USING THE TRIUNE BRAIN THEORY TO EXPLAIN WHY METAPHOR IS EFFECTIVE IN REDUCING ANXIETY

by

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The purpose of the study was to develop a theoretical model using the triune brain theory to explain why metaphor is effective in reducing anxiety. The triune brain has three divisions which show great differences in structure and function. The brain’s cortex (the rational brain), and the brain’s subcortex (the primitive and the limbic brains) intermesh and co-function as a “triune brain.” While consciousness exists at all levels, because of their differing functions, the cortex and the subcortex do not operate in harmony nor can they communicate easily. They use different vocabularies. MacLean (1973 and 1990) suggests the disjunction between the cortical and subcortical processes creates stress and anxiety. Brown’s (1977) structural model of consciousness clarifies cortical and subcortical cognition. Cortical levels are mostly rational, logical and capable of language. Subcortical levels are non-rational, non-logical, incapable of verbal language and engage in “magical thinking.” Metaphor may be a communications bridge between the primitive, magical thinking brain and rational brain. Metaphors have been useful in reducing anxiety. The Anxiety Resolution Metaphor (ARM) Model is offered to explain why metaphor therapy is effective in reducing subcortical anxiety. The ARM Model contains nine presuppositions about how the subcortex operates. Being mindful of them in counseling will assist therapists in communicating more effectively in metaphor to the client’s primitive and emotional parts. Using the presuppositions, cortical and subcortical
purposes may be more easily aligned for reduced anxiety and for growth and change to occur in the client.
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CHAPTER 1

THE PROBLEM

Introduction

Anxiety can be a debilitating response to unknown, unreal or irrational causes. Typically, anxiety reducing therapies, such as psychoanalysis and learning and behavior modification, try to deal rationally and willfully to voluntarily control or resolve the issues which provoke the anxiety. These therapies are mostly concerned with the evaluation of rational aspects of conscious human knowing and conscious behaviors.

Anxiety’s roots are sometimes not known consciously and, therefore, cannot be dealt with rationally and voluntarily. Yet, stories and metaphors seem to magically reduce anxiety. Creating a framework which integrates how unconscious thoughts and emotions produce anxiety would be a therapeutic advantage.

Development of the Problem

The need to contain and control costs in mental health has created a pressing interest to develop new approaches in brief therapy to reduce anxiety. Anxiety is a disorder that is experienced by many people. Treating anxiety is a concern of many therapists. Metaphor therapy has been thought to be effective but the mechanism by which it operates is not well known or understood. MacLean’s (1973 and 1990) triune brain model might be useful to explain how anxiety is reduced through the use of metaphor. MacLean’s (1973 and 1990) triune brain theory suggests that the brain’s
cortex, (the rational brain) and the brain’s subcortex (the primitive brain) do not operate in harmony nor can they communicate easily. He suggests these incongruities create stress and anxiety.

Remaining ignorant of the role of unconscious, non-rational dynamics of the brain’s functions limits therapeutic alternatives to reducing anxiety.

**Need For The Study**

Much of the human experience is out of conscious awareness. For example, advances in psychophysiology and psychoneuroimmunology have indicated a relationship between emotion, thought, behavior and physiology (Pert, 1986). Better understanding of the role of non-rational, non-cognitive causes of anxiety is needed to offer more treatment choices. A model that links and explains rational and irrational brain functions would enhance therapy options even further. Therapists and social workers seeking alternatives to medications and long term psychoanalysis may find this paradigm useful for brief therapy and generalized anxiety whose causes cannot be rationally or voluntarily discerned.

An individual could establish a clear communication between his higher order cortical processes and subcortical physical processes in order to induce a more harmonious integration of those (physiological and psychological) functions. He could learn the non-verbal language that his muscles, organs and limbs use to communicate with his higher functions. By learning the language of the body, he can adjust dysfunctional processes. In effect, an individual needs to learn to ask the unconscious for directions in a manner consistent with the arcane dictum ‘know thyself.’ (Pelletier, 1978, p.88)

Metaphor has been useful in the treatment of anxiety but how this reduces anxiety is not well understood. Understanding the way in which the technique works leads to more effective uses of the technique. The triune brain theory promises to assist in the development of the role of metaphor in treating anxiety. Creating a model that explains
anxiety and the way metaphor affects it could be beneficial.

The Purpose of the Study

The purpose of the study was to develop a theoretical model using the triune brain theory to explain why metaphor is effective in reducing anxiety.

The Research Question

What is the content of a theoretical model to explain why metaphor therapy is effective in reducing anxiety?

Definition of Terms

The triune brain: Developed by MacLean (1973, 1985, 1990), the brain has three different parts: the subcortex which consists of the reptilian (primitive) and the paleomammalian (limbic or emotional) brains and the neomammalian (neocortex or the rational brain). Each of these brains have their own unique intelligence and purpose. They combine to form the triune brain.

Anxiety: The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) classifies fourteen (14) definitions of anxiety according to three general categories that include phobic disorders, anxiety states and post traumatic stress disorder (APA 1994). Hall and Lindzey (1979) define anxiety as the experience of tension that results from the real or imagined threats to one’s security.

The structural model of cognition: Brown (1977) and Lewis (1992) suggest that consciousness exists at all levels of the brain although information which is conscious at one level may not be immediately available to the other level. Brown suggests that magical thinking is the process by which levels of the brain communicate.

Metaphor: “Metaphors are images that bridge different meanings by showing a
likeness between them. Metaphors transfers meaning from one object to another, thereby suggesting new and different understanding” (Ashbrook and Albright, 1997, p. 168).

