Using Both Sides of the Brain: Experiences that Integrate Art and Talk Therapy Through Scribble Drawings

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Abstract

Neuroscience researchers identify a cerebral cortex with two functioning hemispheres: a left hemisphere associated with language and speech and a right hemisphere associated with visual-motor activities. Additionally, neuroscientists argue that contemporary lifestyles favor the verbal, logical left brain and often ignore the truths that present in the right brain. Psychotherapy techniques range in their use of left-brain verbal discourse and right-brain nonverbal discourse. In a case study, the author describes experiences integrating both verbal and nonverbal therapy with a client with severe anxiety and depression. Nonverbal therapy involved annotated scribble drawings. Images in the drawings became the stimuli for verbal discourse with the client. Other client responses to the annotated scribble drawings are described.

I would go without shirt or shoe,  
Friend, tobacco or bread,  
Sooner than lose for a minute the  
Two  
Separate sides of my head!

— Rudyard Kipling (1927)

Introduction

In this paper I explore the relationship between the neurosciences and the integration of verbal and nonverbal discourse in the therapeutic process. The traditional use of language in psychoanalytic therapy and in the postmodern schools of narrative and collaborative therapies is in marked contrast to the emphasis on nonverbal discourses in expressive arts therapies and the ancient healing practices from which many of these therapies find their roots. With psychoanalytic and narrative at one end and expressive arts at the other end of the therapy spectrum, there are many other modalities that fall between them in terms of their relative reliance upon verbal and nonverbal forms of discourse.

The work of Nobel Laureate Roger Sperry and his then-student Michael Gazzaniga (1998a, 1998b) with patients with split brains is particularly relevant to this subject. Gazzaniga has written extensively on the structure and function of the brain, particularly the functions of the two hemispheres of the cerebral cortex—the left hemisphere associated with language and speech and the right hemisphere associated with visual-motor activities—and the effects of severing communication between these hemispheres (i.e., splitting the brain). Our culture has privileged the linguistically focused left side over the more nonverbal, creative right side. Sperry (1983) stated: “Our educational system and modern society generally (with its very heavy emphasis on communication and on early training in the three R’s) discriminates against one whole half of the brain” (p. 58).

This paper describes my work with an adult client struggling with severe anxiety and depression—work that engaged both halves of the brain by using both art and verbal discourse. The client’s art productions stimulated metaphors that facilitated an unfolding of the client’s story. Metaphor has long been recognized as a therapeutic mechanism that facilitates connections both conscious and unconscious between seemingly different entities (Bettelheim, 1989; Lankton & Lankton, 1986; Rossi & Ryan, 1985). More recently, art therapist Riley (1997) described metaphor’s intrinsic relationship to art. She stated, “Metaphor is a basic tool in the practice of art therapy” (p. 283). Further, Pearce (1996) stated, “Metaphor’s domicile in the right side of the brain gives it unrestricted access to the region of the brain that processes information in the most uninhibited manner” (p. 48). Thus, art and metaphor facilitate a verbal discourse that is informed by the functioning of the right brain.

This paper also includes an overview of brain function focusing on the left and right hemispheres of the cerebral cortex. In summary, I discuss the possible ties between verbal and nonverbal therapies and the specialized functions of the two hemispheres of the brain, describe the annotated scribble drawing as an intervention that integrates both verbal and nonverbal discourse within the therapeutic environment, and provide an instrumental case study that illustrates a client’s use of the annotated scribble drawing to tell her story in metaphor. I share my own reflections upon the experience of working with this client, as well as additional experiences with the therapeutic use of scribble drawings, and end with conclusions based on the whole.
Functional Model of the Brain’s Cerebral Cortex

Evolutionary models identify and describe the specialized adaptation of the various parts of the brain. The prevailing view of the brain is modular, with different modules performing different tasks. These tasks are not readily interchangeable. Gazzaniga (1998a, 1998b) has identified the functions of the left and right hemispheres of the cerebral cortex, the seat of reasoning, planning, and creative activities. The left hemisphere is responsible for language and speech, the right hemisphere for visual-motor activities, as described in the following passage:

Ultimately we discovered that the two hemispheres control vastly different aspects of thought and action. Each half has its own specialization and thus its own limitations and advantages. The left brain is dominant for language and speech. The right excels at visual-motor tasks. (Gazzaniga, 1998b, p. 51)

These hemispheres communicate primarily through the corpus callosum, a mass of neurons situated between the two hemispheres. Much of Gazzaniga’s work, and the many others who followed his lead (Bouma, 1990; Gazzaniga, 1984; Kosslyn, 1987; Schiffer, 1998; Springer & Deutsch, 1997), was based upon studies of patients whose corpus callosum had been severed—a technique used to inhibit seizures associated with epilepsy—hence the term “split brain.” He wrote:

After many years of fascinating research on the split brain, it appears that the inventive and interpreting left hemisphere has a conscious experience very different from that of the truthful, literal right brain. Although both hemispheres can be viewed as conscious, the left brain’s consciousness far surpasses that of the right. (Gazzaniga, 1998b, p. 51)

He also described additional dominant functions of the left hemisphere. It specializes in cognitive problem solving, and split-brain experiments reveal that it functions seemingly independently of its right counterpart. In contrast, the right hemisphere is very poor at problem-solving.

Gazzaniga (1998a, 1998b) asked the questions, “How do these two very important parts of the brain interact?” “How does the right hemisphere respond to the output of the left hemisphere and, more interestingly, how does the left hemisphere respond to the output of its quiet counterpart on the right?” With LeDoux, Gazzaniga studied the left hemisphere’s response to actions emanating from the right hemisphere with the following discovery—the left hemisphere constructs an explanation for the actions. It constructs a meaning; this meaning may have little to do with reality, but it satisfies the problem-solving, interpreting left hemisphere. Gazzaniga (1998b) described the seminal experiment:

Each hemisphere was presented a picture that related to one of four pictures placed in front of the split-brain subject. The left and right hemispheres easily picked the correct card. The left hand pointed to the right hemisphere’s choice and the right hand to the left hemisphere’s choice.

We then asked the left hemisphere—the only one that can talk—why the left hand was pointing to the object. It really did not know, because the decision to point to the card was made in the right hemisphere. Yet, quick as a flash, it made up an explanation. We dubbed this creative, narrative talent the interpreter mechanism. (p. 54)

Gazzaniga (1998a) described this phenomenon even more dramatically in the following statement:

What is amazing here is that the left hemisphere is perfectly capable of saying something like, “Look, I have no idea why I picked the shovel [object]—I had my brain split, don’t you remember? You probably presented something to the half of my brain that can’t talk; this happens to me all the time. You know I can’t tell you why I picked the shovel. Quit asking me this stupid question.” But it doesn’t say this. The left brain weaves its story in order to convince itself and you that it is in full control. (p. 25)

He then referred to the left brain interpreter somewhat affectionately as “the spin-doctor,” an unconscious process that is capable of finding explanation for the unexplainable. His model for the left brain leads to the conclusion that one cannot really trust the accuracy or reliability of verbal accounts or linguistic discourse. He posited the creative output of the right brain as a more reliable expression of experience or emotion.

From an evolutionary perspective, the interpreter is adaptive and is explained by several theorists and philosophers (Gazzaniga, 1998a) as follows. Telling the truth is viewed as highly desirable but rarely accomplished. Our spin-docors permit the construction of realities that justify our “lies,” that enable us to handle the anxiety of our nontruths or other less than honorable actions. It helps us to lie to ourselves, and perhaps that is both necessary and desirable. The spin-doctor is unconsciously invoked as needed to maintain homeostasis. This is admittedly a harsh viewpoint, but it certainly merits consideration. Additionally, Gazzaniga (1998a) claimed:

The interpreter influences other mental capacities, such as our ability to accurately recall past events. We are poor at doing that, and it is the interpreter’s fault…. The memory’s accuracy is influenced by which hemisphere is used. Only the left brain has an interpreter, so the left hemisphere has a predilection to interpret events that affect the accuracy of memory. The interpreterless right brain does not. (p. 25)

The implications of this view of the function of the left hemisphere for verbal or talk therapy are striking. The spin-doctor is just what is needed to create the story that provides the least pain or to create “realities” that are incongruent with the emotional truths of the right hemisphere. But what about the truths of the right hemisphere? Are they important? If so, are they more or less significant than the stories woven by the left hemisphere’s interpreter? When are they taken into consideration? The emergence of the field of art therapy and the more encompassing field of expressive arts therapy represents efforts to capture and use these right-brain truths.
Certainly, it is the rare client who presents with a split-brain, and thus the verbal discourse of the typical client may in fact reflect an integration of both left and right hemispheres. If this is the case, verbal discourse may be at the mercy of our defenses in ways that nonverbal discourse is not. How else does one explain the artistic messages that are obvious to a therapist but whose meaning only comes into the awareness of the client when he or she is ready to handle the reality? I describe below the integration of verbal and nonverbal discourse in therapy with a client suffering from anxiety and depression. The client’s nonverbal discourse includes a series of scribble drawings in which her lived experience unfolds in metaphor.

Annotated Scribble Drawings

Scribble drawings were first described by art educator Florence Cane (1951) as “a kind of play with a flowing continuous line” (p. 56). Cane was interested in initiating the creative process, but art therapists were quick to recognize the expressive qualities of the scribble and its potential for clinical work. By 1965, a diagnostic drawing series was formalized by art therapist Elinor Ulman who provided a protocol for use of the scribble and a personality assessment based upon a psychoanalytic interpretation of the drawings (Betensky, 1995). According to Rubin (2001), Winnicott’s (1971) later development of the “squiggle” game was apparently independent of Cane’s use of scribbles.

Betensky (1995) described the evolution of both diagnostic and therapeutic uses of the scribble drawing. She presented two approaches to the therapeutic use of scribble drawings: One emerges from the manifest content of the shapes and images identified by the client in the annotated scribble; the other evolves out of the lines and structure of the scribbles themselves. This paper focuses on the former approach in the belief that the shapes and images identified by clients represent an expression of their lived experience within the annotated scribble drawing.

The protocol used for the annotated scribble drawings is as follows. Because this is often a first art therapy experience, I engage the client in the act of banishing any critics from the room. I assure the client that there is no right or wrong and encourage him or her to trust the process. I typically supply 14” x 17” white paper and either felt-tipped markers or oil pastels for the drawings. We then practice making scribbles in the air to encourage the client to relax in the scribble-making process. Once comfortable with the scribble-making process, I find that clients often eagerly begin their drawings without practicing scribbles in the air. I encourage the client to choose either hand and to close his or her eyes to make the scribble. I then instruct the client to make one continuous scribble and to stop when he or she feels it is done. Occasionally, I intervene to keep the scribble from becoming too dense. It can be difficult to find images in dense scribbles. The remainder of the process borrows heavily from Betensky’s (1995) phenomenological intuiting and “What do you see?” protocol. We display the scribble and view it from a distance. I instruct the client to explore and concentrate on the scribble, noticing emergent shapes and images and any meanings that might be associated with them. Once identified, shapes and images are outlined and colored in; that is, the scribble is annotated. We then explore the meanings and relationships among the images in the annotated scribble.

The following instrumental case study provides an exploration of one client’s use of the annotated scribble to tell her story, an integration of left brain verbal discourse with right brain nonverbal discourse. The client presented with some discomfort with the talk process. Following the case study, I share additional client responses to the use of scribble drawings and some reflections on my experience of these responses.

