Abstract

This article relates recent findings in neuropsychology to the practice of art therapy. Based on published literature and the author's experiences as a therapist, it illustrates how knowledge of neurological functioning can be used to therapeutic advantage with art therapy clients. Case examples reveal that providing clients with a basic understanding of how their brains work and helping them translate this into the language of art can break through stalemates and advance treatment.

Introduction

For many years, art therapists have claimed that using art expressions in the therapy session helps clients reach their goals in a timely manner. However, the question why this “making of marks” brings self-knowledge to the client has only recently been justified by some discoveries in the field of neuropsychology. These will be lightly touched upon in the following discussion. As an art therapist, I have become fascinated by the principles of brain-mind-body, and I am convinced they provide the rationale for the use of imagery through the introduction of the language of art in therapy. The following explorations are intended to enlarge the landscape of the practice of art therapy and introduce some concepts from which our profession can profit.

The Nonverbal Beginnings

If we start by recognizing that in our first 3 years, before we were verbal, the world is experienced mainly through our visual and other somatic senses, a clue is discovered about why our minds find image-making and image-recalling a natural state. Not until the corpus callosum starts functioning around the 3rd year of life do the left and right brain have the ability to have a conversation. The acquisition of language begins to give names to the emotional life that we have known so intimately since our most formative infancy. Our somatic, kinesthetic, auditory, and visual world now has words, but the basic knowledge of relationships and a sense of security have already been firmly laid into the memory banks and remain as body knowledge all the rest of our lives (Bowlby, 1969). It follows that visualization is a usual way of our knowing the world; however, society has superimposed the value of words over imagery, and we tend to disregard information that is not “rationale and explainable.” The capacity to first know relationships and environment without words and later to be able to name and evaluate our inner images is to become an interactive human being. We are the only primates who acknowledge, or are able to verbalize, that the inner world is as important as the outer world. (At least I have not heard the contrary from our primate relatives.)

The Brain, Images, and Art Therapy

The potent ability of imagery to convey meaning and impact discourse with greater import has been a primary belief for art therapists; however, the mechanism of how we actually observe objects visually has not been of major concern. It becomes unreasonable to imagine that what you and I see is identical after we learn how visual images are stored and retrieved in the brain. How we make choices and how emotions influence our decision making is another puzzle. There are many more mysteries about our mind left to uncover, but I have been most intrigued by the use of imagery and the process of visualization. I was further intrigued when I learned that the images that the brain holds in memory are no less real in our minds than the actual images the visual senses receive through our eyes from the outer world (Damasio, 1999). Thus, in therapy we are examining with our clients not only their perceptions but also their inner images, which are inaccessible to us unless we offer them tools that enable them to actualize these representations.

I will share a few statements from some of the authors whose observations have made a major difference in the way I perceive my clinical practice and have added to my conviction that art is a viable language in therapy. Damasio (1994) has given examples of persons with right hemisphere damage who seemed to function well when challenged with
purely intellectual tasks; however, their decision-making ability was very poor. He explained how we need both the right brain's emotional intelligence and the left brain's intellectual (verbal) intelligence to work together to make successful judgments. Without the emotional input that sends signals of warning or confirmation, signals that remind us of how it felt when a similar situation arose, we do not have intrinsic memories to help us make correct choices. Emotional feelings integrated with past decisions, either satisfactory or not, are signals that inform us to proceed or take care, and the right-brain injured persons did not have this capacity. Therefore, these men or women would repeatedly make the same poor choices because they lacked emotional intelligence from the right brain and limbic system to interact with left-brain abilities. They were cut off from their emotional intelligence.

In the profession of clinical art therapy, this knowledge allows the therapist to appreciate the creative process in a new manner (Malchiodi, 2003). When we ask our clients to project an image (right-brain activity) and contemplate the meaning of the image (left-brain activity), we are offering an opportunity for an integrated experience that can lead to new creative choices. As clients consider change, they can attend to and make visible their emotions, which are part of past experience and present responses; thus all aspects of the decision-making process can be examined.

This information can be shared with clients in a form that makes sense in the context of either addressing their difficulties or questioning the usefulness of art therapy. When our clients ask about the benefit of artmaking—if they are able to understand a layperson's description of the mind—they, too, will be excited about the process. The issue of pathology becomes moot. As a therapist I am also excited about the therapeutic potential of this concept, and this stimulates and heightens my attention. In collaboration with clients, I weigh their choices in the light of bringing forth the emotional signals, as well as the rational information, that are stored in the neurological imprints created in the present and informed by the past.