Webster (1973) defines metaphor as a figure of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy. Examples of a metaphors include: “he is a bull; and “Juliet is the sun.” in Shakespeare’s Romeo and Juliet. Maschler (1994) suggests that metaphor is used in therapy to bring thought and feeling together as a mediator of intrapsychic conflict. Gillespie (1997) suggests that metaphor heals trauma, depression, powerlessness and substance abuse.
CHAPTER 2

LITERATURE REVIEW

Introduction

Some therapies strive to reduce anxiety via voluntary, willful, cognitive and behavioral change. Other treatments use indirect approaches, especially in situations involving anxiety, PTSD and depression. Since much of human awareness is unconscious, learning to communicate with the unconscious may provide new and alternative tools to reduce anxiety. This thesis builds upon the research of metaphor and the triune brain to develop a theoretical model to answer the research question: how is anxiety reduced using the triune brain theory and metaphor. The literature review examines the triune brain theory, the structural model of consciousness, the role of metaphor in therapy and the origins of anxiety.

The Triune Brain

MacLean (1973, 1985, 1990) viewed the brain like an archeology dig where the evolutionary brain forbears are preserved beneath successive outer brain layers. According to MacLean (1973), the deepest and oldest layer is the reptilian brain which resembles the brain of lizards and reptiles biologically and anatomically; the next level up in development is the paleomammalian brain (also known as the limbic system or
emotional brain). These two layers comprise the subcortex. The third brain is the cortex (or the neomammalian or rational brain) which reaches its peak in humans. It is rational and cognitive.

According to MacLean (1973), the subcortex is the brain of survival of self and the species. The subcortex is the brain of the inside world: concerned with physiological, emotional, subjective, survival and instinctive behaviors. The cortex is concerned with manipulating information from the outside world to satisfy needs as perceived cortically. MacLean (1973) has scientifically proven that emotion lies in the subcortex’s limbic system and has also demonstrated that this emotional brain cannot be “spoken” to cognitively by the logical, rational cortex. MacLean (1985) and Lewis (1992) postulated that when the triune brains do not operate in harmony (incongruity between what one brain feels emotionally and what the other knows cognitively) this conflict results in stress and anxiety. MacLean (1973) states that each of these brains have their own particular form of subjectivity, intelligence, sense of time and space and its own memory and motor functions.

The subcortex: The subcortex consists of the reptilian and paleomammalian or limbic brains. They are “hopelessly inarticulate.” (MacLean 1973 p. 18) The neural machinery does not exist for them to communicate verbally.

The reptilian brain: Winkelman (1996) describes MacLean’s concept of the reptilian brain to include the upper brain stem, much of the reticular activating system, the mid brain and the basil ganglia. Winkleman (1996) states that this brain: is oriented towards the physical and environmental; is programmed by ancestral learning and
memories; selects home sites, territory, hunts, breeds, forms social and leadership hierarchies; is precedent bound, ritualistic, compulsive to repetition and ritual, susceptible to imprinting and prone to imitation. It is the upper brain stem comprising the reticular activating system, the mid brain and the basal ganglia. It is the motor cortex and plays a fundamental role in the organism’s daily routines and behaviors.

the limbic system or emotional brain: MacLean (1973) describes this brain as the brain of emotion, attitude, smell, self preservation and preservation of the species. Its survival feelings are: hunger, thirst, suffocation, racing heart, terror, anger, foreboding feelings, paranoid feelings. Its resulting behaviors are: eating, drinking, anger, avoidance and fear. It turns up or down affective feelings that guide behavior for survival or preservation of the species. It is the home of the identity. Its role is in the expressive states of sociability, copulation and reproduction, and factors derived from nursing and maternal care.

Winkelman (1996, p.29) states that “the interaction of introspective and extrospective stimuli within the limbic system provides the basis for memory, ongoing experience and personal identity.” He states that chemical disorders create disturbances in mood, emotion, feelings of depersonalization and distortions of perception in this brain. According to Winkelman (1996), this is the brain where experiences are projected to adapt to internal and external environment. It contains the hypothalamus which is tied to and integrates emotional expression. It is the brain of a sense of self and memory. According to Winkleman (1996), it is the source of self awareness. “The non verbal limbic system generates the affects or feelings of conviction and a sense of authenticity
which humans use to substantiate mental ideas, concepts, beliefs and theories.”

(Winkelman, 1996, p.29)

The Neocortex or Rational Brain: According to MacLean (1973), the cortex (also known as the neomammalian brain) is characteristic of higher mammals and is highly evolved in man. It is the brain of reading, writing and arithmetic, analytical processes, problem solving, detailed memory, logic, and the generation and preservation of information, including cultural transmission. This brain is the mental brain, the source of vision. MacLean (1990) suggests that when visceral experience and vision connect what is viscerally experienced is visually remembered. The cortex is involved in memory and dreams. It connects visual and other structures involved in emotional and endocrine and somatovisceral reactions.

MacLean (1990) and Winkleman (1996) suggest that the subcortex and cortex interface in order to interpret and integrate information from the internal and external environments. A constant flow of information takes place across this interface. However, not all information which is available to the neocortex is available to the subcortex. And conversely, the subcortex possesses vast quantities of data which are not available at the cortical level of awareness and function (MacLean 1990).

MacLean (1973) states that choices made regarding the content of information transmitted across the cortical-subcortical interface appears to be made at the internal level of the limbic cortex. Thus it is the subcortical brain which decides what information regarding the internal environment is made available to the cortical centers. Unfortunately for the rational cortical mind, MacLean (1990) says that subcortical
systems seem to perceive time in a non-linear way which is often incomprehensible to the cortical mind. This state is reminiscent of trance or hypnotic states. Past, present and future are all one and events are not always perceived sequentially in their normal order of time. Likewise, time and space distortions are relevant where flashbacks to a time of trauma may delete or distort present reality or create anxiety about the future. MacLean (1990) regards dreams as the interaction of the subcortex and cortex.

Winkelman (1996) suggests that dreams are considered an example of a dialogue of the socially programmed “I” (the interaction of limbic system and cortex) and the biologically programmed (reptilian brain) “self.” Winkleman’s views on dreaming can be viewed as an internal dialogue with the interactive self through which feedback and ideas are exchanged in an understandable (though non-rational) way between the three brains.

