscience

Aline LaPierre, Psy.D.

Abstract

This is the second of a three part review. In our last issue, Part I: Understanding the Mind-Brain and Nervous System, we presented a primer and an orientation to current foundational books that map the essential principles of neuroscience. In this issue, Part II: Affective and Developmental Neuroscience, we look at Jaak Panksepp and Antonio Damasio, at Allan Schore's regulation theory, and Daniel Siegel's interpersonal neurobiology. Finally, in our next issue, Part III: Neuroscience in Somatic Clinical Application we will explore neuroscience in relation to somatic psychotherapy.

This review gives a general overview of the contributions of four important thinkers who have each published landmark books: Jaak Panksepp, Antonio Damasio, Allan Schore, and Daniel Siegel. These authors are remarkable because of the breath and detail of their knowledge which allows them to make important creative interdisciplinary bridges between neurobiological, behavioral, affective, and cognitive concepts.

The advent of modern neuroscience highlights the inquiry into how mind is materially supported by and subject to natural law. An interesting dilemma has existed between the materialist worldview that the evolution of life on earth is solely the result of complex chemical reactions and the humanistic worldview that our ability to think about material reality transcends that reality and that the cultural matrix of the arts and sciences forms an invisible cosmology which affirms the priority of mind over nature. In the movement towards the conciliation of this two-fold mystery, affective neuroscience seeks to understand how environmentally acquired internal representations in the present world interact with genetically dictated neurodynamics built out of the evolutionary experiences of worlds past.

It is only recently, specifically in the past two decades, that the development of new research tools has led to techniques that open the way to link specific behaviors and their corresponding brain activity. In an endeavor to map the neural architecture that supports consciousness, several approaches have been developed:1) 3-D reconstructions of a living person's brain that permits the observation of the effect of brain lesions on behavioral or cognitive tasks; 2) positron emission scan (PET) and functional magnetic resonance imaging (fMRI) that reveal increased or decreased energy-consuming activation in the neurons allowing new levels of hypothesis and validity assessment; 3) measurements of the changes in electrical conductance response and changes in electric potentials and related magnetic fields in the skin and scalp; 4) study of the molecular events within individual nerve cells and the relation of those events to the composition and action of specific genes. In the developmental arena, increasing numbers of studies concurrently measure brain, behavioral, and bodily changes in both members of the infant-mother dyad. Researchers can now literally observe brain-to-brain interactions between a mother and her infant; they can look at the synchronized changes between them as they are processing emotional states with each other and take measures on both of them to study these changes at the autonomic level. These exciting new technological advances provide data for building progressively more precise models of the brain and of the brain in relationship.

According to Panksepp, the central tenet of affective neuroscience is that emotional processes arise from neurological events to provide a sense of internal values, causality, category, and classification upon which mammals and humans *alike* base their behavior. Core emotional states, which we experience as our deep instinctual nature, provide self-referential value-coding mechanisms that allow us to categorize events happening in the external world and organize our behavior. Panksepp suggests that the mediation and modulation of subjective feelings, which make up our self-representation systems, arise from underlying cognitive and emotional potentials based in material events at the neural level. It is by looking at the categories of emotive behaviors along with analyzing their movement in the brain circuitry from which they arise, that the affective and developmental neuroscientists are progressing in sorting out the various processes that make us who we are.

Affective Neuroscience

The living, beyond any word language and independent of it, has its own expressive language.

–Wilhelm Reich

Affective Neuroscience *by Jaak Panksepp.* Oxford University Press, 1998.
The Feeling of What Happens *by Antonio Damasio.* New York: Harcourt, 1999.

Looking for Spinoza *by Antonio Damasio*. New York: Harcourt, 2003.

Jaak Panksepp and Antonio Damasio both write about affect as a central organizing process and both emphasize the centrality of the body and the fact that "our emotional feelings reflect our ability to subjectively experience certain states of the nervous system" (Panksepp1998, p. 9). Panksepp views the fundamentally affective nature of the human mind as comprised of basic, instinctual, and motivational operating systems anchored in a biological imperative. Damasio

views affect as *the cognition of bodily states*—a feeling is not "an elusive mental quality…but rather the direct perception of a specific landscape: that of the body."

Jaak Panksepp: Affective Neuroscience and the Foundations of Human and Animal Emotions

> *My personal conviction is that we shall really not understand the brain or the nature of consciousness until we begin to take emotional feelings more seriously, as internally experienced neuro-symbolic self-referenced representations of major evolutionary passages, in the animals that we study.*
>
> *—Jaak Panksepp*

Steeped in ethology—the study of animal behaviour—neurobiologist and psychiatrist Jaak Panksepp's stated goal is to "attempt to clarify the interrelations between brain and mind as expressed in the fundamental emotional processes that all mammals share." Dedicating his book to the "new synthetic psychology" of the future, and aware that many generations of careful work are still needed before we have a true and lasting science of emotions, Panksepp aspires to provide a cohesive map to guide future navigations. A rich interdisciplinary thinker, he makes a parallel between the opening of commerce routes between Europe and the Far East a millennium ago, and the needs of our present state of fragmentary knowledge: the recently evolved rational and cultural mind (Europe) and the ancient networks of our brains (Far East) need trade routes to construct intellectual commerce and share in each other's wealth.

Affective Neuroscience, which is probably the best introductory textbook to the field, builds jointly on ethology, evolutionary psychology, neuroscience, behaviorism, cognitive sciences, sociobiology, clinical psychology, and psychiatry. It is divided into three parts: 1) Part I sets the stage, covers conceptual background issues and provides a relatively user-friendly summary of neuroanatomy, neurophysiology, and neurochemistry; 2) Part II identifies the primitive basic emotional and motivational processes such as how sleep and dreaming organize emotionality in the brain, the reward and reinforcement self-stimulating systems which control foraging, seeking, and positive expectancies, and how the brain maintains certain consistencies such as energy and water through mechanisms of pleasure and aversion; 3) Part III offers perspectives on the more subtle social emotions, in particular the emotional cascade within the reproductive-development phase of the life-cycle, starting with sexuality, nurturance, separation distress, and play. As the book progresses, Panksepp approaches increasingly difficult subjects and culminates with the intricate matter of self and higher mental processes.

This book presents an original integrative form of psychobiology which, possible only because of the recent growth of neuroscience, appreciates how "our highest aspirations remain tethered to the values elaborated by ancient parts of our animal brain." Throughout the book, he blends animal and human issues as a strategy toward new scientific insights, believing that it is more important to recognize our similarities with the animals than to pursue our differences. I am reminded in this of the Native Americans who have always felt a spiritual bond with the animals and looked to them for wisdom and insight, believing that every animal is a teacher, a respected equal whose unique traits provide a model for human behavior. Panksepp shows that in spite of a significantly more developed neo-cortex and the addition of language, and social and cultural learning, human instinctual neural circuitry and neurochemistry closely parallel that of mammals. It is, he believes, by understanding the neural basis of animal emotions that we come to clarify the primal sources of our own. According to Panksepp, the mammalian brain not only internally represents the outside world in symbolic codes based on its sensory-perceptual systems, but in addition, also has intrinsic *emotional operating systems* that govern psychobehavioral strategies for coping with the ever-present evolutionary challenges. He believes that it is in these ancient operating systems that emotions arise which are, in all probability, internally felt by animals in ways not so different from humans. Looking at underlying behaviors such as mating, nurturing, or defending territory, that do not require previous learning and evolved long before the emergence of the human neocortex, it becomes apparent that because of our extensive common evolutionary journey, we share with mammals many basic psychoneural processes. In spite of our aspirations to transcend our animal nature through our higher cortical abilities, Panksepp confirms that powerful animal forces survive beneath our cultural veneer. It is, he notes, this ancient animal heritage that makes us the intense, feeling creatures that we are.

The varieties of emotional systems in the brain

The prelinguistic processes that govern emotional organization make it difficult to find language to speak about emotions. In *Affective Neuroscience*, Panksepp explores the fundamental sources of the genetically ingrained affective potentials of our brains. In his attempt to discover how emotions are generated, Panksepp recognizes seven emotional operating systems and considers each system in depth, using excellent diagrams and research summaries to discuss implications and provisional conclusions. Panksepp's emotional operating systems can be divided into two sets. First, a primordial set of three primitive emotions and motivations that mature soon after birth, are basic to survival, and are identified by the fact that localized brain stimulation consistently evokes these same emotional displays in experimental animals. These include a SEEKING system to oversee energetic search, investigation, and goal-directed behavior; a biting and affective attack RAGE system easily aroused by thwarting and frustrations; and a FEAR system of flight and escape behaviors designed to minimize the probability of bodily destruction. Secondly, there is a more sophisticated special-purpose socioemotional set that depends on the creation and maintenance of social bonds: a distress vocalization

and separation PANIC system which is especially important in the elaboration of social emotional processes related to attachment; a LUST system designed to mediate sexuality; a maternal CARE system that assures that the important events of birthing and the ensuing necessary nurturance are not left to chance or to the vagaries of individual learning; and a roughhousing PLAY system. The names of the systems are capitalized to distinguish their neuro-functional referent from ordinary usage. Separate chapters are devoted to the exploration of each of these systems. Panksepp regards these seven emotional operating systems, which come close to what we might call "instincts," as regulatory mechanisms emerging from the intrinsic potentials of the nervous system in order to coordinate brain organization and rapidly instigate effective survival behavior. Essentially "chaotic" in the mathematical sense of non-linear dynamics, he theorizes that the emotional operating systems may act as "strange attractors" that exert a "neurogravitational force" on the activities of the brain within the neural networks. Of particular interest to somatically-based psychotherapists is the fact that these emotional operating systems have prototypical facial expressions, bodily postures, gestures, and behavioral actions. This supports the body-centered clinical stance that the embodiment of a feeling can be accomplished by encouraging a client to enter the world of gesture, breath and movement, to fully take a stance, or explore a strong facial expression. While some of the emotional operating systems Panksepp describes are predictable, others radically re-formulate our established categories of affect leading to surprising implications.

Engagement and excitement: the SEEKING system

To give a detailed example of a primitive system, the SEEKING system is seen to govern interest, curiosity and the search for meaning and is propelled by states of curiosity, excitement and pursuit. Its prototype is foraging, the ability to eagerly anticipate what we need for survival like the search for such resources as food, shelter, or a mate. In animals, sniffing and persistent forward locomotion are indicators that the SEEKING system is active. In humans, seeking behaviour can range from attempting to satisfy hunger by looking in the refrigerator to addressing abstract needs such as the search for meaning as seen in questions like: "Where are we 'going'?" Critical to adaptive survival, the SEEKING system energizes and invigorates an individual's relation to the environment by providing the motivational force to move forward, to follow the scent in the quest for new resources. A good example of a modern application of the SEEKING system is psychotherapy which focuses on learning, searching for meaning, and making new connections.

The "power switch" that turns on the SEEKING system is dopamine. Responsible for our sense of self-empowerment, dopamine is the visionary chemical behind the high that accompanies the idea of starting over, opening us to the optimistic positive thinking necessary for constructive change. Linked to the pleasure of discovery and the drive to formulate, dopamine has a similar chemistry to cocaine and a similar effect: it triggers states of high arousal and focus. Dopamine appears to be discharged during REM sleep, dream states, and phenomena such as the startle reflex which is linked to the physiology of orientation. Interestingly, Freud, who used cocaine, explored dreams and was driven to investigate the psyche, both indications of an activated SEEKING system.

There is a delicate balance to strike between this system's assets and its possible imbalances. Dysregulation of the SEEKING system can lead to manic and unstable states of mind. For example, excessive dopamine activity can cause paranoid schizophrenia while anti-psychotic drugs, which reduce dopamine activity at specific receptors sites, inhibit not only the negative but also the positive SEEKING behaviours. Without this system, we experience lack of hope, we feel flat, or fixed in a never-ending process of mourning. Over-activation of the SEEKING system can become a seductive trap: dreaming, investigating, pioneering, journeying are activities that generate high levels of pleasure and satisfaction that increase the sense of autonomy but can also work in the service of denial by turning attention away from what is painful and leading away from social contact.

The construction of social bonds: the PANIC system

We are a long way from reptilian times when young were left to fend for themselves. At present, Panksepp writes, we live in a child-oriented era. Research tells us that children who come from loving and supportive families, and who are given age appropriate educational challenges operate from a "secure base" that allows for intimacy and trust, and gives a child the opportunity to become a vital, self-regulating adult. "But what is" Panksepp asks, "the nature of this loving and supportive "secure base" that psychologists speak of?" It is a recent discovery that the brain contains emotional systems to directly mediate social bonds and social feelings. The importance of social bonding became apparent in the studies by René Spitz in orphanages demonstrating that babies who received no caring human contact often died prematurely. Friendship, family attachment, or romantic relationships are manifestations of social bonding exhibiting an emotional span ranging from intense attraction to separation-induced despair and even death.

How attachment needs arise in the brain is emerging from the analysis of one particular behavioral measure, the vocal "crying" triggered by social isolation in young mammals. Also labelled "isolation calls" or "distress vocalizations," there is an intrinsic neural system in the brain, which Panksepp calls *the PANIC system*, that mediates this strong emotional response. Along with separation induced distress vocalizations, the behavioral and physiological changes exhibited by all young mammals after a short period of separation include decreases in body temperature, in sleep, and in growth-hormone secretion, along with increases in brain arousal, behavioral reactivity, sucking tendencies, and corticosterone secretions. Distress vocalizations are highly arousing and powerfully motivating to the caregiving drive of

the maternal CARE system. If no bond exists, the sound of distress calls can be perceived by a parent as an irritation that can lead to child abuse.