A caveat must be made: There is not an absolute division between the processes of the two hemispheres, but in general, there are areas of activity in the different hemispheres of the brain that correspond to the above simplified explanation. In this paper, the designations “right” and “left” are used as metaphors for the more complete explanation that follows. Siegel (1999) has explained:

In the right hemisphere are fast-acting...holistic processes. The right side specializes in representations such as sensations, images, and the nonverbal polysemantic (multiple) meaning of words.... Note that the traditional verbal-nonverbal distinction between the left and right hemispheres is not completely accurate. Examples of this include the contribution of the right hemisphere for the understanding of metaphor, paradox, and humor....

On the left side of the brain are the more slowly acting, linear, sequentially active, temporal (time-dependent) processes.... The left hemisphere is thought to utilize monosemantic “packets” of information as basic representations.... Our language-based communication is dominated by this linear mode of expression.... This is quite distinct from the analogic representations seen, for example, in an artist's painting. (p. 179)

Images and Vision

Another amazing mind-brain activity is that of vision. We art therapists take for granted that looking at the client’s art is a major part of sharing information in the therapeutic process (with the exception of special situations such as blind clients). We might assume that we and our clients are seeing the same art therapy images and have mutually shared visual perceptions. Not true. The neuropsychologist Ramachandran (Ramachandran & Blakeslee, 1998) informs us that we should let go of the notion that we have images in the brain and begin to think of symbolic descriptions. I quote:

> Viewing any object evokes a pattern of activity (in the brain). As we look at any object a different pattern of nerve activity is elicited, “informing” higher brain centers about what you are looking at. The patterns of activity represent the visual objects but do not have any resemblance to a photographic image. (p. 66)

To confound us even more, we learn that there are sorting and discarding centers in the visual cortex where useless information is put aside and simplified—similar to how a cartoonist implies a whole body with a few lines and relies on the mind to insert the rest. The edited message is then sent to over 30 centers that appear to be highly specialized for extracting different attributes from the visual scene such as color, depth, motion, and the like.

Why is this information something an art therapist should think about? If one believes, as I do, that we are collaborative partners with our clients, then we must not make assumptions until we compare views. We have to be aware that since no two brains are alike, we may not be seeing the identical art image as our clients until we have a dialogue about it, and even then we can never see “exactly.” Every image has a unique meaning to the artmaker, and now we are forced to accept that his or her vision is also unique. As Bateson (1972) said long ago, “It is a difference that makes a difference” (p. 453). We therapists must now explore how clients “see” the world before we can begin to hear their narratives.

Some therapists may not want to practice in a landscape that is so alien that the therapist must accept that seeing, comprehending, and language are all unknown until they are discussed. It is more challenging, but it is also more stimulating. If we are doing therapy by listening only to our own words and seeing only through our own lenses, we might as well sit alone with our own projections and not confuse our clients.

Body Memory

The notion of “body memory” is based on the concept that the body informs the mind and the mind informs the body—there is no division. For example, when a cold is
coming on, we anticipate the heavy feelings of discomfort and lassitude and the desire to retreat into a warm, safe place. Often accompanying these symptoms is a state of mild depression that is part of the immune system slowing us down. In most cases we react to these warning signals. On the contrary, in clinical practice we find men and women who refuse to submit to these warnings or who simply cannot stop their routines to be ill. This form of denial is not unusual, and most people survive a cold. However, when the body advises the brain that all is not physically well on a more serious level, and the mind rejects the signals, we have troubles ahead (Sternberg, 2001).

If this is a chronic state of affairs, clients may benefit from art therapy that provides a means to actualize messages sent by the body. For example, some of their physical feelings and accompanying emotions could be indicated on a neutral (unisex) body drawing. On the simple body image, the client can localize and acknowledge the pain or site of the disease and make decisions about how to proceed with seeking help. The surrounding emotions concerning illness can also be projected onto the drawing. Emotional and physical states are united. The drawing gives the client the chance to speculate where the resistance lies to acknowledging the illness and accompanying emotions. (Figure 1 presents an example of this type of drawing. Note that all the illustrations in this article are facsimiles that are close approximations of original drawings by clients.)