Anxiety

With MacLean’s research into the organism’s need for stability, ritual and survival, one can imagine the origin of anxiety. For example, Hall and Lindzey (1979) define anxiety as the experience of tension that results from the real or imagined threats to one’s survival. Maitland (1995) defines anxiety as the threat of non-being. In contrast to fear, where one is afraid of a specific object, person or situation, anxiety has no specific object. Anxiety “is more global than fear, it seems to be everywhere around you, and, unlike fear, threatens the very core of your being” (Maitland, 1995,p.48.). Maitland (1995) characterizes anxiety as disorientation, the threat of dissolution of oriented space, a threat of the loss of one’s very space to be.
The DSM-IV classifies anxiety according to three general categories that include phobic disorders, anxiety states and post traumatic stress disorder (APA 1994). By reviewing the definitions of anxiety and understanding the triune brain model, it is not difficult to imagine how each of these anxiety disorders has its roots firmly anchored in the subcortex’s quest for survival and experience of emotion. By way of example, Table 1 contains eight of the fourteen definitions of anxiety.

Table 1. Examples of Anxiety Disorders and Their Definitions

<table>
<thead>
<tr>
<th>Anxiety disorders: examples</th>
<th>Partial definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panic attack</td>
<td>Intense onset of apprehension or fear or terror</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>Avoidance of places or situations where escape may be difficult</td>
</tr>
<tr>
<td>Specific Phobia</td>
<td>Anxiety provoked by exposure to a feared object or situation. Often leads to avoidance</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>Anxiety provoked by social or performance situations. Leads to avoidance</td>
</tr>
<tr>
<td>Obsessive Compulsive Disorder</td>
<td>Obsessions which cause anxiety or compulsions to neutralize anxiety</td>
</tr>
<tr>
<td>Post Traumatic Stress Disorder</td>
<td>Re-experiencing an earlier traumatic event accompanied by increase arousal and avoidance of stimuli associated with the trauma</td>
</tr>
<tr>
<td>Acute Stress Disorder</td>
<td>Occurs immediately after an extremely traumatic event</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>At least 6 months of anxiety or worry</td>
</tr>
</tbody>
</table>


Other sources’ descriptions of anxiety’s causes appear to allude to and corroborate the role of the subcortex in the creation of anxiety.

Freud cited in Hall and Lindzey (1979) recognized three types of anxiety: 1) the Basic type is reality anxiety or fear of the real dangers of the external world; 2) Neurotic anxiety is the fear that instincts will get out of control and the individual will be punished: and 3) Moral anxiety is fear of the conscience.
Wolfe (cited in Hollandsworth 1986) suggests that subjective experience, impaired performance and avoidance responses combine to define anxiety. One can almost imagine a cornered animal in Wolfe’s definition.

Hollandsworth (1986, p113) suggests three states exist and combine when an organism is experiencing anxiety. Three states of anxiety are:

1. The Autonomic Mode is heightened arousal and has related psychophysiological symptoms such as sleep difficulty, fatigue, diarrhea, dermatological disorders.

2. The Motoric Mode which is characterized by muscular tension and disruptions in motor performance.

3. The Cognitive Mode which has disruption in attention and cognitive functioning.

Hollingsworth (1986) also suggests that treatment of all three states aggregate to reduce anxiety. While treating muscular tension may reduce anxiety, modalities to reduce arousal and to improve cognitive functioning would add to the effectiveness of anxiety reducing treatments. One can speculate how a combination of massage, cognitive therapy, meditation, exercise, diet, goal setting, and psychotherapy might combine to neutralize the aroused states which may produce anxiety.

MacLean (1990) states that the three brains are intermeshed and, to the extent that they are not in harmony in their views of the world, they will be in conflict. Lewis (1992) suggests that this may be the origin of anxiety where there is a discrepancy between the higher cognitive functions mediated by the neocortex and the emotional and motivational states mediated by the subcortical regions. The result: incongruence between what one knows and what one feels.
As mentioned above, the manifestation of the conflict may be emotional or physical symptoms. MacLean (1973) suggests that bridging cortical and subcortical miscommunications may lead to reduced anxiety. MacLean (1990) suggests that memories are a result of visceral experience bonded to visual experience governed by an active and alert cortex. He also suggests that anxiety is cortical arousal in present or anticipating future events in relation to self preservation or survival of the species.

Lewis (1992) suggests that the triune brain is helpful in understanding psychosomatic disorders and anxiety dominated conditions as well as in conceptualizing treatments. She suggests that psychosomatic and anxiety disordered patients who typically lack the ability to express emotion verbally (through neocortical representation) have increased traffic through their autonomic circuits. This leads to ulcers and other disorders such as headaches and hypertension.

MacLean (1990) states that due to these psychosomatic responses without the ability to verbalize them, verbal interaction with the patient at the outset of therapy is not going to accomplish much. MacLean (1990) suggests that the therapist should undertake activities which are “dis alarming” and speak to the limbic brain. He suggests these procedures should be similar to hypnosis protocols wherein one should be mindful of tone and tempo of voice, manner of gestures, and non verbal expressions especially those which reveal interest and sympathy.

**The Structural Model Of Cognition**

Jason Brown (1977) developed the structural model of cognition based on the triune brain. He states that cognition and consciousness are manifested at each of three
levels: primitive, emotional and rational. Brown (1977) and Lewis (1992) suggest that while consciousness exists at all levels, information which is conscious at one level may not be immediately available to the other level. Further, Brown (1977) states that the primitive and emotional brains use primitive, concrete, magical thinking processes while the cortex uses more familiar and socially rewarding logical and representational processes.

Brown (1977) and MacLean (1973) state that the primitive brain functions in the most primitive mode: the world is experienced at a sensory motor level with little or no differentiation between self and others. The primitive brain generates repetitive survival related behaviors. MacLean (1973) states that the paleomammalian brain, the emotional brain, is able to use and to store visual images and is capable of differentiating self from others. Objective thinking and complex representational memory occur in the neocortex.

Brown (1977) suggests that subcortical processes are representative of cognition observed in small children who exhibit “magical thinking.” Brown states that this magical thinking is similar Frazer and Mauss’ two laws of magical thinking:

1. The law of contagion states that things which have once been in contact with each other may continue to influence each other after physical contact has been discontinued. This happens by way of a transfer of some of their properties through an essence.