It is theorized that the arousal of PANIC circuits is one of the major sources that leads to social bonding; when PANIC circuits are aroused, animals seek reunion with those who help create a feeling of a "secure neurochemical base." Social bonding, Panksepp writes, goes hand in hand with the experience of loneliness, grief, and other feelings of social loss: "To be alone and lonely, to be without nurturance or a consistent source of erotic gratification, are among the worst and most commonplace emotional pains humans must endure"(p. 263). It seems that the PANIC system is closely intermeshed with the attachment system and that love is in large part the neurochemically based positive feeling that negates loss, aloneness, and loneliness. Panksepp amplifies this fact by indicating that "all neurochemistries that normally inhibit separation distress may also promote bonding." The research highlights the primal biological nature of certain forms of love and friendship.

In a remarkably similar outcome across studied species, the PANIC system arises from the mid-brain, in an area very close to where physical pain is generated; it seems to have evolved from pain centres and establishes that separation distress is related to perceptions of pain. Brain chemistries activated by caring and supportive social interaction include neuropeptides such as oxytocin and prolactin, as well as endogenous opioids such as endorphins. The fact that touch is an important factor in the release of opioids is abundantly confirmed. One of the most powerful sensory signals of care is direct contact, and "contact comfort" appears to activate endogenous opioid systems that reinforce the social bond. Panksepp notes that "a substantial amount of social motivation emerges from the pleasures of touch, and the pleasure of play is strongly dependent on the sensation of touch." Animals stop crying rapidly when gently touched and eye closure and settling down behaviors are common responses to being held. Interestingly, opioids mimic the action of heroin in quelling feelings of social isolation and it appears that nicotine, antidepressants, minor tranquilizers, and some sedatives can relieve separation distress.

Chronic arousal of the PANIC system has long-term consequences: panic attacks, autism, despair, depression, seeking out any comfort that can be found, poor or abusive mothering, lifelong problems in social adjustment. Milder forms of separation distress can lead to social phobias such as chronic feelings of insecurity when interacting with others. Depression is seen to be the result of an inhibited despair following a period of intense vocalization; to optimize chances for survival, and to conserve fast depleting reserves, a lost offspring's silent despair prevents the helpless organism from wandering further from its source of safety. Clearly, all mammals need close interaction with others to maintain emotional equilibrium. In sum, Panksepp theorizes, "social bonding ultimately involves the ability of young organisms to experience separation distress when isolated from social support systems and to experience neurochemically mediated comfort when social contact is re-established"(p.274).

To conclude, Panksepp's theories, which are based on carefully collected and analyzed data, present a compelling account of the fundamental neurological principles of emotions. Panksepp's contributions link cognition and behavior with their neurological and neurochemical structures to provide new insight into the dynamics of the mammalian brain as the motivational source of our emotions. It offers a vital appreciation of the core structures of the brain as homologous in all mammals and consequently, it reunites our human psyche with the various conscious and unconscious states resulting from our common evolutionary journey with the animals.

Antonio Damasio: Body, Emotion, and Feeling in the Making of Consciousness

> *Feelings are not a mere decoration added on to the emotions, something one might keep or discard. Feelings can be and often are revelations of the state of life within the entire organism–a lifting of the veil in the literal sense of the term.*
>
> *–Antonio Damasio*

Antonio Damasio's intent to move toward the development of an anatomy of consciousness reveals how fascinating we really are. Stepping into the "light of consciousness" is Damasio's metaphor for the birth of the knowing mind and the coming of the sense of self into the world of the mental. Following his landmark book *Descarte's Error* (1994), in which he demonstrated that emotions are not a luxury, but rather that they are essential to rational thinking and decision making, *The Feeling of What Happens* addresses the nature of body and emotion in the making of consciousness and outlines the role of emotion and feeling in the construction of self. Free from jargon and with careful summaries and restatements, *The Feeling of What Happens* is a compelling neurobiological account of the embodiment of feeling states and how they form the basis of self. Feelings, writes Damasio, along with their essential ingredients–pain and pleasure–are not well understood in biological and specifically in neurobiological terms. This is, he notes, "all the more puzzling considering that advanced societies cultivate feelings shamelessly, and dedicate so many resources and efforts to manipulating those feelings with alcohol, drugs of abuse, medical drugs, food, real sex, virtual sex, and religious practices."

Damasio's main theme is clear: He wishes to elucidate "the connection between emotion and consciousness, on the one hand, and between both of these and the body, on the other…." From Damasio's neurobiological perspective, the problem of consciousness presents two enigmas: First, there is the issue of how the brain engenders internal images, how it "makes neural patterns in its nerve-cell circuits and manages to turn those neural patterns into explicit mental patterns" which he calls "movies-in-the-brain." Movies-in-the-brain constitute the highest level of biological phenomena and involve the use of qualia or fundamental sensory qualities. Secondly, he wonders how, in parallel with generating movies-in-the-

brain, the brain also engenders a sense of "self-in-the-act-of-knowing." Although, from a biological perspective, these two aspects are nested one within the other, *The Feeling of What Happens* focuses squarely on the latter, the elucidation of the problem of self-in-the-act-of-knowing.

The innermost inspiration of the book is that consciousness is rooted in a feeling, a special kind of feeling: For Damasio, "consciousness *feels* like a feeling," *a feeling of knowing*. Remembering why he began to think of consciousness as a feeling, he writes: "Consciousness feels like some kind of pattern built with the nonverbal signs of body states."

Damasio, a neuroscientist who is also very much a humanist, approaches the still shadowy country of consciousness grounded in years of clinical research with patients who are either epileptic, or have suffered brain damage through strokes, disease, or traumatic injuries, often studying consciousness from its absence. Clinical experience has taught him that consciousness and emotion are not separable. Although consciousness can be separate from wakefulness or low-level attention, consciousness and emotion cannot be taken apart from each other. When consciousness is impaired, so is emotion.

For the purpose of investigating the neural underpinnings and distinctions among emotion, feeling, and consciousness, Damasio has developed a processing continuum which moves from a state of emotion through a state of feeling, and on to a state of "feeling made conscious." These three states are part and parcel of the *mechanism of life regulation* which he sees as unfolding on four interactive levels: *basic life regulation, emotions, feelings,* and *high reason* explained as a "customized plan of response formulated in conscious images and executed as behavior." 1) At the first, most basic level, simple patterns of response, such as reflexes or metabolic regulation, provide the organism with a survival-oriented homeostatic regulation whose purpose it is to avoid any loss of bodily integrity that could be a harbinger of death; these simple basic regulatory patterns promote the positive seeking of energy sources, shelter, or sex. 2) At the next, slightly more complex level, Damasio places emotions whose job it is to make the connection between the first level of basic survival-oriented homeostatic regulation and the "objects" within our autobiographical experience. Emotions, through such powerful learning mechanisms as conditioning, become value-laden and "are inseparable from the idea of reward and punishment, of pleasure or pain, of approach and withdrawal, of personal advantage and disadvantage," and inevitably are linked to the creation of good and evil. Although Damasio approaches emotion from a perspective relatively uninfluenced by psychoanalysis or infant observation, he nevertheless hypothesizes a primitive unconscious self, altered by the interactions with its objects. This hypothesis, though a fundamental tenet of object relations theory, is apparently radical for neuroscience. 3) At a third increasingly complex level, basic sensory patterns of pain and pleasure, together with emotions, develop into mental images and become feelings. 4) Lastly, in a fourth stage, organisms who are capable of knowing that they have feelings—that is who are equipped with consciousness—reach a final level of regulation. Through the agency of feelings, emotions enter and permeate the thought process and thus reach consciousness. Linked by feelings, emotions and consciousness are part of a hierarchical regulatory continuum devoted to enhancing the organism's adaptive responses and survival abilities. From this premise, Damasio continues on to delve into issues of consciousness and how the self becomes known.

What are feelings made of, what are feelings the perception of, how far behind feelings can we get? In *Looking for Spinoza,* Damasio continues his work with feelings, again making what they are, how they work, what they mean, the center of inquiry. Based on evidence not available when he wrote the previous two books, the main purpose of this book is to present a progress report on the nature and human significance of feelings in the hope of bringing forth new ideas on the subject. "Imagine," he writes, "meeting someone who, as a result of damage to a certain location of his brain, became unable to feel compassion or embarrassment…yet could feel happy, or sad, or fearful just as normally as before the disease had set in" (p. 5). It is such encounters with the vagaries of neurological illness that give Damasio pause and stimulate his reflection on how the loss of a specific sector of brain circuitry brings with it the loss of specific kinds of mental events. Surprising to him is the fact that when patients lose the ability to express certain emotions, they also lose the ability to experience the corresponding feelings. Strangely, the inverse is not true: Some patients who lose their ability to experience certain feelings can still express the corresponding emotions. Intrigued by this strange asymmetry of relation between feeling and their antecedent emotions, Damasio now labors to elucidate the "web of mechanisms that allow our thoughts to trigger emotional states and engender feelings."

Damasio is encouraged to articulate his evolving view of feelings by his recent re-connection with the writings of Spinoza, who died in 1677, and with whom he finds a pleasant resonance. In opposition to his times, Spinoza proposed that the power of affect is such that the only hope of overcoming an irrational passion is to overpower it with a stronger *positive* affect; he recommended that we fight a negative emotion with a reason-induced positive emotion and not with pure reason alone. Spinoza's dissent with the prevailing Cartesian mind-body split of his time makes him stand out in a sea of conformity which lasted several centuries. He believed that "both mind and body were parallel attributes of the same substance," and held that "the human mind is the idea of the human body." Spinoza heartens Damasio's own conviction that "mental processes are grounded in the brain's mappings of the body, collections of neural patterns that portray responses to events that cause emotions and feelings." Spinoza built a philosophy based on an architecture of life regulation in which organisms "come into being with the capacity to regulate life and thereby permit survival, and where the striving to achieve a 'greater perfection' of function causes great joy." Spinoza's relevance to neurobiology stems from his preoccupation, contrary to his time and the thinking of his contemporaries, with seeking the biological grounding of the relation of human beings to nature. In opposition to Descartes, Spinoza suggested that the norms that govern our social and personal conduct should be shaped by a deeper knowledge of the God which manifests as Nature within ourselves.

Damasio weaves his fascination with Spinoza into the fabric of this book, thus anchoring himself in the history of a centuries-long struggle to bring the body into rightful relation to the mind.

Identifying with Spinoza, Damasio believes that if we care to look into the mystery of the mind-body, "there is more knowledge than meets the eye, if only the eye is theoretically free to see." He delves head-on into the mind-body problem. Refreshingly, he rejects outright the approach of substance dualism which splits the mind to one side and the body to the other. Are mind and body two different things or just one, Damasio asks? And if they are not the same, "are mind and body made from two substances or just one?" And if they are separate, does one come before the other? "Does mind come first and cause the body and its brain to exist, or does body come first and its brain cause the mind?" Damasio's patients are his teachers. Reflecting on the events that precede epileptic seizures, he noticed that "when the ongoing brain mapping of the body was suspended, so was the mind. In a way, removing the mental presence of the body was like pulling the rug from under the mind." He also noticed that the presence in the mind of the body's interior, namely the viscera and internal milieu, seems to be specifically useful in grounding the mind. He notes that although neurobiology has clearly revealed that mental phenomena are dependant on specific systems of brain circuitry, the existing evidence still provides little incentive for reflection and the resulting interpretations remain highly contested. He notes that in the attempt to close the original mind-body divide, the split has simply shifted its location; while new lines of inquiry now link the mind-brain, the "body-proper" is still outside the inquiry. By placing the mind-brain on one side and the "body-proper" on the other, the role of the body is still left out. Damasio's understanding of brain-mind-body is in process, but in *Looking for Spinoza*, he outlines useful principles that begin to reconcile the theoretical split that keeps science blind:

- The body-proper and the brain form an integrated organism that interacts fully and mutually via chemical and neural pathways.
- Brain activity is aimed primarily at assisting with the body's life processes by coordinating internal and external interactions. Brain activity is aimed at the body's survival and well-being.
- In complex organisms, the brain's regulatory operations depend on the creation and manipulations of mental images in the process we call mind. Images in the brain that relate to the exterior include visual, auditory, tactile, olfactory and gustatory images. Pain and nausea are images that relate to the interior. The anticipation and planning of future responses also require images.
- Mapping the organism is not a passive process. The structures involved in forming the maps have their own say and are influenced by other brain structures.

From Damasio's perspective, the brain produces two types of images: *images from the flesh* monitoring body structure and visceral states along with the chemical parameters in the organism's interior, and *images from special sensory probes* geared to make note of possible impingements upon the organism. Thus, foundational images in the stream of mind pertain to body events expressed in neural patterns of activity and inactivity. In the final tally, writes Damasio, "what ends up being mapped in the sensory regions of the brain and what emerges in the mind, in the form of an idea, corresponds to some structure of the body…." There currently continues to be a major gap in understanding how neural patterns become mental images; neural patterns are described with the tools of neuroanatomy, neurochemistry, and neurophysiology, while mental images are described with the tools of introspection. How to get from the former to the latter remains the speculative frontier of the work on consciousness.

As with Spinoza, Damasio's investigation of the nature of emotions and feelings and the relation of mind to body carries a broad, humanistic goal: "An understanding of the neurobiology of emotions and feelings is a key to the formulation of principles and policies capable of reducing human distress and enhancing human flourishing." In *The Feeling of What Happens*, Damasio conveys a hopeful message: if civilization's mandate is to improve human existence, and if civilization is the consequence of consciousness, then it is through the agency of consciousness that we have the means to improve civilization and human existence. We have no blueprint to follow, Damasio muses, and it is only by seeking to know about consciousness that we can hope to support the fulfillment of its homeostatic regulating role.