Recognition of this complex interaction between body and mind and the natural reluctance most persons have to facing illness will not produce a physical cure, but it may reduce stress factors that do influence the immune system. Unattended stress and denial can undermine the ability of the immune system to combat disease successfully. Even more dangerous is denying the need to seek treatment. When clients can visualize the disease and feel they have some control over treatment, they may be able to take a more realistic approach to healing (not curing) their problem (Sapolsky, 1998).

Another form of body memory can be observed when an adult who was abused as a child resists caresses. Because the early experience of physicality was harmful, the body reacts to touch as though it were painful. The body has to learn to trust as much as the psyche does. Art media cannot cure this grave situation, but it can introduce the subject of touch and pressure by examining a variety of media and exploring the associations that touch evokes. This can open the door to the earlier experiences of abuse by exploring the next level of reactions to kinesthetic stimulation. Past traumatic events often surface in drawings and should be resolved, but not without providing a form of control that releases the experience of the trauma in controllable increments. A therapeutic procedure that allows a learned skill of self-regulation must be put in place. By allowing the trauma imagery to emerge gradually and the intrinsic body memories to be safely experienced and then integrated into the here and now, the emotional and kinesthetic neuronal tracts in the brain can learn new patterns (Siegel, 1999).

Art therapy is an action therapy that through the use of the tactile and visual senses provides the possibility of adding body memories to the therapeutic dialogue. If the body memory evokes repressed memories of early trauma, then the imagery can be projected in a visible fashion and a controlled experiencing of painful recollections is possible (van der Kolk, McFarlane, & Weisaeth, 1996).

Language

Like images, words have a life of their own. Each of us learns meanings assigned to words within our singular culture—the culture of the family and the culture of the surrounding society. As therapists we cannot assume that when we use words, our clients attribute the same meaning to the words as we do. I often use the example of “imagine the word ‘father’” to prove this point. No two persons will bring forth the same image, even if they are of the same family. Each family member will assign emotion and meaning to a “father” image in an individual manner.

The Mind-Brain-Body Synthesis with Art Expressions

So now we are in an unfamiliar therapeutic world. Neurons in the brain are sorting and firing, emotions are conversing with intellect, words are retaining idiosyncratic meanings, the body is retrieving memories, and it seems our clients and ourselves are in a foreign land. The task of exploring uncharted territory with everyone we see is exciting but also a challenge.

What do we do when we are lost in a foreign country? We buy a map and ask questions. That seems amazingly simple, but we have the ability to do this in therapy as well as in an unfamiliar country. If we therapists take a “non-knowing” stance (Anderson & Goolishian, 1988), are curious, and are open to reading the client’s map, we can enter into the imagery of our clients and wait to discover if our
visions are similar. We can rely on the art images to illuminate their vocabulary, and we can continue the dialogue until we understand their significance. A rudimentary education in mind-body research can regulate our reactions to our clients' artwork and help us to be patient as we learn to speak our clients' language (Riley, 2001).

**Case Examples**

The examples that follow are taken from my practice and show how neuropsychology is not an esoteric theory but one that can be applied in therapeutic practice and assessment. The language of art evokes reflections on the manner in which we know the world through our minds and our bodies. When the concepts of neuropsychology guide the treatment, the road map is not hard to follow, and my clients and I travel it together.

**Mary**

My first use of this approach was with a bright and accomplished doctoral candidate at one of the major universities in our area. Her husband, who was eager to file for divorce immediately, had recently summarily abandoned her. Not surprisingly, she was devastated and somewhat in shock because she still loved him in spite of his abusive nature. We spent some time with the issues of loss, anger, and trauma, and in due time, Mary began to pay more attention to herself and her own reactions. Her approach to creating her reality was to analyze every thought and reaction, intellectualize her every emotion, and generally make herself more miserable. Mary had a programmed answer for every situation, answers that did not seem to make a difference when seeking solutions. Thus she raised her stress level by trying to reduce it through a purely factual evaluation.

As I was thinking about her exaggerated determination to understand intellectually every process of her life, an image came to my mind. I wanted to share it with her. By now we had a strong working relationship, and Mary was used to my flights of fantasy in the sessions. Confident that she would not be thrown off by my strange way of communicating, I looked at her in a puzzled manner. “What?” she said. I told her that I was having an optical hallucination when I looked at her. “How?” she asked. “When I look at you I see a very strange shape to your head. The left side seems so distended, and the right side is caved in and perhaps even atrophied! I wonder if your brain is causing this abnormality?” Mary looked at me with that “come off it” expression. Suddenly we both laughed and then became serious. We talked about the emotional intelligence of the right side of the brain, and the need for both hemispheres to work together to make successful decisions.