Case Example

Terry is a woman in her mid 20s who presented with complaints of severe anxiety, panic attacks, and depression. She was unable to leave her home unless accompanied by family, to drive a car, to work, or to even use a telephone. Initially, cognitive therapy techniques—identifying cognitions, anxiety levels, and evidence supporting alternative cognitions—helped to reduce some of Terry’s anxiety, but I sensed there was more to her story than was being revealed in our discussions. In her third session, hoping to explore her more hidden concerns, I introduced her to scribble drawings. I explained that drawing sometimes provides a way for other parts of the brain, the nonverbal parts, to tell their story. What I discovered was a client with a penchant for metaphor as another story unfolded.

Terry’s first scribble drawing emerged during the 3rd week of treatment amid significant anxiety. Her scribble, shown in Figure 1, was shakily drawn. However, her anxiety level was greatly reduced after completing the drawing. Upon gaining reflective distance and studying the scribble, she readily identified images including a fox, ocean waves, and mountains, which she eagerly outlined and colored in. When I asked Terry to reflect upon any meaning associated with or relationships between the images, she commented:

![Figure 1](image-url)

Terry’s first scribble drawing and first “creature” (Week 3)
that the fox was “deformed, mean, lonely, and sad.” She identified the ocean waves as representing freedom and the mountains as a sanctuary. She did not directly identify herself as the fox, who was desirous of both freedom and sanctuary.

The freedom of motion apparent in Terry’s second scribble drawing, not shown, reflected her increasing comfort with the process. She identified a rose and “rose leaves in the midst of an intense storm.” She then commented that the “rose and leaves are strong and intact, withstanding the storm.” I was not sure what the storm was yet, but her comments led me to believe that she was capable of handling it.

In her third scribble drawing, not shown, Terry again identified a creature, one that she referred to as a loyal dog providing unconditional acceptance, protection, and guidance in an environment that was “a mess, a tangled web.” Following our discussion of the loyal dog, we engaged in a discussion of Terry’s interactions within her family. She stated, “If something goes wrong I have to fix it…. [My life] is on hold while I take care of my family.” By this time, she had become quite comfortable with the process, and it appeared that she even anticipated the point in the session when the paper and pens were provided. I had the feeling that she was prepared and somewhat eager to share her story in this metaphorical manner.

By week 6, Terry was engaged in the process and vigorously drew her fourth scribble, shown in Figure 2. She made reference to her “funny creatures” and outlined a swan stating, “Swans always hold their heads up, are beautiful, free, glide in the water.” She then revealed a different viewpoint by commenting that the swan “has its head bowed down, is sad, is lonely, no other swans are around, doesn’t relate to other creatures, has nobody.” Other creatures in the scribble include an opportunistic snake and a naïve angel; the snake “is pretending to be friendly but is only luring the angel without a care in the world.” This
time, Terry applied her metaphors directly to herself stating that she worried “that other people do not take precautions,” that she was “lonely like the swan,” and that she was “waiting for an opportunity like the snake.” I became fascinated by her use of this process, wondered where it was going, and wondered if, like the snake, she was luring me.

More intense references to Terry’s “storm” emerged in her fifth scribble, shown in Figure 3. Again, she vigorously executed the scribble and readily identified the images including a tattered hat, a dog “wounded in battle” that had “turned its back on its past,” a baby crawling in the background, and a saxophone. She continued to talk about the dog that had turned its back on its past, but not on the baby. The metaphor for her own lived experience was obvious; she stated in the first session that she was in therapy for her daughter, so she could be the parent that her daughter needed. Terry did not directly assume the role of any of the creatures this week. I wondered what was in the past that she had turned her back on. Since she stayed in metaphor that week, I chose to follow her lead, believing that she would eventually get to the “eye” of the storm.

Terry’s sixth scribble drawing, shown in Figure 4, is increasingly intense. The scribble is dense and the images are more ominous in appearance. Terry identified two faces, an elephant’s trunk and ear, male genitalia, and an apple. She then proceeded to tell a story about a face with its “soul being sucked into being the way the other soulless face was.” She then went on to describe her experience of being dominated by men and how an elephant never forgives or forgets. She was still dancing around her story. I wondered what needed to be forgiven and forgotten and how long to continue to dance with her. I reminded myself that it is the client’s process, not mine, that leads.