The Neurobiology of Early Life

Affect Dysregulation and the Disorders of the Self by Allan Schore. New York: W.W. Norton, 2003.

Affect Regulation and the Repair of the Self by Allan Schore. New York: W.W. Norton, 2003.

The Developing Mind: Toward a Neurobiology of Interpersonal Experience by Daniel J. Siegel. New York: Guilford Press, 1999.

Studies of child-caregiver relational processes and their effects on the developing brain are leading to a deeper comprehension of the dynamics and essential significance of affective phenomena. These studies demonstrate that the maturation of the infant brain is largely influenced by the environment and is therefore experience-dependent, thus emphasizing how the infant's expanding socio-affective functions are critically influenced by the affect laden relational experiences offered by the primary caregiver. Developmental research suggests that the mother's body and affect act as

regulators, permanently shaping the emerging self's capacity for organization. Interestingly, the caregiver-infant interactions are mostly hidden and nonverbal—the mother senses and attunes to the nonverbal affective expressions of her infant's psychobiological states and by doing so, helps her child modulate its internal states. When misattuned, these interactions, which permanently shape the emerging self's capacity for self-organization, leave enduring and difficult to modify vulnerabilities in the brain. Consequently, the emerging neuroscientific understanding of early development emphasizes the fundamental significance of affect regulation. This new vision is replacing old notions of mind and body dichotomy, supplanting them with an appreciation for the rich web of synergistic socioaffective relations that underlies healthy development.

Allan Schore's Regulation Theory: The Art and Science of Optimal Balance

> *The relationship between the dynamics of early development and the ontogeny of the emergent function of self-regulation is perhaps the most fundamental problem of development.*
>
> — Allan Schore

Allan Schore, a pioneer in the study of the development of the self, is a theoretician with a deep interest in biology, who integrates the data and models from a wide range of diverse disciplines such as neurobiology, behavioral neurology, behavioral biology, sociobiology, social psychology, and developmental psychology. He weaves their numerous threads into a coherent tapestry that ties biological structure to its psychological function and constructs an overarching model of social and emotional development which he calls regulation theory. Schore's interest lies specifically in the social emotions, how they develop, and how they are influenced by the attachment relationship. His research shows how traumatic childhood experiences that leave a child unable to regulate the intensity of strong emotions are one of the overlooked roots of violence, of borderline and antisocial personality disorders, and at the very least, of a predisposition to violence.

In his groundbreaking book Affect Regulation and the Origin of the Self (1994), Schore argues with thorough, multi-disciplinary detail, that the early social environment, mediated by the primary caregiver, profoundly and inescapably influences the evolution of the structure of the infant's brain. He shows how the maturation of the right orbitofrontal cortex, the executive regulator of the right brain, is continuously influenced by the mother's regulation of the infant's bodily-based internal arousal states via psychobiological attunement, and is critical to the child's future capacity to self-regulate emotions, appraise others' emotional states, and manage stress. Schore argues that John Bowlby's attachment theory, a theoretical model that includes psychological and biological levels, has spawned one of the broadest, most profound and creative lines of research in twentieth century psychology. Schore anchors his thinking in Bowlby's work to demonstrate that the capacity for attachment is at the core of the social experience. In the psychobiology of attachment, the mother not only regulates her infant's behavior, but also its physiology. Attachment is now viewed as originating in the intimate mother-child experiences and serving the adaptive purpose of securing the mother's capacity to regulate her baby's distress and joy states. Using attachment theory, neurobiology, and infant psychiatry as primary models, Schore draws widely on psychoanalytic theory, including object relations and self-psychology, to put forward a comprehensive theory of affect which charts the development of emotional capacities as they evolve to increasing levels of complexity.

Lessons already learned

To set the stage for Schore's two new books, endearingly called the "red" and the "blue" books because of the color of their covers, it might be useful to review some of the valuable principles laid out in the 1994 "green" book, Affect Regulation and the Origin of the Self, that illustrates how the growth of the self is intertwined with the growth of the brain within the context of relationship:

Development is interactive in nature, essentially representing a number of sequential, mutually driven infant-caregiver processes that occur in a continuing dialectic between the maturing organism and its changing environment.

Development is more than the study of changing functions; it is a progression within a structure-function relationship. The infant's structure is continually organizing, disorganizing, and reorganizing into more complex structures. As more complex structures evolve, emergent new functions appear. Development is not a simple continuity, but a series of reorganizations within hierarchies, feedback loops, and evolutionary layers which allow for increased complexity, stability, and adaptivity. The brain is not a thing but a dynamic embodied process in which the whole is more than the sum of its parts.

The early environment is a social environment in which the mother is the primary social object. The mother provides a stimulating or inhibiting modulatory function, essential to the experience-dependent maturation of her child's developing biological and neurological structures.

Affect becomes adaptively self-regulated. It is of current interest to understand how the infant's affect, which is initially regulated by the mother, becomes increasingly adaptively self-regulated. Adaptive self-regulation, which is active from the molecular to the social levels, could elucidate the hidden processes of our psychobiological development.

These developmental progressions are dependent upon certain neurological principles:

The structure of the brain is literally built on a daily basis at a stupendous rate, going from 400g at birth to 1000g at 12 months. More than any other organ, the growth and function of the brain is highly dependant upon the continued availability of its energy substrate, the caregiver. As the cells differentiate and form connections, a dramatic change in energy production and output accompanies the increasing complexity of structure and the efficiency and integration of function.

The regions of the brain in most rapid growth are the ones most susceptible to external stimulation. The growth of the brain occurs in critical periods, with different regions of the infant's nervous system maturing at different periods and the individual layers in each cerebral lobe developing at their own rates.

The infant brain becomes hierarchically organized in horizontal levels: Over discrete stages of development, each higher level re-represents and expands at a more complex level of organization those functions present in the previous, more primitive level of organization. Later developing higher cortical levels come to inhibit earlier developing subcortical levels.

The highest level of organizational complexity occurs in the prefrontal cortex. This cortex, which performs an inhibitory function, develops postnatally. Because the caregiver serves as the external regulator of the infant's endocrine and nervous systems, the postnatal environment has an ongoing effect on gene expression and experientially shapes the genetic potential. On one hand, the neurohormones and neurotransmitters act as the internal clocks that coordinate the timing of developmental processes, on the other, they regulate gene transcription. Thus the external relation with the mother can directly affect the regulation of internal genetic events.

Structures and functions that are adaptively suitable at one stage of development, are not suitable at later stages. These transient structures that are adaptive only for a restricted phase of development require a mechanism whereby they can be eliminated, suppressed, or reorganized. This mechanism, responsible for eliminating excess axons and pruning overproduced synapses, is called parcellation. Evidence shows that the development of the nervous system follows a general progression: a) an initial overabundant production of synaptic connections, b) a competitive selection of connections that are most effectively entrained to the environment, and c) a redistribution of input closely followed by the appearance of an emergent function. This "Darwinian" psychobiological process suggests that the stabilization of the organism is essentially driven by the environment.

It is now known, Schore writes, that the immature brain of a neonate is an entirely different brain than that of an adult. The neonatal cerebral metabolic rate that sustains cortical function is very low and the higher center of young brains are able to process only a small amount of information per unit of time, and this occurs in circuits that function more slowly than those of adults" (p.10). In the very early years, conscious explicit memory is not yet in place because of the immaturity of the hippocampus, whereas the basal ganglia and the amygdala are well developed at birth. Consequently, it is theorized, implicit memory is in place for experiences such as fear, somatic symptoms, or patterns of interaction derived from the mother-infant relationship. It is not until eighteen months of age that the hippocampus comes on line, and this parallels the onset of verbal activity.

The brain of the human infant lacks some of the neurological circuits necessary for the ongoing differentiation between what is self and what is other. Freud described the infant as floating in a state of "oceanic bliss," without awareness that there is a limit to its own being. Forged out of the neurological impressions that assemble in bits and pieces, the sense of an outside reality joins the infant's inner experience. James Grotstein has eloquently expressed how caregiver functions "unfold in an intricately coordinated series of contacts with the maternal-social environment—all in an orchestration of specifically timed phases of availability. . . that at first soothe, validate, and confirm, and then stimulate, challenge, and encourage" (p.xxi). These sequential interventions appear to be absolutely necessary for neural development and essential for the infant's emotional development to occur. The child's attainment of an efficient internal regulation capacity is absolutely dependant on the emotional responsiveness, the attunement, of the mother. The motive force of the attachment process is an interactive series of psychobiological attunements which consists of visual and emotional contacts interspersed within separations and reunions. When mediated successfully, this leads to a secure attachment which facilitates the internalization of the mother's regulatory function. Early deprivation in maternal care retards the experience-dependent development of attachment and self-regulation.

New developments

Schore's two new companion volumes contain a combination of already published contributions along with new material that continues to synthesize and update current experimental data, theoretical concepts, and clinical observations. They expand the foundation and scaffolding of his overarching model of socioemotional development to present a comprehensive articulation of regulation theory as it has evolved since the publication of Affect Regulation and the Origin of the Self. Schore's interest in the first two years of life is directed very specifically at how regulation impacts the emotion generating limbic system and the brain's right hemisphere. The focus on regulatory phenomena, Schore wrote in 1994, "represents a powerful central linking concept that could potentially elucidate the 'hidden' processes in development and thereby organize what appear to be disparate bodies of developmental knowledge" (1994, p.7-8). Since then, "a consensus has been established that development fundamentally represents the emergence of more complex forms of self-regulation over the stages of the life-span…" (2003, p. xv). Schore's recent work continues to move powerfully towards an integration of the developmental sciences under the umbrella of regulatory attachment functions which impact all forms of cognition, affect, and behavior. According to Schore, the left hemisphere is not dominant until a year and a half when the child is speaking its first words. He suggests that early interactive experiences are specifically impacting the

nonverbal right brain and that it is the right brain that stores the internal working models of the attachment relationship and processes emotional social information. In fact, it now appears that the brain's early growth spans the last trimester of pregnancy through the second year, moving the focus of interest in early processes to the prenatal period.

Awareness of the impact of regulatory capacities on adult behavior leads us to question what kind of social and emotional experiences are needed for optimal development, and at what points. The various developmental models can now evolve to include a more precise understanding of critical or sensitive periods: in times of intensified growth, when increased synaptic production and differentiation are under way, the infant needs certain types of social and emotional experiences to support the most favorable brain growth. This brings the importance of a focus on prevention into the clinical picture. If the attachment relationship provides the ground for the modulation of the infant's energy states, then it is at these points of heightened growth sensitivity that the caregiver's receptivity to the infant's cues is particularly crucial. Schore concludes that assessing infant development now means assessing not just the infant, but equally important, the nature of the infant/mother relationship. Attachment and separation happen on a micro scale, in the moment-to-moment awareness of fleeting perceptions that grow to be emotions and then moods. The quality of the mother/infant communication has become critical to the infant's healthy growth and shapes the baby's ability to form adaptive versus immature, dysfunctional, or disregulating coping mechanisms.

These ideas, in turn, put in question our existing models of psychopathogenesis. The earlier the mother/infant dyad goes off track, the more problematic it is for development down the line. In this matter, Schore turns to Mary Ainsworth and Mary Main, central figures in the continuing development of attachment theory, who began to look at the attachment patterns between mothers and infants. Four classifications of attachment evolved out of their developmental studies: children's attachment styles could be secure, insecure-resistant, insecure-avoidant, or, in a profoundly pathological group, insecure disorganized-disoriented. Main concluded that children in this last category, who presented more severe forms of psychopathology, suffered from the damaging impact of a mother's abuse and neglect. Following Main's findings, Schore looks at the neurological correlates of disorganized attachment. The impact on the brain of ongoing relational trauma, abuse, and neglect affects the development of specific pathologies such as PTSD, personality disorders, and violent behavior.

The importance of positive emotions

In the "blue" book, Affect Regulation and the Repair of the Self, the third volume in Schore's triad on the critical relationship between affect regulation and the organization of the self, he seeks to identify fundamental mechanisms of psychotherapeutic change. He concludes that the amplification of positive emotions such as interest, excitement and enjoyment, and the fundamental bodily-based operations that lie at the foundation of these positive emotional processes are much more central than we thought. In early development, positive affects are key not only to psychological states that support growth, but also to physical health. As Panksepp showed, the brain uses pleasure and aversion mechanisms in its effort to maintain physiological consistencies; the attempt to minimize unpleasant feelings and maximize pleasant ones is associated with survival and therefore is a core driving force of motivation. When the attachment to the mother is well established, it not only minimizes negative states but, more importantly, maximizes positive states. In addition to looking at trauma and the effects of negative emotions, psychoneurobiology now indicates that play experiences and the mother's ability to modulate high joy states are of central importance to healthy development.

The implicit self

Schore points out that "most moment-to-moment psychological processing occurs nonconsciously." Both researchers and clinicians are converging upon the fact that "rapidly communicated nonconscious social emotional information is primarily processed and acted upon at the implicit rather than the explicit level." Given that in relationship much of the exchange of essential subjective information includes nonverbal dynamic exchanges in facial expression, prosodic tone of voice, touch, gesture and bodily states, cognition is being redefined to include not only a verbal-conscious component, but also a nonverbal-unconscious aspect. Verbal reappraisal strategies whereby we mentally talk to ourselves in order to regulate our anxiety are lateralized to the verbal left hemisphere. It now appears that there is another form of regulation strategy, one that does not involve an interpretive verbal component, but is lateralized to the right prefrontal areas. Dominant for coping with stress and uncertainty, and specifically accessed in states of very high or very low arousal associated with intense emotions, it is this right-lateralized nonverbal affect regulating function which is essential to the functioning of the implicit, as opposed to explicit, self. It is these data on the implicit functions of self that form the major portion of Schore's third volume.