2. The law of similarity states that things which are similar share fundamental properties. An image also manifests the essence of its source so that the action applied to the image affects the source as well. (Brown, 1977, p.89)

Sheikh (1977, p.204) further elaborated on magical thinking by articulating Four Laws of the Psyche:
Part = Whole;
Wish = Action;
Contact = Unification;
Imitation = Reality or Image = Object.

Examples of these laws are:

Part=Whole: A woman’s husband was out of town on business. She was fine during the day but at bed time found herself restless and unable to sleep. She went to the closet and put on his pajamas. She was asleep within minutes.

Wish=Action: A woman had an argument with her sister. She was really angry and told her sister to “drop dead.” As she drove home, her anger changed in to guilt and anxiety. She did not feel right until she called her sister and apologized.

Contact=Unification: A friend was going through a divorce. She was in a lot of pain, feeling like a bad mother, a failure and unattractive. Her sister listened to her and tried to comfort her as best she could. When she left her sister’s house, she felt awful!

Imitation = Reality: A woman had an awful dream that a pack of dogs had attacked and killed her cat. She woke up in bed and knew it was only a dream but was upset and anxious. She could not go back to sleep until she got up and found the cat and cuddled her for a few minutes.

Brown (1977) notes that these magical laws find expression in human behavior. For example, the “wish = action” scenario is evidenced in many positive thinking techniques that affirm that one creates one’s futures by wishing for what one wants. The
contact = unification law is the foundation for empathy, ecstatic experiences with rock stars, and religious experience of uniting with a higher power. Imitation = Reality is the principle of magical thinking used to heal tumors by eliciting visual imagery.

Rozin, Millman and Nemeroff, (1986) state that the principles of magic, thought to be a characteristic of many primitive belief systems and rituals, are also operative in some aspects of daily life in modern western culture. In addition, subcortical systems seem to perceive time in a non-linear way which is often incomprehensible to the cortical mind (MacLean 1973). Spiegel & Spiegel (1978) cited in MacLean (1973) suggest how this perception of time functions parallels descriptions of time distortion in hypnosis literature. The existence of consciousness at all levels combined with magical thinking sets the stage for the power of metaphor in reducing anxiety.

**Metaphor**

In the counseling context, metaphors seed ideas or focus attention and indirectly influence the client. According to Hammond (1990), metaphors may illustrate a point or tag a memory to indirectly suggest or model solutions; and they may facilitate behavioral, affective or cognitive-perceptual change. Hammond (1990) states that metaphors are typically stories, real or imagined, which make a point or expose a truism about life experience.

An example illustrates a metaphor for assisting people to appreciate what may be disappointing situations:

Fleming’s discovery of penicillin was serendipitous. He was working in his laboratory with some disease causing bacteria. There were growing on a culture plate which became contaminated by a mold. Some investigators would probably
have thrown out the contaminated plate, but Fleming looked at it and noticed the bacteria were dying where the mold was growing. This proved to be due to a substance produced by the mold, later named penicillin. So, things should not always be taken at their face value. (Hammond, 1990, pp. 37-38)

“Metaphors are images that bridge different meanings by showing a likeness between them. Metaphors transfer meaning from one object to another, thereby suggesting new and different understanding” (Ashbrook, 1997, p. 168).

Erickson, Rossi and Rossi (1976) indicate that metaphors are windows to the unconscious and are widely accepted as therapeutic tools where they tend to work at the unconscious level, bypassing the conscious mind.

Donlan (1986) states that the purpose of metaphor in therapy is to transfer skills from a context with which the client is familiar to a context in which it would solve the problem. Dolan (1986) also suggests that if the metaphor is derived from the client’s own experience and perceptions, metaphor techniques are likely to succeed when more traditional forms of therapy have failed.

Kopp (1995) suggests that metaphors are a powerful vehicle for therapeutic work in that they combine two modes of cognition: logical cognition and imaginal rationality into a third form: metaphoric cognition. According to Kopp (1995), MacLean’s triune brain theory suggests that the organism responds psychologically and physically to internally generated metaphors. Kopp (1995, p.169) suggests that “metaphor is the language of the brain which bridges and connects rationality with emotion.” He suggests that anxiety can be reduced through client generated metaphor therapy.
Research has indicated that metaphors are the root of creativity and even central to the role in the evolution of language and thought in homo sapiens. Langer (1986) cited in Kopp (1995) suggests that metaphor is the principle through which language develops and that literal language is the repository of faded metaphors. This has implications for therapeutic change. “The exploration and transformation of client generated metaphors can yield new meanings and new ideas and experiences can result from evoking and transforming metaphoric images” (Kopp, 1995, p. 94).

When clients stay within their own metaphors and expand and elaborate on them, the meaning and insights gained can be more profound than if the metaphor is talked about or analyzed. Moreover, if metaphors are generated from their own experiences, they are more likely to succeed than traditional forms of therapy.” (Kopp, 1995, p. 97)

Metaphors are teaching tools, vehicles for therapeutic communication, and instruments for change. According to Donlan (1986) because of their indirectness, metaphors can reach even the most fearful or suspicious client and that a good metaphor can provide the client with a comprehensible road map for current directions, awareness and problem resolutions. Donlan (1986) states that metaphors may be incomprehensible consciously but are understandable on the unconscious level. Metaphors can elicit an unconscious search for an appropriate and adaptive solution to a problem by drawing on a client’s own inner resources. As such, the solution is tailor-made and within the framework of the client’s experience and resources.

Crider & Cirillo (1991); Fredrick & Phillips (1995); Matthews & Dardeck (1995); and Wing (1994) suggest that client metaphors reveal competing external and internal
interests and that treatment using metaphor may be useful in talking to competing interests. Wing (1994) suggests that metaphor therapy can alleviate trauma, reoccurring nightmares and trauma. Maschler (1994) states that metaphor is a ubiquitous form of human communication and mediator of intrapsychic conflict. Goldberg (1993) states that metaphor may be viewed as central to human thought, a perspective is echoed by Fatic (1993). Sudarsky-Gleiser (undated) asserts that the advantages of using metaphor includes: bypassing resistance, communicating with conscious and unconscious processes at the same time, facilitating growth and healing. King (1997) states that a proper emotional environment is needed for learning and that learning does not take place in the face of threat.