Terry’s next scribble, not shown, deviates markedly from her earlier ones. The scribble itself is more open and the single image, a “baby monster,” utilizes the entire scribble leaving no background as in her other drawings. She described the monster as “not as mean as he looks…[just] protecting self…and doesn’t want to be picked on anyhow.” I was not sure what this departure in style meant but was still patient and followed her process.

During the next 3 weeks, Terry spontaneously wrote a 20-page “story of my life,” that she shared with me. Her story reflected elements of a storm, but I was not sure that the struggles described in her paper were reflective of the storm in her scribble drawings. It was Terry’s eighth scribble drawing, shown in Figure 5, that revealed the nature of the storm. The scribble itself is somewhat more open but not markedly different from many of the earlier ones. The identified images—the creature with the detached head and cold eyes, the sword, and the numeral 8—reflect a different intensity. Terry stated that the 8-year-old creature was decapitated because of betrayal, its blue eyes reflecting sadness, coldness, and sorrow. At this point, I chose to abandon the metaphor and ask Terry directly if she was concerned about betrayal—whether or not she was or would be betraying others. She indicated that she was concerned. We reviewed the laws regarding mandated reporting. Although not entirely comfortable that her secrets would not be reported (they were not), she decided that she needed to reveal her secrets. She described her experience of trauma as an 8-year-old child. We again reviewed the laws on mandated reporting, and I hoped that her experience of being able to talk to me without being betrayed would be corrective.

One week after Terry’s disclosure, she created the scribble drawing shown in Figure 6. Her duck “is sad, feels all alone, [has] lost his family, been left behind.” The duck “is wondering what is on the other side of the tall grass.” She then wondered if “there is hope on the other side of the grass.” This was the first time that Terry had ventured outside the boundaries of her scribble in her metaphor, and the first time that she had directly referred to herself within the context of the drawing. She was anxious that I might reveal her disclosure of the previous week; I was concerned that her anxiety would cause her to reveal her secret when there was no reason to do so.

The drawings included in this case study represent weeks 3 through 14 of Terry’s treatment. She continued her weekly therapy and continued to scribble, but her images were more outwardly directed. She began to drive a car and applied for carefully selected jobs, tasks not possible 6 months earlier. She continued to struggle with anxiety but seemed to have developed more adaptive responses. We began sessions with all three generations of her family, and she was able to be assertive in her interactions with other family members.

Discussion

I chose Terry for this case study because she made particularly effective use of both verbal and nonverbal discourse in therapy. The scribble drawings provided her with a means for identifying her own truths, facilitated by the safety of metaphor. Her spontaneously created scribbles and the images stimulated by the visual “What do you see process?” interacted with her right brain truths. The narrative that Terry produced in response to the images served...
to integrate her right-hemisphere experiences with left-hemisphere understanding. It is important to note that it was the nonverbal process driving the verbal process that facilitated Terry's therapy. Scribble drawing provides just such an opportunity, but other forms of creative and artistic expression could be similarly used to gain access to right brain realities.

Not all clients respond as Terry did. I have used scribble drawings with other clients with varying degrees of success. All clients have been able to produce the scribble itself with minimal confusion or anxiety. It is the display, distance, view, and process of identifying shapes and images that manifest disparate responses. Some clients choose to ignore the instructions for the scribble and simply draw whatever they choose as they continue their verbal discourse. The drawings that emerge become the subject of discussion, and I simply follow these clients' penchant for this type of artistic expression.

More clinically challenging responses include concern over what the scribble "means" and how I might be "interpreting" it. Other clients want to know what I see in their scribbles. I deal with both of these issues clinically, explaining that what I see tells me more about myself than it does them and that it is what they see that will aid their therapeutic process. One client felt that I was not taking her problems seriously because she was asked to scribble. I explained my rationale (i.e., my hope that this method might reveal right brain truths), and the client now happily engages in the process and is even proud of her progress as it manifests in the art.