Schore is acutely aware of the profound social implications of his findings. The future of a society resides in its children. The mother/infant relationship is central to the formation of a sense of self, to positive and negative concepts about the world and energy states, to self-regulation and the ability to regulate internal bodily states, to the capacity for empathy, to the ability to read the states of mind of other human beings. What human beings learn in their first interactions with their caregivers does not come out of later language forming situations. If it is true that early events are critical for the psychological development of human beings, then this is where a society must put its resources.

Daniel Siegel: The Neurobiology of Interpersonal Experience

What is the mind? How does the mind develop? . . . The mind emerges at the interface of interpersonal experience and the structure and function of the brain.

—Dan Siegel

Allan Schore and Daniel Siegel are blood brothers of sorts. Both carry similar messages, each from his own particular vantage point. Both Allan Schore and Daniel Siegel, along with Regina Pally (presented in Part I of this review), and Lou Cosolino (who will be introduced in our next segment) were members of the Los Angeles study group called the Institute for Development and Clinical Neuroscience. Drawing on the same neuroscientific information as Schore, Siegel, a psychiatrist who specializes in the care of children and families, explores the idea that "mind emerges at the interface of interpersonal experience and the structure and function of the brain." Siegel constructs a conceptual foundation for an interpersonal neurobiology keeping in mind that "we do not stop developing even as we grow past childhood and adolescence." Although in the first three years of life, a toddler's brain grows to two thirds its full size—a special window of opportunity for emotional lessons—the neural networks that make us who we are grow, develop, and change in response to human relationships throughout the life span. The nature of the neurobiological basis of the developing mind makes it clear that nobody builds or sustains their own brain. Filled with illustrative examples from clinical practice and everyday life, Siegel has developed a united conceptual foundation that ends the nature-nurture debate. This book is probably the most accessible and eminently practical for understanding and applying developmental neurobiology to clinical practice.

Curious about "how mind emerges from the substance of the brain," Siegel begins with an introduction to what is known about the mind's development by synthesizing the scientific findings of child development, memory, emotion, narrative, and attachment. The way the mind encodes elements of experience, and the way these encoded elements shape children's representational processes, leads him to conclude that early experiences are engrained in children before they have an autobiographical memory. He shows how, according to the findings of attachment research, it is the parent's autobiographical narratives that most importantly set the stage. Siegel writes that "the most robust predictor of a child's attachment to parents is the way in which parents narrate their own recollection of their childhood experiences." This implies that it is not so much what an adult recalls, but rather how it is recalled, that predicts how that adult will relate to a child. The practical relevance of this finding highlights the import of coherent emotional communication to facilitate the development of mind. Emotional communication and the alignment of emotional states are seen as primary ingredients in a child's evolving identity and healthy functioning. In agreement with Panksepp, Siegel views emotion as "the fundamental process of the mind that links states of arousal with the appraisal of the value or the meaning of its own representational processes." Research into the nature of emotion provides a key to how the "connection between meaning and interpersonal experience occurs because these two processes appear to be mediated via the same neural circuits responsible for initiating emotional processes."

Siegel goes on to examine other important areas of research on interpersonal development: the brain's asymmetry and lateralization of function, the application of non-linear dynamics in complex systems to the functioning of two or more minds acting as a single system, the organization of self-regulatory abilities resulting from the modulation of emotion through energy flow and appraisal of meaning, how patterns of communication between a parent and child determine the ways in which self-regulation emerges, how coherent narrative articulation establishes a secure flow of self-states across time and thus facilitates integration, consistency, and continuity of mind.

The concept of integration, and the various ways in which integration can be understood, form the subject of Siegel's last chapter and integrates the information presented in the book. Integration is defined as "the collaborative, linking functions that coordinate various levels of processes within the mind and between people." Throughout this fascinating chapter, Siegel looks at how normal development appears to move in the direction of more differentiated and integrated states. Neural integration at both micro and macro levels is fundamental to self-organization and to the brain's capacity to create a sense of self. Reality is shaped by the way our representational processes link internal and interpersonal worlds. At the microscopic level, based on anatomical neural circuitry, integration can take a number of forms including: 1) A vertical integration between the "lower" functions of the brain stem and limbic regions and the "higher" cognitive and motor planning operations of the frontal cortex, 2) A dorsal-ventral integration which brings together the dual origin of the frontal cortex from the archicortical and paleocortical regions of the paralimbic cortex. Each hemisphere has a dominant pathway: right with dorsal, left with ventral, 3) A lateral integration which coordinates the reentry of perceptual processes across sensory modalities, bringing together, for example, visual with tactile and/or auditory stimuli to create a "whole picture" of an experience. At the macroscopic level, Siegel makes a distinction between intraindividual and interindividual integration. Intraindividual, in that we interrelate internal developmental achievements across our lifespan and learn to function with relatively minimal internal conflicts among the various adaptive aspects of self; interindividual, in that it is essential to our well-being that we integrate into a coherent experience of self the multiple self-states constructed from our relationships with children, caregivers, and peers.

In the end, Siegel concludes, it is the autobiographical "coherent narrative [that] reveals a blending of left- and right-hemispheric processes" that makes known an individual's level of integration or incoherence. Bilateral integration promotes a coherent narrative in that the interpreting left hemisphere is driven to weave a tale to make sense of the emotional, somato-sensory right hemisphere's representational processes. Siegel concludes that "emotional attunement, reflective dialogue, co-construction of narrative, memory talk, and the interactive repair of disruptions in connection are all

fundamental elements of secure attachment and of effective interpersonal relationships." It is in the vital feeling of connection, in the experience of fully engaged communication that we come alive and that "one can appreciate the power of relationship to nurture and to heal the mind."

CONCLUSION

The attuned, intuitive clinician, from the first point of contact, is learning the nonverbal moment-to-moment rhythmic structures of the patient's internal states, and is relatively flexibly and fluidly modifying her own behavior to synchronize with that structure, thereby creating a context for the organization of the therapeutic alliance.

–Allan Schore

It was not so long ago that the argument was made that brain science was reductive and deterministic and therefore dangerous to psychotherapy. Now it is becoming clear that, far from narrowing our focus, it is adding new depth to our understanding. The increase in research focusing on affect, paralleled by investigations into the ontogeny of brain systems, sheds new light on the mysteries the body-mind-brain connections as well as on the requirements of early development. The recent data on affect and early development are shaping psychobiological models of infancy and adulthood that should bring us to reassess what makes therapy work and how it fails, as well as encourage reflection upon how we conceptualize our psychotherapeutic role and interventions.

Emotion binds together virtually every type of information the brain can encode. Jaak Panksepp's emotional operating systems remind us of the potency of our basic drives. Their relentless trajectory towards homeostatic balance, designed to optimize human life, is achieved when the organism feels "right" in relation to its environment. The complex mission of psychotherapy is revealed in the idea that an emotional operating system has to be activated–it has to be 'live' and 'real' in order to be explored on a variety of interrelated levels. Moreover, we must take into account the fact that the basic emotional operating systems are embedded in sub-cortical structures which, when over-activated, inhibit thinking which is processed at the cortical level. It appears that psychotherapy must engage our intrinsic affective potentials in a manner that enables them to become active within the context of a relationship where they can be felt in order to be understood and regulated. A key component of such relational therapy would be to bring together a patient's capacity to have bodily felt experiences together with a reflective capacity about his or her emotional relationships to other people. Consequently, in order to support change, there is a growing movement towards relational forms of psychotherapy that support the importance of *having emotional experiences in real time with the therapist.* This fleshes out the psychoanalytic theory that structural change in the psyche happens through the exploration of the transference/countertransference relationship. Though already largely identified in the theories of object relations, and therefore not an entirely new idea, what is new is the understanding of the far reaching effect of early trauma and chronic relational deficits on the loss of the ability to regulate one's feelings and physiology.

The most fundamental insight brought into focus by recent developments is the profound lifelong consequences of the success or failure of early attachment relationships. The early social-emotional interactions between the primary caregiver and the infant impacts the development of the baby's brain and is determined partly by genetic factors and partly by relational affective experiences. Attachment is the outcome of two factors, the infant's genetically encoded psychobiological temperament and the nature of the caregiving experience. In the nature versus nurture balance, Allan Schore and Daniel Siegel's work on the regulatory function of attachment relationships gives us an understanding of how, when developmental needs are not met, the dysregulation of body-brain-mind organization has serious lifelong mental and physical health implications that can set awry the specificity of the neurochemistry programmed to follow a precise developmental timetable. When there are developmental failures, and consequent interconnected breakdowns in regulating systems and compensatory defences, it is hard to evoke the spontaneous life-affirming responses that are the gift of good health. Research on the mother's role has highlighted her importance not only as an amplifier and regulator of her infant's frustrations, but also of her infant's positive states. Much of psychotherapy is still geared towards the removal of symptoms and negative emotions and not towards the implementation of positive states. This focus on the importance of the regulation of positive states has yet to be fully explored and incorporated in our psychotherapeutic practices. Viewed from the perspective that all forms of psychological disorders are marked by affective dysregulation, and all forms of psychotherapy are forms of affect regulation, the therapist can be seen as a psychobiological regulator of the patient's affective states.

Developmental affective neuroscience is looking at how the relational interactions between mother and infant, and among all human beings, alters internal biological, neurological, and chemical structures. Research points to the fact that the attachment relationship impacts the connections between the brain and the immune system and so, can lead to new insight into psychosomatic disorders. When the focus is on affect, attention logically turns to the body because affect cannot be approached in purely cognitive terms. Important to our somatic field is the fact that mapping bodily states–changes in heart rate, respiration, or muscle tension, tracking of visceral variations, autonomic temperature and skin color shifts, etc.–is increasingly found to be fundamental to processing emotion. Thus, affective and developmental neuroscience are turning toward the body and confidently leaving behind the old Cartesian mind-body gap. The growing reciprocal connections between biology and psychology bring a new appreciation for the intricacies of the body's ability to adapt to the environment and move us toward a search for more dynamically holistic models.

Biography

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Continuum Movement

Emilie Conrad

Abstract

In this article we are introduced to some unusual, innovative methods in treating trauma as well as physical injury. We are taken deeply into the interior dynamics of a healing modality where breath, sound and primordial movements are the key factors in a profound healing process. In bodily structure our form has been sculpted by a layering of species development going back to the first whisperings of organismic life. In a sense the embryo recapitulates the origins of multi-cellular life by involuting and invaginating. The ability to access this scope of formative life dissolves the fixity of "time", and allows a profound degree of fundamental bio-processing to exist.

The practitioner has had a long history of introducing innovative approaches to spinal cord injury as well as other forms of paralysis. From her point of view, in severe compromises, such as those outlined in the case vignette, a bio-recapitulation provides the most profound capacities for renewal.

Introduction

We are basically fluid beings that have arrived on land. All living processes owe their lineage to the movement of water. Our implicit preexistent memory beginning with the first cell, lies in the mysterious deep, quietly undulating, circulating, nourishing this aquatic being on its mission to planet earth. God is not elsewhere, but is moving through our cells and in every part of us with its undulating message. The fluid presence in our bodies is our fundamental environment; we are the moving water brought to land.

I would like to suggest that the far-reaching consequences of having a body are not just to serve as a conveyance, not just to propagate, but that we are composed of a mysterious substance that has no defined boundary. Without this substance we could not exist as humans. We may, at some time in the near future, learn to replace our pulsating wet body parts with metallic ones, in which case, we will become something quite different.

Although Continuum officially emerged in 1967, the work basically represents a lifetime of freeing myself from the confines of culture.

As a very young person, my intuition sensed that all life was imbued with a unifying spirit, and somewhere within my body this spirit could be experienced. The impression I received from the world around me was, "God was elsewhere". For years, I had a recurring image of the movement of fish dissolving into the undulating waves of the ocean, becoming one inseparable reality. I felt that somewhere in a secret long ago, we were all swimming with the very same boundless wave movements of ocean fish, and if only I could discover how to get there, the "real" world would be revealed to me. In 1953, I received a scholarship at the Katherine Dunham School in New York, where I steeped myself in the magical world of Haitian dance. A few years later, I arrived in Haiti, and through a series of fortunate events, I became involved in a newly formed folklore company as choreographer and lead dancer. It was there that I had an epiphany that would change the course of my life.

What I witnessed in the prayer rituals were the undulating movements I had been searching for all my life. Though I had seen these same movements at the Dunham School, it wasn't until I was actually dancing in a Haitian hut and feeling myself drawn deeper into the primal call of the drums that my known self dissolved into the memory of those ancient rhythms. To this day, deep in my eyes, there still dances a timeless undulating resonance.

What I saw was how the undulating wave movements of the Haitian prayer became the connecting link to our spiritual bio-world. At last I saw the movement of ocean fish personified in human movement. I knew in that moment that these fluid undulating movements transcended time, place or culture, and provided the crucial connection, linking organism to environment as an unbroken whole.

I returned from Haiti in 1960, and spent the next seven years exploring the universality of those undulating wave motions that so inspired me. These explorations eventually led to what is now known as Continuum. It's important to know that each of us carries billions of years of an ongoing global process, a sequenced continuum of life on Earth, which is taking place within the galaxy and human alike. It was the vision of a universal human that beckoned me. I had no map to follow except my strong urge to experience our essential bio-lineage and my certainty that our existences were fed far beyond our cultural moorings. It is my belief that we carry in our cells, in our tissues, in the very throb of our existence, an underlying flow that urges, inspires, flares our nostrils and beats our heart. This encompassing atmosphere of love has its own destiny -- perhaps using humans as its messengers, this love has arrived on Earth.