Erickson, Rossi and Rossi (1976) comment that the use of metaphor may be even more effective if the metaphor incorporates the idiosyncratic way a person takes in, stores and later recalls information. These accessing cues can be identified by the descriptive words they use. Effective metaphors are those which identify and incorporate the client’s perceptions, internal resources and preferred patterns of communicating.

Metaphors seem to have such an impact when used in therapy and hypnosis. Lang (1996) suggests that experience, emotions and survival responses are stored and retrievable holographically, are stored in the emotional brain, can be triggered to resurrect themselves, and can be decoded in therapy. Lang (1996) suggests that when experience is resurrected or reframed, new metaphors may combine with old and new information to recreate a new metaphor reality of new possibilities. Lang (1996) cautions that these new
possibilities, partly adapted from triggered and from stored memories, may be functional or dysfunctional.

Kennedy & Vervaeke (1993) have concluded scientific investigations which indicate that 1) experience triggers or instigates an individual’s pervasive metaphorical system; 2) that metaphors are derived from basic experiences and that metaphors are projections of an individual’s experiences.

Korzybski in Gozzi (1995) defines “projection” as a reversal of order in the abstracting process and suggests that instead of abstracting from the lower order of sensations into the higher order of ideas, people sometimes have ideas first, but experience them as lower order sensations. This reversal transforms the external world into quite a different and fictitious entity. This reversal of order of abstraction may be potentially threatening to one’s survival. In Korzybski’s scenario of projection, as images of people or events are constructed, materials from the unconscious mind are used. The resulting image is a compromise between the information coming from the external senses and the fantasies and desires of our unconscious. This reversal of abstraction may account for beliefs and thoughts which underlie our misfortunes and misjudgments. They may be the source of anxiety where the rational mind says one thing while our unconscious delivers different, non-verbal information based on previous experience and their resulting non-verbal metaphorical structures holographically imbedded in our minds and bodies!
Gozzi (1995) elaborates and recounts Korzybski’s concept of metaphor as projection stating that a person’s nervous system constructs holographic images that are experienced as space-time and within which one lives. Senses construct a virtual reality!

Kopp (1995, p.194) labels this melding of logical cognition and imagination as “metaphor cognition.” Moreover, he asserts that the “metaphoric structure of individual reality is stored as neural holograms which are dispersed throughout the brain and can be activated” (Kopp, 1995, p. 169). This research corroborates other research which found that right brain damaged people have difficulty in understanding or interpreting metaphors (Burgess and Chiarello, 1996).

As discussed above, holograms are supported by research in neuroanatomy and neurophysiology. Auditory, somatosensory, motor, and visual systems of the brain processes input from the senses in wave patterns and they are stored as holograms. These holosensory images are processed and stored throughout the brain. Pribram’s brain research as cited in Kopp (1995) reveals that brain cells are basically frequency analyzers. Cells in the auditory sensory modality analyze tone patterns in time, cells in the visual modality analyze visual patterns in space. “Thus image formation in the mind’s eye is caused by the visual nervous system reconstructing three dimensional holographic images that are projected away from their source of origin as wave or frequency patterns” (Kopp, 1995, p. 167). This is supported by Kosslyn’s work in Kopp (1996) which suggests that the formation of the inner image takes place at sites away from where the neural activity takes place. Kopp (1995, p. 91) states that “good metaphors are vivid
because they can ‘set before the eyes’ the sense that they display. It is through this picturing function that the metaphoric meaning is conveyed."

Kopps (1995) suggests that the concept that memory is stored in multi sensory based holograms is useful for therapy. For regressive work and reframing exercise in Neurolinguistic Programming (NLP), data suggests that retrieval of memory stores only requires the repetition of patterns (or essential parts of patterns) that initially originated storage. Put differently, if current metaphors can trigger early metaphors because of their similarity, then the deeply imbedded patterns of an early recollection or image can be "read out" of stored memory (the wave pattern). This has broad implications for the rewriting of early recollection which may result in a new transformed holographic, holosensory image of the memory.

To summarize, if metaphoric images are neural holograms which can be retrieved according to holographic principles, then individual reality is likewise construed, stored, and retrieved according to holographic principles. Therapies which act on the hologram transform the hologram, resulting in a new reality, so to speak.

One of the most famous of people working within client-generated metaphors was Milton Erickson. Known for his work in hypnotherapy, Erickson achieved international acclaim helping clients discover internal resources to solve difficult problems. According to Ritterman (1986), Erickson believed that each human mind, inclusive of all cognitive, affective, motor, kinesthetic, perceptual and physiological behavior, is a unique and underutilized resource. His life work was helping people, typically in trance states, to utilize the capabilities to solve problems in living. He helped patients collect useful
memories and ideas scattered or repressed throughout their belief systems and integrate those in to new sets of beliefs or states of consciousness complete with physiological and intersectional components. (Ritterman, 1986)

According to Ritterman (1986), Milton Erickson worked outwards from the inside of an individual and helped individuals rearrange their interior reality before they ventured forth to change their relational landscape. Ritterman (1986) states that Erickson believed, and holographic images and metaphor research suggest, that behavior changes in the patient’s interior associative maps will catalyze new reactions in broader, external social contexts.

Hypnosis was central to the therapy because Erickson converted the unconscious from a source of resistance into a resource. Ritterman (1986) stated that Erickson believed that people were bound by their own certainties, beliefs, perceptions, physiological responses or relational habits. Erickson in Ritterman (1986) believed that people’s very linear logic preclude them from experiencing alternatives for new experiences and understandings. Erickson strived to help people scale their own limitations by helping them reconfigure their internal experiences to creative solutions.