I had Mary look at the explanation in the book *Descartes’ Error* (Damasio, 1994) that made clinical and neurological sense of my imagery. She did a drawing of her lopsided head (Figure 2) and then created a corrective “surgical” procedure on the drawing. With scissors and glue, she removed a piece of the left bulge and attached it to the right side, which produced a more balanced image and a metaphor for using both sides of her brain.

For Mary the notion of emotional input aiding intellectual reasoning made a significant impact. In addition, she appreciated how the art helped her make a conscious effort to move from left brain to right and then toward integration of the capabilities of both. Moreover, she understood that “left and right” was a metaphor for her neglect of her feelings through rationalization and intellectualization. She started to slow down and listen to the messages from her emotional wisdom that advised her to remember the feelings aroused when she made certain decisions and the consequences when she disregarded the warnings. It was interesting how this introduction of a new reality into her decision making gave her the capacity to evaluate her past marital relationship more clearly. She allowed herself to feel all the past hurts and disappointments in that relationship, and she was no longer convinced that she loved her ex-husband in light of this new understanding. She had spent years analyzing why he operated the way he did and had forgotten to check on why she was the way she was.

In our next phase, Mary was focused on finding her own solutions and gave up trying to find answers for her exiting husband’s behaviors. She described how tense she felt most of the time, at work or play, and she remarked that it was as if a spring was about to unwind, and when it did, she would fly apart. This imagery elicited an invitation to do a representational drawing, one that she did with passion. Her “spring” was very different from my expectations. Instead of unwinding with an upward thrust, it unwound downward. It pierced her genital area and shattered her expression. Suddenly we both laughed and then turned to a discussion of how repeated stress,
in her marriage she demanded the security, both verbal and love from a man and was the cornerstone to her self-worth. Because, in her world, the sex act was a declaration of his loving feelings toward his wife. She was quite frantic because she lacked as a child. Don was terribly confused about his conflicted feelings of wanting to express his affection sexually and his paralysis in doing so. The discord continued, and the marriage was in jeopardy. A point of change was instigated when I asked him to explain how he had expressed his feelings growing up. He said he was not allowed to show strong feelings and was sent to his room if he attempted to do so. He immediately said, “I don’t want to blame everything on my childhood. I have gone through all of that.” What he hadn’t gone through was the way the brain lays down patterns of behavior and responses to which we react even if we have “insight” (Siegel, 1999). We discussed this response pattern and the research that claims that patterns can be undone. We had a semiscientific conversation about how neurons that fire together over a long period of time tend to persist in this pattern.

Don decided to draw his neurons and then redirect them. Somehow that drawing gave him the sense that he was in charge of his reactions. Later on he drew doors—open, closed, slamming, opening—a theme that opened the dialogue to attachment theory. The drawings were rather fanciful; the neurons were charging down to a hand opening the door. He refused to be (emotionally) “sent to his room” any longer. He could appreciate in a new way that even though he had been raised in a caring home, demonstration of affection was unavailable to him. Love was always at long distance. He was offering this same form of distant emotional attachment to his wife.

Don’s ability to be expressive came about slowly, but with some other way of understanding his dilemma, he felt less self-blame. He could imagine changing brain patterns rather than feeling hopelessly deficient and condemned to remain that way the rest of his life. The language of art reinforced his mastery over a long-time habit of being reclusive rather than face rejection. This movement came about by being engaged in active expression, which became tied to active change in behavior. His wife realized that she, too, had to deal with her present-day expectations that were based on past interactions.

**Geriatric Group**

The last audience one would expect to respond to diagrams of neurons and neurotransmitters was a group of elderly Alzheimer’s clients. This proved to be untrue. In an early onset group, where the members are in first or second stages of memory loss, several of us staff members did some exciting work. A young student doctor was visiting the facility to satisfy his community service requirement from medical school, so we pressed him in as a cotherapist. I was eager to try out the notion that these clients who came from educated backgrounds—the group included an MD, an accomplished actor, and a former CEO—would be interested and stimulated if they were offered a visual representation of the process of retrieving memories and the damage that dementia inflicted on the process.