Movement

Movement: I. Moving or being moved. 2. Moving parts of a mechanism (i.e. clock or watch}. 3a. Body of persons with a common object. 3b. Campaign undertaken by them. 4. Activities or whereabouts of a person or group. 5. Mus.

principal subdivision of a longer musical work. 6. Bowel evacuation. 7. Progress. — Oxford Dictionary, American Edition, 1995

Science tells us we are a world of movement. Objects that we think of as static are moving, but not in discernible ways. Rocks, mountains are all "moving" with various rhythms and frequencies.The conventional notion of movement is that it is something that turns on and off. It is usually thought of as a specific activity: walking, running, or scratching our heads. When we stop these activities, we are "still", "not moving".

I make a distinction between what we call functional movement, which implies a "body", and biological movement in which the body is not a designated object and does not maintain a specificity of form. In this, we can say that movement is what we are, rather than something we do.

As living systems can we engage in the formative tendency of life more directly? As intelligent beings, can we live in a culture but not be bound by it? Does our organism have a destiny separate and apart from the concerns of personality? What we commonly refer to as a body is basically movement that has became stabilized. When we see a newborn, essentially we are looking at the movement of water made flesh. We are seeing a fluid system meeting the vibrational field of the earth, where an elegant exchange begins to take place. As this exquisite system adjusts to its new atmosphere, a gradual stabilizing occurs. Liquid grasps, eyes focus, experiments are made. The baby rolls, thrusts, jerks, flails...trying out the best possible sequences to ensure survival on Earth.

The very nature of stabilizing impels the fluid system to coalesce, giving the support that is needed to become functional. Fluidity consolidates as new requirements are met. Our oceanic memory pales as the demands of life on land become more immediate. All is forgotten, except for the primordial characteristics of our intrinsic environment.

We learn to crawl, to stand, to move forward through the savannas, the mountains, the cities, outer space. This stabilized creature called human, what is it? Can we ever know?

The fluid presence in our bodies is our fundamental environment; we are the moving water brought to land.

In utero, the amniotic and the embryo engage in a sphere in which there is no separation. Our early existence is inclusive: the embryo recapitulates our planetary process, we contain all forms, all possibilities. A claw, a fin, a hand are all blueprints in this biomorphic plan. Chemical codes will determine whether we will have a snout or a nose. The web between our fingers, the membranous dura mater and esophagus, the suspiciously protozoan curve of our brains and viscera that lie pulsating in water, are vestiges of ancient worlds here before we were, resonating in us through their varied undulating messages.

As human beings, we are an accrual of many life forms that have been shaped by our oceanic origins, still pulsating as the intrinsic world of our organs, our connective tissue, our nerve fiber. We are a process of millions of years of an open-ended experiment. Our forms have been designed and redesigned, unendingly adaptive and innovative.

All form is temporal. Its demise, or its need to reconfigure is inherent. In movement there are no objects. There is only fertile probability awaiting an urging. By defining an object or creating a boundary, such as a "body", we establish a limit. In order to survive efficiently, we must stabilize and in a sense "stop the world". We must define ourselves as a designated self in order to survive. I must know that when I'm hungry I can feed my mouth and not yours. My ability to survive appears to need to identify this bounded state that I call myself. We can live successfully within our environment, and do all that is necessary to ensure that tomorrow will come. But that is not all we are. We are also the flowing expression of a divine and complex intelligence that has formed us for a purpose we may never know.

Stabilization is vital for efficiency, but it becomes rigid when uninformed by new probabilities. Maintaining an identity of the body as our only designated form, we, as biological systems, actually narrow our vectors of expansion. With increased stabilization there is a compromise in adaptability. Infants have a capacity to heal because they are "flux", mutable and relatively open systems. Healing becomes a more arduous process as we fall victim to our assumptions about our bodily reality. We can encompass more than one description. We can learn from our "flux", which gives us pure information and nourishment. It can improve our world by not limiting us to the boundaries of our own thought.

In 1974, I made a decision to experiment with spinal cord injuries. My question was, "If we are movement, then what is paralysis?" Perhaps our medical model needs to be updated. Perhaps paralysis is in the model and not in the spine. If we acknowledge ourselves as dynamic energetic systems that are primarily movement, we could say that in paralysis there is a compromise in function, but not in movement. What I have been discovering is that movement can innovate new function.

Movement, or the lack of it, relates directly to how we are breathing. In the case of trauma, breath is usually suspended, which will also suspend movement. Shock will contribute to paralysis by its emotional immobilization. Spinal shock sometimes wears off, but emotional shock can go on for years.

When working with people demonstrating such extreme physical compromise, I begin by introducing a variety of breaths. Breath will start to activate our fluid systems and bring about novel intrinsic interactions where the throb of life becomes apparent. Complex intrinsic movement, stimulated by using breath in a profusion of ways, brings warmth and flow to what once appeared to be frozen and unresponsive.

No official protocol has ever been developed for the elaboration of spinal movement in cases of paralysis. By using an embryo-genetic (biomorphic) model, I encourage movement in the cerebro-spinal core. As intrinsic movements become more abundant, a neurologically rich matrix is created for the budding of new neural pathways. I believe that our ability to innovate lies within our biological core.

As life currents become increasingly visible and articulate, and as rigidity melts into the mutable play of form, there is a gradual lowering of the level of injury and ambulatory movement eventually becomes possible.

My concern has always been with the ingenious ways we become self-limiting; and how all our various cultures define the parameters of what is knowable. Western culture, in particular, has brought about the industrialization of the body, with a devastating and alienating effect. For us, mechanical, repetitive movement is accepted as desirable, and this mechanization lies at the core of how we live and describe our world. Does this have any connection to a flowing vital process called a human being, whose form is based on the movement of water?

In these many years of teaching Continuum, whether I am dealing with a specific healing process, or with the limits we put upon ourselves, my concern has always been to bring us to a greater participation with the underlying motif of life on Earth: organism as environment.

As each of us becomes more fluid and resonant, defensiveness disappearing like worn out flesh, there emerges a larger unity in which communication at the level of cells and fluids becomes vastly enhanced. We are processes, terrestrial and beyond. Our relationship with our planet is maintained by the resonance of our fluid systems with all fluid systems, human and other.

Creative "flux" is essential for the enhancement of our functioning. In "flux", we cannot identify "parts". This "flux" is our existential unity and creates a resonant chord with our planet. It provides us with an ability to function as biological systems rather than cultural entities. All distinctions dissolve into flowing variations, into a matrix of divine expression. There appears to be an intelligence and strength to this flux that goes beyond our thinking. Our ability to innovate lies, as far as I can tell, in this softening of form, where all becomes liquid.

We are open systems, able to respond to the immediacy of change. Our notion of "body" undergoes a metamorphosis. We no longer identify with ourselves as bounded forms exclusively, but we can enter the waters of our own existence without reservation or plan. We are the process of life constantly unfolding itself. The universe we are living in is in a constant exchange of information and nourishment. I see this as a fundamental activity of the human on this planet, and perhaps beyond our Earth as well. Blood, rivers, oceans, cerebrospinal fluid, all fluids are in a state of resonance, a unity without boundary.

Our biomorphic ancestry makes itself known to us directly, and informs us personally. God is not elsewhere, but in the very movement of our own formative tendency, continually manifesting itself through the play of mutable forms...continuum...

Thomas

He sustained an injury to his skull and spine in a motorcycle accident a year ago. Although paralyzed for a few months, he had recovered to some degree. He is ambulatory, but continues to maintain many areas of pain and immobility. There is a rigidity, particularly to his jaw, face and spine. I can see, although he is able to walk, there is not much communication in his system. His movements have a disrupted robotic quality. Some of him has returned to life, and part of him is still in limbo.

He was a gymnast and clearly he still has maintained a well-muscled structure, although it is quite limited in its expression. I am particularly aware of how he is holding his head, and the immense immobility of his jaw. He describes the constant pain in his head and back, and at the moment he is living a very cautious existence. A part of him seems to know that he is not exactly "all there".

As I watch him speak and tell me of his concerns, I am aware there continues to be a great deal of shock.

As someone who has specialized in movement, my approach to shock is to address the mobility of breath and whether sensation is registering. What I often find is that breath is constrained, often trapped in the upper chest or throat. Sensation, if it registers at all, is minimal, a generalized fogging of sensation. In some situations particularly with abuse, sensation can become hyper-responsive -- the person registers an extreme heightened reaction to all sensation no matter how mild. To me, this response is shock with an alternative strategy.

In my experience, trauma, whether through an accident or some other means, becomes patterned into the system; much like a scar added to a fingerprint, the trauma continues.

Our understanding of the continuance of post-traumatic stress syndrome has received great attention. A person surviving a concentration camp will certainly experience trauma . Someone falling off a bicycle will also be traumatized. All experiences in which one faces one's own death are similarly imprinted. Extreme stress can also be seen as related to shock and trauma -- perhaps to a lesser degree. But stress paralyzes and numbs, most likely due to the cortisol that floods our system. Considering paralysis to be a "l0", stress can be seen as high as a "5" on our immobilizing-desensitizing scale.

Depending on the degree of shock or stress will be the degree of suspension of breath, movement and sensation. Maintenance of shock signifies that vitality is also suspended. When vitality is elsewhere, our ability to interact has been compromised by the limitation of movement and sensation. Our primal tendency for self-organization has become compromised.

It is mystifying how some people will recover from an accident, and others do not. Much of what determines the healing potential of a situation is the degree and the length of stress or shock. Limitation of movement and sensation will inhibit the organism's capacity for self-renewal.

Primary to any healing process is the establishment of communication within the system. If there is no communication, or if it is faint or partial, the self-organizing processes of our bodies will become short-circuited. We still carry an inherited response to danger. Suspending breath mediates movement and sensation. In the animal kingdom

one cannot be detected if there is no movement. Breath determines intrinsic mobility and adaptability. Breath becomes key in summoning our life force. Breath equals movement, movement equals communication, which creates new interactions, inviting self-renewal and innovation. All of takes place within the fluid system of our bodies. These movements are intrinsic, internalized, establishing an ancient rapport, a miniaturization of the cosmic soup, a creative flux in which fluid interactions have reached such complexity that new life is summoned.

What is required is to engage the person at their fullest. A person in shock cannot do this. The primitive responses of their bodies are held in suspension -- waiting…waiting to be released.

I begin by asking Thomas to create sounds. Sound is audible breath, and for most people sound is an easier way to access breathing than concentrating directly on breath. Sound gives more obvious feedback than breath alone, which is much more subtle and requires a more nuanced attention. Sounds create different shapes; some are lateral some are tubular. With each sound different parts of the mouth, tongue and throat are stimulated in a variety of ways.

After exploring several minutes of sounding, I ask Thomas to go into open attention . Open attention is the harvesting of sensations and internal interactions as a result of a direct activity. At first, he is aware of very little sensation. In fact, he is feeling a heightening of the pain in his jaw. This is not unusual. In the engaging of new interactions the increase of blood supply and activity will often intensify all sensation including pain. He is aware only of his pain. I am aware that his shock may have suspended his ability to feel. The increase of sensation will soften the hard suspension of shock. The reptilian circuits through sensation will begin to buzz again.

Most people are rudimentary in their ability to feel . Sensation is not considered important, particularly in our Western techno-society, which has moved far away from the river of life and the revelation of the human body.

Sensation for most people will circle around pain, sexual arousal, things that feel good and things that don't feel good. Sensation becomes slotted into known categories and we take no further interest.

An array of sensation will represent an increased capacity for response. If I have only one response to a situation, my choices become very limited. If my responsive capacity becomes more developed, the intelligence of my system has the opportunity to broaden, and I am able to register more options within a given situation.

Pain is useful information, and can be a complex response to situations that may or may not be physical. For example, if someone is in a painful life situation, a difficult boss, or a work situation where one feels helpless to express anguish, often the emotional response will go underground and surface as pain. Helplessness can become symptomatic, appearing in the arms or hands where we defend ourselves; this is usually referred to as "somatizing". A painful situation is being transferred to the body. Pain is important feedback. Our system is trying to tell us something. We have hidden our feeling and now the pain is being expressed in my back…neck…anywhere…sometimes everywhere. Nature protects us from extreme pain by shutting off our sensation by a global numbing. We survive but we cannot feel.

The problem is, when awareness locks into pain, we are unable to respond to anything else. We have localized our attention to such a degree that we are creating a stasis of awareness. Our pain will remain a repetitive response to sensory information and evolve into a defense strategy.

When we have narrowed our perception, no matter how justified, we create a form of paralysis. We may still be ambulatory, but our awareness becomes truncated and unable to move. We are the living dead. Not able to be responsive at the most basic level of our system, we become cut off from the information around us and the primitive part of our nervous system becomes increasingly muted.

Habitual responses whether painful or delightful are basically maneuvers of our defense system to maintain a status quo. The habitual response can be ecstatic or difficult -- it doesn't matter. What matters is my awareness is trapped in stable sameness and I am unable to shift it.

My fear has now immobilized my awareness and I have created a feedback loop that keeps me safe from new information or communication. My system now is in a highly compensatory state.

When working with someone, I always ask for their lens of awareness to enlarge even slightly, to accept the pain as there, and to see what else is there. What else is happening no matter how faint? The atrophied awareness sometimes only registers what is within its immediate radius -- almost as if it has shrunk itself to a situation. We want awareness to be mobile, to be able to generalize, to be able to receive information that is both local and non-local. We want our awareness to be versatile. We want our sensation palette to be full and rich. Much like a painter with brilliant colors, we are informed by the pulsations of tones. Our capacity to know is not just cerebral. Our sense perceptions can become tentacle-like, spreading far and wide, allowing a new circumstance to take place within us.