Summary

MacLean’s triune brain theory suggests a foundation for understanding anxiety. Humans have three brains. Two are located in the subcortex, a reptilian brain which seeks survival and ritual and the limbic (emotional) brain which deals in subjectivity and affect. The cortex (the rational brain) is the mind of thinking and analysis. Each brain has particular needs and generates behaviors - survival, emotional and rational, in response to
those needs. For example, the rational brain pays little attention to internally generated feelings but it is alert to present and anticipates future events. The reptilian brain cares little for the future and emphasizes habit and security.

These needs and behaviors may conflict with each other. Moreover, these brains have difficulty communicating. MacLean’s theory suggests that the subcortex is hopelessly inarticulate and non-verbal and cannot communicate with the cortex in language the cortex understands. MacLean suggests this lack of communication explains why stress and anxiety ensue. With one dominating or blocking the other, anxiety is created and barriers to learning new ways of being result.

Kopp (1995) and Erickson, Rossi and Rossi (1976) suggest that metaphors are the language and tools which bridge and connect cortical and subcortical communications. Kopp and others scientifically demonstrate that individual reality as stored neural holograms. Making the intellectual deductive leap that metaphors are contained in these holograms is not difficult. Kopp (1995) and Erickson, Rossi and Rossi (1976) suggest that client generated metaphors can unveil the unconscious symbols and representations of subcortical internal states and provide the theater in which cognitive and subjective change can be effected holistically.
CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to develop a theoretical model using the triune brain theory to explain why metaphor is effective in reducing anxiety. MacLean’s triune brain theory (1973, 1985, 1990) suggests why rational discussion of emotional issues may not be as effective in reducing anxiety. MacLean and others suggest that the triune brains do not speak the same language and have different needs which generate different, often conflicting, behaviors. Metaphor has been effective in helping to reduce anxiety. It is possible that metaphor is the communications system which bridges and speaks separately with and yet collectively to the primitive, emotional and rational brains.

Research Design

The research project was constructed as an exploratory descriptive design. This methodology was chosen because the purpose of the study was to develop new connections to theories and practices which have not been connected before: the triune brain, metaphor and anxiety. Merriam and Simpson (1995, p. 61) elaborate on the purpose of descriptive research:

Its purpose is not to give value to sets of relationships between events, but simply to draw attention to the degree that two events or phenomenon are related…In descriptive research, the researcher does not manipulate variables or control the environment in which the study takes place. Its purpose is to systematically
describe the facts and characteristics of a given phenomenon, population or area of interest.

While the exploratory research descriptive design has weaknesses in terms of statistical, analytic and predictive power, it does have strengths. The descriptive design allows a creative process to occur. Just as metaphor may become the bridge that joins the emotional and the rational, the exploratory descriptive design builds bridges and sanctions informed connections between previously unconnected theories and paradigms.

If the theoretical model using the triune brain theory to reduce anxiety shows promise, future research should be more disciplined by employing the experimental research design. Experimental and quantitative analysis should follow.

**Assumptions and Limitations**

By its exploratory nature, this research approach is only as good as the literature available and the researcher’s ability to make justifiable, logical connections between paradigms previously unconnected. It was assumed that all the necessary ingredients are in available literature and within the researcher.

The research question was: what is the content of a theoretical model to explain why metaphor therapy is effective in reducing anxiety? Nevertheless, the research and literature review may have overlooked or dismissed material which demonstrates that a case should not be made to develop this theoretical model. To offset this natural bias, the researcher made a continuous, conscious decision to be alert to discovering articles or concepts which suggested that a connection cannot be made between the triune brain theory and the reduction of anxiety. Fortunately, no sources appeared. The absence of conflicting literature may be due to the unique niche of this inquiry. It may also be due to
limited research sources. For example, several thesis abstracts from the U.S.A., England, Australia and Canada suggested additional material for this inquiry. The researcher elected not to secure these documents because of a combination of factors: their cost, the time to acquire them, and the probability that they were not reproduced as yet to be made available to researchers throughout the world.

Another limitation was the researcher’s ability to interpret several of the scholarly articles which relate to this thesis. Despite a serious effort to fathom them, several of them were mired in chemical, biological, epistemological, computational, and psychoanalytical terms and concepts which were unintelligible to the researcher.

The greatest limitation is the veracity of the linkages suggested by the researcher. How does one design a protocol or disciplined inquiry which further refines and verifies the linkages of triune brain theory and the use of metaphor to reduce anxiety? Indeed, MacLean’s electrical stimulation of brain-damaged patients suggests a scientific environment for further inquiry. The ability to stimulate and or monitor portions of the brain’s processing is advancing every year. Establishing the controls and research design for a more disciplined research design is for others. The use of metaphor in reducing anxiety may be tested qualitatively but making the link to the unconscious brain processes is a technology unknown to the author.

**Source of the Data**

As an exploratory, descriptive research project, the data gathering technique was a comprehensive book, article and internet search to uncover articles and books which make the connection between the triune brain, anxiety and metaphor. In addition to books
and articles cited in the bibliography, internet search engines were accessed. Key word and author searches were conducted in the following databases: Lexus/Nexus, PsychInfo, PsychLit, Dissertation Abstracts International, northernlights.com, electriclibrary.com, socialpsychologynetwork.com, bibliomania.com, and reference.com. Finally, references, footnotes and bibliographies from books and articles were reviewed to uncover additional secondary and primary sources for further literature searches.

Chapter 4 demonstrates, by personal case study and literature review, how using the triune brain’s concepts of personal safety, survival, and emotional vs. rational reactions are used in counseling situations to facilitate the reduction of anxiety via the use of metaphor. An Anxiety Resolution Metaphor (ARM) Model is presented.
CHAPTER 4

ANXIETY RESOLUTION METAPHOR (ARM) MODEL

Introduction

The purpose of the study was to develop a theoretical model using the triune brain theory to explain why metaphor is effective in reducing anxiety. This chapter offers the content of that model: the Anxiety Resolution Metaphor (ARM) model.

The literature review demonstrated potential connections between anxiety, the triune brain theory and metaphor. Case studies from the researcher’s experience are included in this chapter to amplify on the model’s content.