On a large piece of paper, the medical student drew the neurons firing and explained what happens when a process, such as dementia, injures that sequence. The two other co-
leaders helped the clients if they were having troubles hearing or needed some part of the discussion repeated. However, the group was absolutely fascinated with his explanation, which used simplified terminology but did not avoid real information. One man said, “At last I am getting some information here that I have been waiting for!” The members were then asked to respond by drawing how they thought their brains might look. The degree of response was a surprise to the staff and led to a higher form of communication during the rest of the activities (Figure 4).

At the groups’ request we continued the medical discussion the next week. I asked our new medical coleader to show how the brain informs the body and the body informs the brain. He made a great schematic, and gave a clear, simple, educational talk as he drew the process. I felt that it was important to make visible the subject of body memory because there was such an emphasis on intellectual memory. The clients believed that when that skill diminished there was little left. In this group most members had some motor retardation, some had less facility to direct their hand coordination, but others had well functioning physical control and only struggled with memory. They felt they were incompetent and had “lost it all” when they forgot a name or an event; they had never heard of body memory. We emphasized that if we lose one function, we haven’t lost it all. The body can have memories as well as the recall sections in the brain. This was stimulating for the group, and they saw themselves through a larger lens than before. The discussion that followed was so lively that the director watching from behind the one-way mirror was amazed. The group appreciated that they had a variety of functions that could augment memory and that if they lacked extrinsic memory, they still had procedural memory. In fact, it was noticeable how polite and formal most of these clients were most of the time.

We brought the drawings back for the next few groups and tacked them on the wall. We were curious to test if the information was retained. Much to our satisfaction, most of the eight group members had recall and displayed positive emotional responses to the illustrations. However, it was necessary to have the illustrations to trigger the memories of the past session. This is another example where bringing a fresh reality into the therapeutic process can give unexpected pay-off. I have not yet had a negative experience with sharing mind-body notions with clients, but I have been very aware that as with every intervention, it must be done with caution and in the context of the therapeutic environment.

Irene

Figure 5 shows a facsimile of a drawing by a young woman who was struggling to become an “American” woman even though her family was determined to keep her in their Middle Eastern culture. They had immigrated to the United States when she was a child. The drawing illustrates her dilemma, which we confronted in the early phase of treatment. In the drawing she chose those traits of her culture that she would like to keep, and she rejected those features that she disliked. She was desperate to discard the suspicious, judgmental behaviors that she felt her parents had taught her. She fluctuated between hysterical reactions and closed-down isolation. I was interested to note how her drawing concentrated her feelings all in one area of the right hemisphere. She did not show much intellectual consideration of the consequences of her behaviors in her daily living.

She said she needed to cut this inherited belief system from her brain and would do anything to be happy. Therefore, we did a “lobotomy” (the dark area at the base of the brain). I want to assure the reader that my pastels are not strong enough to be a surgical tool. However, strange this intervention may seem, it was fully directed by her and made a difference to her sense of control over her circumstances. She used this metaphor to strengthen her move to independence by “cutting off” the old patterns and moving into a more cognitive, critical evaluation of her options.

Summary

Making an art form involves movement, tactility, vision, memory, and imagery; therefore, all of the brain functions that I have mentioned are brought into play. Emo-
tional intelligence is stimulated as the image retrieves memories and associations and engages the cognitive capacities and self-regulators. A drama is played out with all the senses adding texture to the dialogue. The therapeutic conversation can be wordless, or it can be through verbal metaphors that later become concrete expressions. With an attitude of freedom and a willingness to be informed by our clients, we art therapists have a special form of therapy that can be useful to clients of all ages and fit a broad range of difficulties. Learning about brain function may not change the way an art therapist appears to be conducting her sessions, but it requires a shift in epistemology that is reflected in the therapy (Kaplan, 2000). For me, it has provided scientific reassurance that reinforces my confidence in the value of adding the language of art to the therapeutic discourse. In addition, I am comfortable sharing some of my layperson’s knowledge of mind-brain-body with my clients. They, in turn, appreciate that their attention to their images and a synthesis of emotional and cognitive awareness is valuable and will likely lead to alternative solutions to old problems.

I have concluded that my theoretical stance can be summarized as a “postmodern, interrelational, co-constructive belief system, coupled with neuropsychology and expressive arts therapies.” It sounds complicated, but it is practical and pragmatic and opens possibilities for new ideas in art therapy.

References