As best I can, I explain this to Thomas. I tune in to him and to where he "lives". I adjust my language and my references to what would make sense to him. I want to interest him in his own process, to help him to see how his habitual response locks his attention and narrows the possibilities for healing. I can see that I have engaged his interest. A gleam is in his eye; he appears more animated. He is eager to see if his lens of awareness can go beyond his habit. We try again. The sounds that lateralize combine with sounds that are tubular, creating a kind of music. These sounds engage different parts of his throat and tongue.

We go into open attention, I watch him smile as he sits in front of me with closed eyes, apparently registering something more than his usual response. He is in open attention for several minutes, harvesting the movements and sensations that the sounds have stimulated. After some time his eyes open, there is a general softening of his system, more color to his skin, a quiet energy to his body. He is present.

He seems to materialize in front of me. He takes on more substance, as if he is being filled out from within. An awakening has occurred; the tone of his voice, the deepening of his coloring, the expansion of his field are evident.

He describes with wonder that he has been able to unlock his attention, and like someone snorkeling deep onto the ocean floor, he notices a new world existing within him. Sensations that would ordinarily be so muted as to be below the threshold of his awareness have been amplified by the soundings. The restriction that he usually feels is melting, and he describes something that he tentatively calls pleasure.

I listen carefully, not just to his words. I am listening to the increased tones of his voice, and I am watching his body come alive in subtle ways. His entire expression has become more flowing, his movements more open. He is communicating with me far beyond language, I am with him, and he can feel this. Our rapport grows as our ability to communicate at the silent level increases.

I make some comments, and once again we return to the orchestration of textural sounds. After a bit he stops and goes into open attention. I can see that there is an increased softening. After a while he opens his eyes. He seems wetter to me, he has an "afterglow", as if he had just finished making love. His experience was much deeper the second time. He felt that, as the first round opened him up and slowed him down, with the second his awareness was able to move more, things became more interesting.

He felt his second round had become even more delightful; surprisingly he was able to feel his system flow. Connections were being made internally that were bringing new life. He could feel an ancient intelligence being summoned. There was more to him as he spoke. Each round helped to materialize him further. It was as if he had been a ghost and now he was vivid. After talking for a few minutes we did another round of the same sequence.

I call this process of repeating a sequence "layering". This brings about a complexity of interactions in which sensation and movement are interpenetrating in new ways. I often refer to this as "creative flux". As complexity increases and interactions become more diverse, there is a fecundity present in which new life processes are possible.

The first round is a point of entry, the second brings an increase of exchanges, the third round is where "creative flux" moves into an elaborate heightening of the basic fluid interactions of our bodies. Complex wave motions are evident as his structure becomes more mobile. Fecundity rises as form lessens, and once again we return to ourselves as movement.

When he finishes layering, we enter into a verbal exchange; I feel his whole system has become kindled with an incandescence that I take as "coming to life". Much has occurred that goes beyond what we can make sense of. We are witness to a larger event that has not as yet been named. As we sit together our exchange becomes richer. We are in a resonant field. In resonance or rapport we are communicating beyond verbal interaction. In a sense our words become the background, and the feeling tones or a field of meaning comes forward. Communication becomes a new activity. This is not unlike when we have made love in a truthful and satisfying way. We have merged in an exquisite contact that includes the physicality of the moment, and yet goes far beyond it.

Defensiveness or excessive self-description decreases resonance and limits our intelligence. We cannot grow healthy within a bounded self that is deadened to its own primary existence. A defended or rigid body is not only hampered in communicating within its own system, but is removed from a depth of contact with others. Resonance is a deeply sensual way of existing. It allows wholeness to occur in which there is a mutuality of being that, again, is similar to making love. Resonance brings forth new qualities of contact, communication and certainly relationship.

We go back to the soundings. This time I show him movements that involve his jaw and throat. These movements are what I call "biomorphic", meaning that they are universal movements that are at the basis of all life forms.

I believe the human structure to be a species blend, a synthesis of primordial forms. The biped or human, as we know it, can recall its ancient past where form is mutable. Species boundary is softened. Recapitulating our oceanic origins, we become a kaleidoscope of forms that were here before we were. We are in the sea of fecundity from which all life has emerged.

As I watched Thomas I saw intrinsic protozoan-like elongations changing the contours of his throat and face. His throat had softened in form to such a degree that I felt I was watching an oceanic creature at the bottom of the sea. There is a liquidity to the movements that becomes obvious when we have invoked the ancient intelligence of the human system, that is represented in form but goes beyond it. "The thousand faces of Shiva", came to mind as I watched the movement spread to his torso. He was becoming more mutable. I saw an elegant dance of life taking place within him. Flickering of primordial domains appeared, moving in and out through his skin; it was like watching the history of species development.

I believe that this protozoan liquid world is our "dreamtime". We cannot become aborigines -- it is too late for that. But we, in our techno-society, can discover, through our capacity to explore new terrain, the remarkable human.

We are astounding beings held hostage by our cultural values. Our organism is a spiritual, biological legacy that invites us to enter the liquidity of a merged self with the encoding of a humanness that has not as yet arrived. I feel that the work that I have brought forward through all of these years points to our birthright. The human is an explicate of our planetary process. We are inexorably and umbilically connected to the origins of life. We are not bound by time space or condition. As yet, I believe that we have not even begun to tap the immensity of our heritage.

Biography

Emilie Conrad founded Continuum in 1967. She was born and raised in New York City where she studied ballet and Afro-Haitian dance. She is a visionary and movement pioneer whose inspiring innovations are being incorporated by an international audience of lay people as well as professionals from fields such as Rolfing, cranio-sacral, physical therapy, dance, yoga, chiropractic, therapeutic massage, healing, kinesiology, and physical fitness. Her unique protocols for neuro-muscular paralyses and insights on disease have revolutionized the concept of recovery. She was the movement specialist in a research study let by Dr. Valerie Hunt at UCLA, and is on the faculty of Omega, Esalen, and Kripalu Institutes.

Clinical Applications of Singing In Body-Oriented Therapy

Ron Panvini, Ph.D.

Abstract

Difficulties in singing most often appear to be the result of psychological factors such as developmental issues rather than genetic deficiencies or lack of musical ability. A diagnosis derived from observing a person sing can be conjoined with other diagnostic approaches to form a characterological evaluation. Teaching a person to sing through a process combining traditional vocal technique with somatic psychotherapeutic interventions, can affect changes in psychological character. Conclusions are that working vocally and somatically with clients produced increased insight and expressiveness, decreased psychological symptoms, increased changes in character structure and general psychological growth. Representative case studies drawn from a clinical practice are described.

The production of voice is a complex phenomenon. It is unique in man and characterizes the development of consciousness...the voice is the instrument of consciousness. (Pierrakos, 1968, p.8)

INTRODUCTION

Viewed from the perspective of clinical psychology, the act of singing in humans can be examined as a multidimensional behavior involving bodily processes, mental processes, psychodynamic processes, and cultural factors. Observing a person in the act of singing informs. In doing so, the clinician learns far more than the client's musical ability. He or she can also discern much about cognitive ability, personality development, and character organization, including sexuality, energy, motility, and expressiveness. Also apparent is complex information regarding ethnic and economic background, intelligence, educational level, and other factors. These elements viewed together provide substantial personal data about a client's conscious and unconscious processes that can significantly aid in the formulation of a clinical impression.

This paper draws from a thirty-year clinical practice in which singing has been employed as an integral part of the psychotherapeutic process. Presenting problems often center on difficulties in expression, though clients also seek help for a broad range of issues. While some clients are in the performing arts with professional careers or aspirations to sing, act, or speak in public, many are not. The clients described in the clinical vignettes presented in this paper are non-performers with presenting complaints including inhibition and social discomfort. They were seeking psychotherapy and were not trying to develop as performers.

The principle approach employed is Bioenergetic Analysis, the body-oriented, active psychotherapy that developed out of Reichian character analysis. Some techniques utilized are drawn from behaviorism, Gestalt therapy, and psychodynamic psychotherapy. On the musical side, interventions from various schools of vocal technique, vocal coaching, and music therapy are employed. Techniques from these disciplines have been integrated into a psychotherapeutic method aimed at helping people move beyond the limitations of character to live more emotionally expressive, satisfying lives. The clinical vignettes presented will illuminate the distinctions and characteristics of this model.

Singing Viewed Psychologically

Singing, as defined herein, is the ability to carry a tune, to execute a tune in rhythm, and to do this with appropriate feeling. Based on this definition, inability in singing means difficulty or incapacity in one or more of these three aptitudes. Rather than focusing on one's ability to produce a beautiful musical sound, as would a voice teacher, the psychotherapist listens to vocal quality as it reveals character and inner being. By minimizing the distinction between singing and noise, the clinician's focus is directed toward psychological issues such as analyzing why, for example, a person sings out of tune, or why someone's singing sounds emotionally flat.

The literature on poor pitch singing, the most common singing problem, indicates that relatively few people are actually tone deaf (unable to distinguish high and low notes) or tune deaf (unable to distinguish wrong notes in famous melodies). Research on perfect pitch indicates that about three in every one hundred people are tune deaf (Profita & Bidder, 1988, pp. 763-771). Kalmus and Fry found tune-deafness in only 3.6 per cent of males and 4.5 per cent of females (1980, pp. 369-382). Profita, Bidder (1988, pp. 763-771) and Rowley (1988, p.198) cited genetic factors, suggesting that over 96 percent of people are genetically capable of singing in tune. Why is it, then, that far more than three percent of people informally polled report that that they cannot sing in tune, and why do so many people express fear and unwillingness to sing publicly? A great discrepancy apparently exists.

Since the capacity to sing in tune appears to be inherent in most people, inability to sing should most often be due to causes other than genetic ones, such as difficulties in perception or execution. Inabilities in singing are most often fundamentally psychological in origin. It is precisely this relationship, between singing problems and emotional problems, which this work addresses.

Regarding singing in tune, Welch found, "a link between emotional problems and poor pitch singing," writing, "poor pitch singing appears to be a product of many environmental factors" (1979, pp. 50-56). Difficulties in singing are often related to difficulties in personality organization. Mitchell reported that out of tune singers, "…clearly do not listen to themselves when singing" (1991, pp. 19, 74), perhaps a difficulty in being sensitive to their inner cues or a difficulty in relating, i.e., to the accompaniment, and by extension, to others.

No literature was found concerning singing in time as it relates to psychological issues. A case vignette will elaborate on this relationship.

As to singing with feeling, one's capacity for emotional expression can be analyzed through observing this behavior. A typical obstacle is the fear of embarrassment or humiliation. Triplett reported on the prevalence of this fear. Three thousand participants were asked, "What are you most afraid of?" Almost half (41 percent) responded, 'Speaking in front of a group,' and thereby placed stage fright at the top of the list. It outranked, by a large margin, other fears such as the threat of sickness, financial problems, even death. (Triplett, 1985)

Many people also express trepidation at the thought of singing in front of others. Research on stage fright and performance anxiety focuses mostly on instrumentalists, though comparisons between musicians and singers are easily made. The literature suggests a strong correlation between fear and the inability to play an instrument expressively. In musicians, Clark noted, "The physical symptoms of performance anxiety, especially tremor, interfere with motor performance, and the psychological effects may lead to avoidance" (Clark, 1989, p. 28). Similar symptoms are found with regard to singing in public, including physical and vocal tremor. Nagel linked stage fright to an individual's life history writing, "symptoms are the conscious manifestation of complex unconscious processes" (Nagel, 1993, p. 493). Gabbard suggested that the anxiety generated in stage fright stems from the reemergence of key genital and pre-genital developmental experiences.

> Shame arises from conflicts around exhibitionism, from concerns over genital inadequacy, and from the fear of loss of control. Guilt is produced from the aggression inherent in self-display and from the fear of the destruction by rivals, along with the dread of retaliation. (Gabbard, 1979, p. 383)

Bioenergetic Analysis

Bioenergetic Analysis is a body-oriented psychotherapy which postulates that mind and body are functionally identical—what goes on in the mind reflects what is happening in the body and vice versa. Lowen (1975, pp. 151-173) presents five basic character types, developmentally ordered (Schizoid, Oral, Psychopathic/Narcissistic, Masochistic, Rigid), and five corresponding bodily holding patterns. Holding patterns have as their primary function the conscious or unconscious suppression of affect through the blocking of libidinous energy by muscular armor. In individuals such patterns result in character attitudes which are expressed in the form and motility of the body, i.e., level of energy, respiratory patterns, muscular development, sexuality, and posture, etc.

It is rare that a person will exhibit only one holding pattern. The clinician most often sees traits in varying combinations and degrees within different individuals. Focusing on the nuances of the client's personal expression such as facial cast, body attitude, and mannerisms, the therapist looks for fixed or repetitive manifestations of character, i.e., lifeless eyes, set jaw, inflated or collapsed chest, overall weakness or strength, resiliency or rigidity, as well as revealing behavior such as gestures, and fleeting signs of defended emotion.

In addition to verbal interventions, Bioenergetic therapists employ physical interventions integrating psychodynamic therapy with bodywork. Chronic muscular tension functionally limits the flow of energy in the body by impeding the vascular system from carrying oxygen through the bloodstream to particular muscles. Energetic blocks are interpreted as physical manifestations of psychological blocks, i.e., the lump in one's throat as a physical expression of the resistance to crying. Bioenergetic therapists, therefore, work to move energy through various parts of the body that are chronically blocked and which constitute an individual's character structure.