Model Overview

A crucial ingredient in reducing anxiety is understanding and communicating in metaphor with the triune brain’s primitive and emotional brains. These two brains are “non-verbal” and, as MacLean (1973) intimated, likely to be ignored by the cortex. Since the primitive brain is not capable of verbal language, but rather expresses itself in emotion and physical response, the literature and personal experience has indicated that metaphors are five-sense packed constructs which may be the bridge to uniting all three parts of the triune brain. Like the Russian “nesting dolls,” metaphors contain ample meanings at different levels to communicate with all three brain’s needs.
The subcortex is where the “therapy” work needs to be done. It is where the bulk of the content of a theoretical model needs to be developed. The subcortex, while it responds to internally generated survival oriented sensations, receives additional input from the perceptions of the external world as perceived by the cortex. While the subcortex’s programming is to choose behaviors which are ritualistic and safe, it needs to survive by adapting to external forces as perceived cortically. Since the cortex is oriented toward the environment, what the cortex perceives may be perceived differently by the subcortex.

The literature suggests that the cortex and the subcortex do not speak the same language and situations may be subject to multiple interpretations as perceived cortically, subcortically, metaphorically, and holographically. For example, the cortex may tend to ignore physiological and anxiety symptoms such as fatigue, emotions and, maybe, even pain in order to master the external social environment. But the subcortex is responsible for sensing needs and maintaining health. The cortex, ignorant or avoiding internally generated signals, strives to meet the demands of the external world and systematically ignores the subcorticilly generated information. Since the primitive brain is not acknowledged cortically and is incapable of language except senses, emotion, image, memory and physical responses, it produces a physiological and/or metaphorical response which gets the attention of the cortex. Since the subcortex responds somatically, what does not get responded to cortically persists and amplifies until responded to cortically thereby fulfilling the maxim: what you resist, persists.
These subcortical responses may be anxiety, illness or possible depression. The researcher believes that the proposed model has therapeutic implications which extend beyond reducing anxiety into physical healing. Given the primitive brain’s penchant for expressing itself somatically, improved communication may reveal another key to true holistic health of the mind, body and spirit. But this research and discussion falls to others.

**Presuppositions for the ARM Model Dealing with the Subcortex**

Since resolving anxiety requires speaking in the language of the subcortex, certain presuppositions may set the stage for better communication with the subcortex. Only when cortical and subcortical purposes can be aligned will growth and change occur. The researcher suggests that the ARM Model has the following therapeutic presuppositions to be used when dealing with the subcortex in an attempt to reduce anxiety.

1. **Impose no danger as perceived cortically.**

   For learning and communication to occur, the environment must be safe as perceived from a rational, objective perspective. Neither real, nor imagined fears (as discussed in the following presuppositions) must be present. A safe environment allows for conscious rapport to build and opens the gateway for accessing the unconscious.

   Furthermore, the conscious mind needs to be educated that the body and anxious responses have positive intents: survival. Accepting this perspective creates the possibility for a collaborative relationship which validates the roles and responses of the
three brains: the primitive, the emotional and the rational. An example of working with what the body and mind present follows.

The researcher had a client who had considerable anxiety, panic and was short of breath. When asked what she wanted to do, she said: “curl up in the corner and put a blanket over my head.” Consciously, she thought this response was silly and childish. It was suggested that, as an experiment, she try it. She did and within a few minutes her breathing returned to normal. She was amazed at what giving in to body responses can do to comfort itself. After some discussion, she learned that rather than fighting her subcortical responses, she could seek alliances with them by listening to and responding to them.

2. Subcortical responses have a positive intent, are purposeful in terms of survival and should be respected.

Without the active participation of the subcortex people would die. After some education on the unconscious and regular functions of the autonomic nervous system, one should develop a new respect for these previously underappreciated parts. Once the subcortex is assured that its survival needs will be met, that its signals will be acted upon with commitment and respect, and that the environment is safe and predictable, it is likely that much energy could be released to collaborate with the cortex. In a metaphorical way, when this respect is in place, a “relieved child” is in place. Empowering experience with new interest and curiosity should make possible new learning and rededications.

MacLean’s basic theory points to the role of the brain in helping the organism survive. Fear, anxiety, and physiological responses are manifestations of these primitive
inner forces. Anything which is perceived to affirm and support life will be welcomed by
the primitive parts. Since the subcortex acts to save the species, even a “negative”
response has a positive intent which is the survival of the species. Clients should know
that their responses and symptoms can be both involuntary and meaningful. By making
subjective states legitimate in terms of survival, anxious clients are likely to give more
respect to and less blame to their symptoms. By providing this new perspective on the
power of the subcortex, its complex intelligence and skills, clients may see their
responses as having a positive intent worth working with, rather than avoiding. Said
differently, the subcortex can be regarded as the ultimate expert on what is needed to
survive and be well.

An example from the researcher’s practice illustrates that subcortical responses can be
worked with to reduce anxiety:

My son was sent to the Persian Gulf a second time, this time as part of
Desert Storm. He was leaving his wife and a two and a half year old son, Chase.
While we were gathered together at his home to say good-bye, the fear and
tension was great throughout the family. My grandson was in the middle of this
stressful situation not quite understanding the anxiety that was running rampant.

To break some of the tension, I took Chase for a ride in the car. I was
driving and he sat in his car seat in the back. I noticed he looked pale. I asked him
how he was feeling and he said that he thought that a big bad man who doesn’t
like children was going to hurt his daddy. He was afraid for his daddy and for
himself. He said that his mommy or someone should help his daddy because his
daddy did not have enough muscles to beat up the bad man (Sadam Hussein).

I realized that Chase not only felt helpless but that his father was going to
war alone and would be helpless, too. I decided to go to Kmart and let Chase
discover and manifest something which represented an internal metaphor that
would empower him and diminish his fears for himself and for his daddy. I asked
him to look through the books and toys and tell me what he thought would help
his daddy be strong and have big muscles. He picked out pictures of dinosaurs and
Ninja turtles. We bought the books, went home and supported him in making a
collage of dinosaurs and Ninja turtles that were helpers for his daddy.
When he finished the collage, we hung it up in the living room where all could see and experience it. The collage characters of dinosaurs and Ninja turtles became part of the family, always ready to be seen and talked to! Over the next few days, my grandson would run up to the poster and pretend to be a Ninja turtle and pretend to fight the bad guy. He became more outgoing and acted more confidently. After my son left for the war, my daughter-in-law said that she had to buy Ninja underwear and pajamas for Chase. He always wore the underwear and slept in the pajamas every night until his daddy returned.