The most challenging client response for me is the inability to find shapes and images in the scribble. When asked to do so, clients unable to find images will typically respond with "I see a scribble," "I don't see anything," or "I see an eight or a circle." Betensky (1995) points to a lack of development of the self in clients unable to find images within the scribble. It would be interesting to explore this phenomenon in future work with scribble drawings.

Still other responses include an ability to identify images in the scribble but little ability to find either meaning for or relationships among the images. One client, a young woman, has progressed from being unable to identify any images to identifying images—but with limited ability to find meaning in the images. Her progress coincides with her increasing awareness of separateness from her mother. I wonder whether these events are related.

All of these responses leave me with questions. What is different about the clients who respond in such dramatically different ways to the same intervention? Would the client have progressed as well or better with a more traditional therapy? Are the clients who progress the ones who benefit most from creative work? Can developmental tasks such as differentiation or identity development be related to responses to annotated scribble drawings?

Summary

An understanding of the function of the two hemispheres of the brain argues for the use of left-brain verbal discourse as well as right-brain nonverbal discourse in the therapeutic process. In this instrumental case study, I illustrated the integration of left- and right-brain modalities with Terry, a young woman who presented with symptoms of anxiety, panic attacks, and depression. The left-brain modality was traditional talk therapy, while the right-brain modality focused on annotated scribble drawings.

Terry's use of scribble drawings was clearly resourceful, integrating both the nonverbal right brain and the verbal left brain with her identification of images and metaphorical stories. The creatures that manifested in her drawings gave voice to her concerns, and she began to express them more directly in therapy. Not all clients respond as Terry has. Many present challenges that argue for a different choice of nonverbal expression or, perhaps, for the patience to wait while the client develops and learns to both respond to and use the scribble method.

References


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**Call for Papers**

*Art Therapy: Journal of the American Art Therapy Association (Art Therapy)* is seeking submissions for the VIEWPOINTS section of the journal that are:

**Life Stories of Art Therapists of Color**

Asian-Americans, African-Americans, Latino-Americans, and Native Americans are invited to submit brief autobiographical stories of their experiences as art therapists. We are particularly interested in accounts by pioneer art therapists of color and those with 8-10 years experience or more. These articles should portray the authors’ cultural differences and ethnic viewpoints and how these cultural differences influenced and contributed to their work. Authors may also include cultural sensitivities necessary for conducting art therapy with their particular ethnic group. An additional page should list the author’s choices of “Pertinent Bibliography” of interest to art therapists. A photo of the author is welcome as is a photo of her/his artwork. We anticipate publishing a total of eight (8) articles, two (2) in the Viewpoints section of each issue of the 2006 journal. An editorial on the historical significance of chronicling the histories of art therapists of color will introduce the series, and a concluding article will use the storied narratives as a lens for a thematic analysis that focuses on art therapists of colors’ racial/ethnic identities and experiences.

The Guest Editor for the series will be Maxine Borowsky Junge, PhD, ATR, HLM, LCSW, the Guest Associate Editor will be Janice Hoshino, PhD, ATR-BC. As a model, the editors suggest that authors look at the life stories in the beginning of Ponterotto, J., Casas, J., Suzuki, L., & Alexander, C. (Eds.). (2001). *Handbook of Multicultural Counseling*. Thousand Oaks, CA: Sage. Questions should be addressed to Maxine Junge via e-mail at MBjunge@Whildbey.net.

The deadline for submissions is March 1, 2005.

Please refer to the “Guidelines for Submissions” and “Attention Authors” pages published in every issue of the journal for specific requirements regarding style and format of VIEWPOINT submissions. Send submissions to: Art Therapy Editor, c/o AATA, 1202 Allanson Road, Mundelein, Illinois 60060-3808.

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