By over-stressing particular muscle groups through applied pressure or through putting clients in physically stressful positions, i.e., standing with knees bent to over-tax the legs, chronically held muscles begin to yield as evidenced by muscular vibrations. Breathing is concurrently mobilized and deepens. These bodily changes are often accompanied by increased contact with oneself and/or emotional release. Expressive exercises such as hitting a mattress with a tennis racquet, kicking, punching, or reaching out longingly, help people to experience and express suppressed affect. Such interventions give tangible expression to psychological conflicts and provide new emotional experiences that foster change and growth.

Within this model the voice is appraised for those properties that illuminate character. The clinician analyzes the distinguishing ways in which people speak, paying attention not only to what they say, but also to the tones, rhythms, emphasis, inflections, utterances, pauses, and patterns they use. Voice quality is examined for various elements such as smoothness or roughness, loudness or softness, pitch, timbre, and other identifying attributes that often communicate that which is unconscious or defended.

In working with vocal release, Bioenergetic therapists encourage the discharge of affect through the expression of sound. If a person is to recover his full potential for self-expression, it is important that he or she gains the full use of the voice in all its registers and in all its nuances of feeling. The blockage of any feeling will affect its expression vocally (Lowen, 1975, p. 271).

The addition of musical vocalization and the singing of songs is a natural extension of the Bioenergetic model that furthers the therapeutic process.

CASE VIGNETTES: Diagnostic Perspective

The following case vignettes will illustrate the relationship between character structure, emotional reality, and singing from a body-oriented, diagnostic perspective. The use of singing as a psychotherapeutic intervention will be described later.

Otto: Out of Tune

Otto, a thirty-six-year-old Swiss businessman, came to therapy with a desire to be more expressive. In performing a body reading, an assessment of the physical dynamics of his character structure, I observed that his jaw was pushed and held in a forward position, and that his pelvis was retracted. His defiant, thrust jaw gave him the appearance of strength and independence, while his retracted pelvis revealed an underlying fear of his sexuality and withholding of aggression. These postural characteristics were consistent with his history. Otto described an austere childhood with a stern father and a mother who was both seductive and rejecting. Developmentally, Otto tried to stand up to his father (as expressed by his defiant jaw), yet had to retreat sexually from his mother (as expressed by his retracted pelvis). He reported that he had not had sex with a woman for over ten years and had never been romantically involved. His flat, hard chest suggested one who protected his heart and could not so easily feel his softer feelings. The arches of his feet were quite high, and this, as well as his highly held shoulders, gave him an, 'off the ground' look. His eyes darted, did not make consistent contact with mine, and did not seem to have much energy. He looked reasonably strong physically, but frozen in fear. These features, when considered as a whole, did not give one an impression that Otto was energetically connected. Rather, the overall sense was one of segmented ness and disconnection, his upper body suggesting one thing, his lower body suggesting another.

After taking a detailed history, I asked him to sing a song. He stared blankly at me. He had never sung a song and did not know how to begin. I played a note on the piano and asked him to match it. He tried several times, but was unable to reproduce a single pitch. He could not recognize whether a note I played was higher or lower than the previous one. I also noticed that his voice did not resonate in his head and chest, and lacked vibrancy.

From his history, and physical and vocal traits, I assessed that there were schizoid and psychopathic elements in his character. I saw Otto as a man with poor object constancy, and believed that his pitch difficulties were relational, reflecting a lack of connection to his mother in his early life. To verify my diagnosis, I asked him to lie down on a mattress and instructed him to breathe normally. His chest barely moved and his belly did not move at all. He unconsciously defended himself by limiting his breathing, thereby limiting his capacity to feel. Otto's fire needed stoking – he needed to breathe more deeply.

I asked him to put one hand on his belly, the other on his chest, and instructed him to first breathe abdominally and then breathe into his chest. As his breathing deepened and he relaxed somewhat, I instructed him to sing any note on the vowel sound, 'ah'. He tightened, held his breath, and had difficulty producing this sound. I instructed him to breathe in fully, but not to pause at the end of the breath before executing the note. My intention was to interfere with his tendency to freeze in fear. Instructing him to continue breathing in this way, I told him again to sing a note on the vowel sound, 'ah'. This time, however, I matched his pitch. We did this several times as he vocally explored his voice at different pitches. The combination of breathing and being vocally mirrored seemed reassuring to him. As we continued to do this we made eye contact. These moments of connection soon softened his eyes.

Next, I sang a note and asked him to match my pitch. Again, he tightened in fear. I asked him to focus once more on his breathing, and when he began to relax, I again sang and he tried to match my pitch. I instructed him, "a little higher, a little lower," and after several attempts, he connected. He lit up with excitement. In describing this experience years later he said, "I felt this as a deep process. It was the first time in my life that I had the experience of tones sung by two individuals in the same frequency melting into one. Yet it was not so much the joy of having hit the note at last, but rather the amazement at having met another person on the level of a sound." I was convinced from working with him in our first session that Otto's pitch difficulties were not genetic and immutable but, rather, a symptom of his chronic fear of connecting to himself and to others. The therapeutic goal became clear: help Otto to increase his ability to feel his emotions, and to build tolerance for emotional relatedness. Interventions from Otto's therapy will follow in a later section.

Gary: Out of Time

Gary, a forty-year-old college professor, complained that he was inhibited and socially awkward. In our first session, Gary sang a song to my piano accompaniment. He had a pleasant voice, and sang in tune, and with feeling, but stopped several times after making slight mistakes. He was anxious and self-critical, and seemed to need much encouragement. As he sang, I noticed that he could not sing in time, a difficulty that took two forms. First, he would anxiously anticipate his vocal entrance and begin singing too early. Second, regardless of our starting tempo, Gary would invariably drag the pace of a song to a slower speed. He could not yield to the musical tempo, but instead seemed to hold back, as if driving with one foot on the brakes.

Gary was a good boy growing up. He described his father as, "one of the most volatile people I've ever known," saying he was frequently criticized and often beaten. His mother, a teacher, was, "loving and compassionate," but overprotective. Gary dis-identified with his father and became a 'mama's boy'. In doing so, he gave up his father's rebelliousness, and became docile and non-threatening to his mother, and to women in general.

Regarding his physical structure, Gary's arms were somewhat disproportionately thin and undercharged compared to his torso, a physical trait that expressed his passivity. He did not need to reach out to his mother who doted on him, nor could he strike out and defend himself against his abusive father. His arms were under used and underdeveloped. His pelvis was slightly wider than his shoulders and was quite retracted, as was his jaw, though his full beard hid this feature. He had the overall look of a mild-mannered man, good-hearted, but tame and safe. His character structure was passive-feminine, characterized by excessive politeness and submissiveness, traits that mask aggression and anger.

Gary's singing reflected his character. His anxiety intruded on his ability to focus on the musical accompaniment causing him repeatedly to make early vocal entrances in singing songs. His holding back of the tempo could be interpreted as an attempt to avoid his deeply feared primitive impulses. He could not let go to his passion, restraining himself, and as a result, dragged the tempo.

In many of our sessions he focused on doing a song 'right', that is, compulsively following the melody and lyrics exactly as written. When he did not execute a song perfectly he would abruptly stop and appear demoralized. Gary had apparently introjected his father's criticality and had learned to masochistically direct his anger inward at his own imperfections rather than outward at his foremost critic. At the same time, his desire to sing correctly was an expression of his need to please. This was his role in life to submit to his father's aggression, and to please his mother by not being aggressive like his father.

Gary's compulsive need to execute a song perfectly was an attempt to manage his anxiety that was based in the fear that I, and others, would criticize and humiliate him as had his father. By putting his efforts into singing a song correctly, he defensively directed his attention toward a less threatening act instead of attempting the more risky act of singing expressively that could potentially provoke his historical drama. His desire to sing revealed a healthy aspiration to become freer and more trusting of his own expressive impulses. Vignettes from Gary's therapy, which focused on helping him reclaim his natural aggression, will follow.

Marilyn: Out of Touch

Marilyn, an attractive thirty-nine year old, divorced, clothing designer, came to therapy complaining, "I need to break out of my shell. I am not as free and expressive in my social life as I'd like to be." She reported having difficulty speaking up in social situations and believed that expressive psychotherapy could help her.

Marilyn was musical and had a pleasant voice. In our first session, she sang in tune and in time, though her range of emotional expression was very limited. She could sound pleasant and sweet, but could not sing with any passion. Rather, her performance was intellectual. She could render a sad song with what seemed to be an appropriately sad tone. However, her emotional rendering was static and monochromatic, with no arc of expression, and did not change from the beginning to the end of a song. When singing is emotional, the singer is visibly transformed to some degree by the end of a song, a sign that something emotional has been experienced. This is apparent in the singer's facial or body expression or is heard in the voice. Marilyn appeared to be very much the same before and after singing -- evidence that she was not moved by the act.

Marilyn reported difficulties in self-assertion in personal and professional relationships. She was polite and timid with an agreeable personality style that functioned to avoid conflicts. She spoke in a sweet, soft voice, was cheery, and smiled often. One could not easily see beneath her pleasant veneer. Historically, Marilyn had to cover up her feelings of anger, hide her opinions, and deaden her sexuality to emotionally survive in her family. She described her mother as, "loud, boisterous, and domineering," and reported that her father, a passive, intellectual man, sometimes looked at her in a sexual manner, an experience that often made her feel embarrassed and caused her to stiffen.

Characterologically, Marilyn presented as a rigid character, one whose conflicts began during the Oedipal stage. She was worldly, accomplished, and well socialized, though reserved. Her rigidity, however, was actually an overlay to pre-Oedipal, oral and schizoid issues. On a body level, Marilyn maintained a split between thinking and feeling to avoid experiencing emotions that were threatening. Her occipital muscles were especially tight, and this energetically kept her, 'in her head'. She described lifelong feelings of terror saying she experienced herself as if, "floating in space, disconnected from anyone or anything", statements that expressed her abandonment and alienation. To feel her body would mean to re-experience her early terror.

Physically, her split between love and sex was expressed by a particularly small waist that cut her in half, thus keeping her heart and her genitals energetically out of communication. She tended to make decisions from either above

or below the waist, and was either sexually attracted to unavailable men, or made friendly, heart connections with available men who did not excite her sexually. Marilyn's therapy, as described later, focused on increasing her tolerance for self-connection and expanding her range of expression.

Clinical Application

"There is a large body of evidence to suggest pitch discrimination...can be brought about by the sympathetic teaching of singing" (Welch, 1979, pp. 50-56). In the approach presented here, the concept of, "sympathetic" voice teaching has been extended into a psychotherapeutic model in which supportive, analytical, and expressive interventions result in observable psychological changes. It has been found that when personality issues are addressed psychotherapeutically, i.e., helping clients to listen to their inner emotional cues, difficulties in singing improve, often dramatically. Conversely, years of clinical experience have shown that working on singing can be psychotherapeutic resulting in generalized psychological change, i.e., increased self-awareness and improved ability to relate to others. Following are clinical vignettes of the psychotherapy of the clients discussed.

Pitch Addressed Developmentally

My work with Otto over a period of seven years focused primarily on issues of relatedness through a developmental process. Continuing from the work started in our first session, we spent many subsequent hours with him lying down, duplicating notes I sang. Sometimes this included eye contact. At other times, I instructed him to look at my mouth and copy the shape I made with my lips. This work was grounding for him and appeared to help him develop an improved sense of self- awareness.

When I would sit at the piano, about fifteen feet away from the mattress on which he lay, he often became anxious and sang off key. I sensed that his anxiety was provoked by our separation, for when I would return to his side he was again able to reproduce my sung pitches. Placing my hand on his chest often seemed reassuring to him, and allowed him repeatedly to match the notes I sang. As he became more comfortable with doing this, I started moving my chair a few feet away from him, as we continued to vocalize together. Each time I moved further away, he grew fearful, and became incapable of staying in tune with me. We continued singing together at these increased distances to help him build tolerance for separation while maintaining a vocal connection.

Eventually, I moved further away from him and nearer to the piano. I played a note and sang it at the same time. He sang it correctly. I repeated this several times, singing more and more softly each time until he could only hear the piano. He began to reproduce most of the notes he heard from the piano instead of from my voice. Thus he began to internalize the concept of pitch, and to tolerate increased separation, signs that object constancy was developing.

Freeing Physical/Emotional Blocks through Vocal Resonance

Marilyn: To therapeutically address Marilyn's schizoid issues, I asked her to lie down to help her regress. I applied pressure to the occipital muscles at the base of her skull, to promote a better flow of energy from her head to her body, so these two body segments could energetically begin to connect. Sitting behind her and holding her head seemed to comfort her and helped her begin to yield to her feelings.

With her head supported in my hands, I asked her to hold a note on any pitch for as long as she could until she had to inhale. She sang a low note on the sound, 'ah', and held it for a long time. She repeated this process several times and eventually, each time she breathed out fully, her voice began to quiver. I encouraged her to hold the sound even longer and, soon, she began to break into a slight sobbing sound. The low notes she sang resonated in her chest. I asked her to raise the pitch in increments as she sang, so the sound would vibrate in her head. As she did this, her head and upper body began to convulse rhythmically, a sign that her chronically tight neck was yielding. I asked her to open her eyes wide as she continued vocalizing. Her voice was dramatically strong and resonant as a wave of vibration pulsed through her entire body. It was as if a jolt of electricity was coursing through her. She broke into strong crying for a few minutes and released much stored up emotion.

When she stopped crying, I noticed that her eyes looked clear and bright, and that her face had lost its previous pallor. She was breathing more fully and said, "I was afraid at first but when my body let go it felt thrilling." Her tolerance for such a strong flow of energy suggested to me that as a child she had developmentally reached the Oedipal stage, but had to retreat from her sexual feelings to deal with her mother's competitiveness and her father's unconscious sexual attraction to her. Now she seemed to be reclaiming her sexuality.

Otto: In a sitting position, leaning against a large gymnastic ball to support his back, I asked Otto to tap lightly on his tight chest to help the sound resonate there. He began to breathe more deeply, and to sound more vibrant. In another exercise, I had him gently rub his throat while vocalizing to alleviate the tension there that served to block the flow of affect – he tended to choke back his tears. Following this, I asked him to move his fingers vigorously on his cheekbones while singing the vowel sound, 'yee'. This allowed the sound to resonate in his head, brought vibrancy into his voice and brightness into his eyes. I would also ask him to hold a note and rock his head from side to side, thus preventing his neck

muscles from their chronic task of holding. These interventions began to free him energetically and emotionally and seemed to help him feel more connected to himself.

Singing Songs

Songs often touch upon universal human themes, and articulate the full range of human struggles, conflicts, desires, and feelings. The singing of meaningful, well-chosen lyrics can illuminate various aspects of a client's life experience, often helping one to experience unconscious need, longing, anger, feelings of self-worth, and other defended emotions.

Otto: The first I song taught to Otto was*, Love Me Tender* (Presley & Matson, 1956), a song that expressed his deep, but frightening, need to be loved. The song's simple and direct plea allowed him to awaken feelings he had to defend against early in life. We worked over time on several other songs as they related to his therapeutic journey, including the Beatles'*, If I Fell* (Lennon & McCartney, 1964), a song about trust which we did as a duet, *Can't Help Falling in Love* (Weiss, Peretti & Creatore, 1961), a song about surrender*, Somewhere* (Bernstein, Sondheim, 1956), from *West Side Story*, a song of yearning, *Crying Time* (Owens, 1964), the country lament about loss, *Tonight* (Bernstein & Sondheim, 1956) also from West Side Story, a song of anticipation, and *September Song* (Weill & Anderson, 1938), a reflection on growing older. Each of these brought new depth to his experience of himself.

A significant phase of this work was to help Otto with issues of independence through vocal work. Because of his pitch difficulties, I would always play the melody clearly when accompanying him. If I did not do this he would sing off key. Typically, the accompanist plays the harmony and the vocalist provides the melody, an interdependent act. Otto was dependent on me to supply the ground, the reality of the correct melody, and could not autonomously sing his part. Over time, I began to leave out a few of these notes in my accompaniment in an effort to help him sing independently. It was similar to moving the training wheels on a bicycle farther and farther away from the ground until they are no longer needed. When I did this he often panicked and lost the melody. I encouraged him to work with these fears tangibly by breathing and softening his belly, instructing him to feel his feet pressing down into the floor. Such tangible interventions grounded him, eased his anxiety, helped him to independently sing his vocal part, and to actively work on becoming more psychologically independent.

I also supported his independence by asking him to memorize songs. He typically had stood beside me looking at the sheet music as I played the piano, and depended on reading the lyrics and watching me play for his singing cues. As he was increasingly able to sing a melody on his own, I suggested that he should not continually look at the lyrics, but instead should sometimes look up and trust that he knew the song he was singing. Giving him a copy of the lyrics, I suggested that he should stroll around the room singing, only looking at the words when it was essential. It was necessary for him to move away from me safely to begin to build self-trust. I assured him that he could return to my side if necessary. I chose to have him walk rather than simply stand further away to counter his tendency to tighten in fear. Sometime later he remarked, "When you asked me the first time to sing a song from memory, I thought it was impossible. And even though I knew the text, I had the feeling of clinging to my sheet of music in order to have at least something which I could hold on to."

Marilyn: The singing of songs was employed as a tool to help Marilyn address her early deprivation and openly express her sexuality. In addition to our private sessions, she also attended an ongoing group I led in which participants did bodywork and sang assigned songs. The country classic, *You Don't Know Me* (Walker & Arnold, 1955), helped her express her shyness. I asked her to make as much eye contact as she could tolerate as she sang these meaningful words:

You give your hand to me, and then you say hello
And I can hardly speak, my heart is beating so
And anyone can tell, you think you know me well but
You Don't Know Me.

Songs of longing such as, *Someone to Watch Over Me* (Gershwin & Gershwin, 1926), helped her feel and express her need for closeness. I would ask her to imagine herself as a child as she sang:

There's a somebody I'm longing to see
I hope that he turns out to be
Someone who'll watch over me

I also instructed her to softly reach with her hands, as she sang, as if reaching for someone. Her hands trembled, at first with the hesitance of carrying out an emotionally risky act. However, her trembling soon took on an excited quality as she felt a new aliveness and flow of energy in her arms, hands, and fingers. With this, her voice became more resonant and emotional, expressing the truth of her need to reach out to others.

Marilyn's Oedipal issues were addressed physically and emotionally by assigning her the song, *Midnight at the Oasis* (Nichtern, 1973), for its overt, playful sexuality:

But you won't need no harem honey
When I am by your side
And you won't need no camel, no, no
When I take you for a ride

I suggested that she flirt with members of the group, encouraging her to move her body seductively as she sang. This, of course, was embarrassing at first, but she was willing to try it, allowing her hips to move more freely and her hands to gently caress her body in a sexual manner. As she permitted herself this freedom of expression, her eyes brightened and her skin became radiant. Such experiences, within the safe, therapeutic environment, helped her begin the process of integrating these new emotional states.

To help her develop more capacity to express feelings she deemed negative, I suggested she learn, *Cry Me a River* (Hamilton, 1953), a song of vengeance. To prepare her for singing this experience, I asked her to bend over with her feet shoulder width apart and parallel for good grounding. Then I asked her to bend her knees, and while doing so, to inhale. Next, I told her to push her feet against the floor, and in doing so to allow her legs to straighten until she felt the muscles behind her knees tighten. I asked her to repeat this several times – bend and breathe in, push her feet against the floor, and breathe out. I instructed her not to let out any sound. This exercise was intended to build a charge of energy. Preventing her from releasing sound helped this process. After a few minutes, her legs began to vibrate and this vibration soon moved into her upper body.

I had recorded the piano accompaniment to, *Cry Me A River*, and when she seemed to be brimming with energy and feeling, I played the recording and asked her to sing the song to me as if I was Steve, a man who had betrayed her. I asked her to let her feelings out through her voice as she looked directly at me. Her voice rang out strongly and fury came into her eyes as she sang:

Now you say you're sorry
For being so untrue
Well you can
Cry Me a River
Cry Me a River
I cried a river over you

She then hit a mattress with a tennis racquet while naming other people with whom she was angry. Her voice was dramatically strong and loud (like her mother's, with whom she had dis-identified) and she hit with resilient power. Following this, she did a reprise of the song and was able to express herself passionately in full-throated anger. Marilyn's intense emotional expression constituted far more than just an effective vocal performance. It was a long overdue discharge of unconscious emotion that was life changing.

Gary: Gary's self-criticality resulted from repeated humiliation by his father. I addressed this issue by maintaining a supportive, even tone with him. I treated his mistakes as minor, which they were, reminding him that this was not life and death, this was singing, and perhaps it could even be fun. I encouraged him to actively make mistakes, even to sing incorrectly intentionally. This helped to lighten his overly serious masochistic attitude. I also started to assign him songs of self-affirmation such as*, The Impossible Dream* (Leigh & Darion, 1965), with its inspired lyrics:

This is my quest,To follow that star,
No matter how hopeless,
No matter how far

and *My Way* (Revaux, Francois & Anka, 1969), an ode to individuality:

For what is a man,
What has he got,
If not himself,
Then he has not.

I instructed him to shadow box and imagine he was physically attacking his father while singing (Marks, 1967):

Whether I'm right
Or whether I'm wrong
Whether I find a place in this world
Or never belong
I've Gotta Be Me
I've Gotta Be Me
What else can I be but what I am?

At first, when trying to express his aggression, he flailed wildly and ineffectively, losing his grounding. I helped him coordinate his body, head, and eyes, and strike out directly and forcefully toward a perceived enemy, at times encouraging him to direct his wrath at me. These open expressions of anger and aggression allowed him to experience emotions that were previously terrifying and unacceptable.

In one session, Gary kept forgetting the words to a song he knew well, something he tended to do when anxious. I asked him what his thoughts were at the moment he had forgotten the words. He said, while singing with his eyes closed, he was imagining himself on stage before an audience. He told me he tried to stop himself from thinking this thought, and then would forget the lyrics. When I asked him to tell me more about the fantasy, he said, "The guys I knew in music school were there in the audience watching me". Gary had not completed his musical degree because of poor grades, transferring to a school of education where he received a doctorate. The men he saw in his fantasy had succeeded where he had failed.

As we discussed his fantasy further, Gary said he felt embarrassed to be on stage making a fool of himself, and that he felt, "exposed," adding, "I got cut off," from the lyrics. The words 'exposed' and 'cut-off' suggested an unconscious fear of humiliation and castration. His father's criticality had apparently prevented Gary from developing a healthy exhibitionism. I suggested that he try the song again, imagining himself on stage performing to the same audience. This time, however, I instructed him to grab his crotch while singing. Something profound happened as a result of that physicalization. He moved with a masculine grace and ease that was romantic, yearning, and passionate. For that moment the tame, passive, good boy was gone, and he owned an earthy sexuality that he had to bury to avoid conflict with his father.

Singing Generalized

Otto: Through the vocal work that addressed his developmental issues, Otto became less isolated and more able to relate. Our work with matching pitches helped him to make a more consistent emotional connection to another person -- something he could not learn from his labile mother. The therapeutic use of singing songs allowed him to integrate new emotional experiences, and helped him to mature. As a result, Otto became a warmer, more feeling person. This was not only evident in his singing that became quite expressive – his voice often quivered with emotion as he delivered a song in later sessions. It was also apparent in his body that took on a more alive, fluid quality. His eyes, once cold and fearful, developed a softer quality, reflecting the inner warmth he had gained. His breathing also increased and his previously hard chest became softer, reflecting his emotional vulnerability.

These internal and expressive changes generalized to his life as Otto began a turbulent romantic relationship, his first. He often reported being able to work through obstacles in this relationship following sessions during which he sang. Songs of yearning helped him to articulate his need for closeness to this woman, while songs with self-affirming lyrics gave him the courage to speak up for himself when he needed to do so. Through his dedication, courage, and persistence over a period of years, Otto accomplished his presenting wish to become more expressive, and through the process, started living a fuller life.

Gary: As he began to give up his compulsive tendency to hold back the tempo when singing, Gary found himself to be freer in other endeavors. His writing, which tended to be laborious, became less effortful. He was able to begin writing a play, a project about which he previously could only fantasize. As his words flowed on paper, so did they begin to flow in speech. Gary began to confront his ex-wife, an unstable woman, whom he feared would kidnap his twelve year old son if challenged. As he addressed Oedipal issues and castration anxiety through expressive work, he became bolder, hired a lawyer, spoke up in court, and put an end to his ex-wife's manipulative behavior. Though he still says he can be overly concerned with what others think of him, he reports being more spontaneous in his everyday life as a result of our work.

Marilyn: Through expressive bodywork and the singing of meaningful lyrics, Marilyn made progress in her difficulties with self-assertion. Her previously un-sexual demeanor began to blossom as she became more grounded and self-connected. Her willingness to express overtly sexual songs helped her to be more self-possessed and confident. She developed an ability to express both her needs and her anger with the men she dated, confront a superior at work whom she had feared for years, and also ask for a raise in salary. She eventually moved out of the city to a home overlooking the Hudson River. There she met a new man to whom she became engaged.

Conclusion

Difficulties in singing often appear to be the result of psychological factors rather than genetic deficiencies or lack of talent. Singing and vocal production can be effectively employed as agents for psychological assessment and as instruments that promote emotional growth. Case vignettes have demonstrated that the production of sound is a visceral and vital experience that enhances the vibratory process that is central to the Bioenergetic model. Singing meaningful lyrics can help a client to experience his or her defensive way of existing, as well as provide new emotional experiences that can foster psychological change and growth. These changes are often apparent, not only in clients' vocal expressiveness, but also in their bodies, including shifts in energy and expression. The cases offered also demonstrat that gains from musical interventions may generalize to other areas of functioning, including decreased psychological symptoms and increased self-esteem.

Although singing is ideally suited as an extension of Bioenergetic therapy since both focus on breathing, movement, and expression, singing as an intervention can be used with other psychotherapeutic modalities to further the therapeutic

process. As shown, sound and song can illuminate, inspire, provide insight, and assist in the process of change. It is hoped that this paper will create professional interest and motivate further research.

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Biography

Ron Panvini, Ph.D., is a Certified Bioenergetic Therapist, practicing in New York City for nearly thirty years. His broad and varied background includes an extensive performing-arts career, acclaim as a body-oriented voice teacher, a doctoral degree in Clinical Psychology, and treatment of MICA patients and victims of torture as a Psychologist at Bellevue Hospital. He has presented a variety of expressive-arts workshops worldwide, and has been written about in "Self", "The Chicago Tribune", "American Woman", and "Women's World." He may be reached at doc@bodypsych.com, (212) 595-4952, or 160 West 73 Street, New York, NY 10023.

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How does material in this manuscript inform the field and add to the body of knowledge? If it is a description of what we already know, is there some unique nugget or gem the reader can store away or hold onto? If it is a case study, is there a balance among the elements, i.e, back ground information, description of prescribed interventions and how they work, outcomes that add to our body of knowledge? If this is a reflective piece, does it tie together elements in the field to create a new perspective? Given that the field does not easily lend itself to controlled studies and statistics, if the manuscript submitted presents such, is the analysis forced or is it something other than it purports to be?

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