3. Subcortical responses are capable of learning in the context of safety, respect, and magical thinking.

Animals and people do not excel when under stress or threatened. Dog trainers and teachers constantly exhibit support and encouragement in their training. When the subcortex perceives danger, respect it. Invite it to educate on its needs and fears. By eliminating perceived danger, the doors are open for education and transformation.

An example from work at St. Luke’s Chemical Dependency Unit illustrates what transformations may take place when the subcortex’s internally generated images are given respect and a “voice.”

Tom was an alcoholic who had returned repeatedly to the hospital trying to get sober. He was always very hostile, belligerent, and argumentative. He was also fearful as he returned to the hospital for test results. The doctor informed him that he had severe liver dysfunction and that if he did not get sober he would die.

He left the hospital, returned to drinking and admitted himself for treatment a month later. Nobody really wanted to work with him as he was so defiant. During a break I found him sitting alone outside. I thought that this might be an appropriate time to try my metaphor work.

I built rapport with him by pacing his tone, speed of voice and mirroring back some of his body gestures. He relaxed and proceeded to tell me all the things that he didn’t like about the place and everyone in it. I surmised that he was afraid and paranoid. He did not trust anyone.

I asked him to put a picture and his age to his feelings. He said he was about thirteen years old and was standing in the middle of a forest and did not know how to get out. He said he was afraid. He said he intuitively knew there was a way to a clearing on the outside of the forest but he was afraid that he
would not be protected in the clearing. So he was afraid to try to find his way out. He also was afraid he didn’t know the way and would get lost.

I asked the boy if there was someone or something real or imagined that would help him feel safe in the forest. He said his dog because he trusted the instincts of his dog. I further asked the boy if he needed more in order to feel safe in the forest. He said his father could be there with him. I asked him if his father was a safe person to have around and if he trusted him. The boy said yes. I asked the boy if he needed anything else to feel safe in the forest and feel safe about finding his way to the clearing. The boy said yes an Indian could guide him, his dog and his father to the clearing. I asked him if he felt safe enough to find the clearing. He said he wanted to be able to see if the clearing was a safe place before starting. I said how can you (the boy) see the clearing from where you are. The boy said I can climb a tree and look around. At this point, Tom relaxed his shoulders, his breathing became more rhythmic, and the color returned to his face and the lines in his face smoothed out and relaxed. These physiological responses and the softening of the tone of voice told me he had all he needed for now. Tom remained in treatment and agreed to long term residential treatment. He became cooperative, appreciative and even affectionate at times.

4. While the subcortex wants to adapt to the environment to learn, information must be presented in the context of safety and in a form such as metaphor that can be easily assimilated.

Unconscious processes are willing to communicate with the cortical processes and suggest that metaphors are active in this dialogue. Internally-generated metaphors’ information may take the form of sights, sounds, smells, feelings as well as in behavior patterns or illnesses. The magical thinking quality of the subcortex is what generates subcortical responses and somatic choices. If one can master the art of talking in metaphor and magical thinking, one can master the language of the subcortex. Then, it would be possible to negotiate with these primitive parts and strike a better bargain. Metaphors reveal the inner images and belief systems. Working with the patient to
clarify, confront or interpret them can result in excellent insight and room for transformation.

Responding to metaphor is a delicate and exacting exercise. It is essential to respond to the subcortical processes in their own context and with their own vocabulary. Kopp and others emphasize that effective metaphors closely mirror the context and vocabulary of the presenting situation. Effective hypnosis and Neurolinguistic Programming (NLP) require exacting rapport in words, action, tone and pace.

**Working with Metaphors**

A general plan to work with metaphor may include:

A. Acknowledge the metaphor

   Thank the unconscious process for being willing to communicate.

B. Elaborate on the metaphor.

   Ask for the sensory information included within and around the metaphor. This elaboration embellishes on and increases the reality of the metaphor for further involvement with the patient and the therapist.

C. Identify issues to proceed.

   Locate the sources of conflict, unmet needs, or positive intent within the metaphor.

D. Work within the context of the metaphor.

Processing a metaphor is a skill which requires sensitivity to subtle physiological shifts, flexibility of response and absolute respect for and trust in the unconscious process. Rapport with the subcortical processes is of primary importance throughout resolution of a metaphor. Its positive outcome is enhanced by a commitment to respect of the triune brain parts. Kopp and others have suggested that the unconscious is very adept at detecting disrespect or incongruence. To the extent that one respects one’s
own subcortical processes, to the same degree it is likely that one can come in to rapport with another’s unconscious processes.

One of the most effective techniques to work with metaphors is Neuro-Linguistic Programming’s (NLP) Six Step Reframe Process. Developed by Bandler and Grinder (1982, p.114) and Cameron-Bandler (1985, p.163), this process can be directed by another or by one’s self. It is a process used for a behavior over which an individual appears to have limited conscious control, that is a behavior (such as nailbiting) or thought (anxiety) that occurs “automatically”. This process can also be applied to symptoms and illnesses.

**NLP Six Step Reframe Process**

1) Identify the behavior or symptom to be changed.

2) Establish communication with the part of the person responsible for the symptom or behavior to be changed. Ask the part to give an involuntary signal, such sounds, images or feelings, indicating willingness to communicate; then ask for an alteration of this signal to indicate yes or no. For example, increased brightness of an image to indicate yes. A physical symptom can be effectively used as a signal.

3) Separate the behavior from its positive intent. Ask the part responsible for the behavior or symptom to make its positive intent available to conscious awareness. If this is not possible, the procedure can be modified and carried out at an unconscious level. Use the sequence of steps outlined below.

4) Access the creative part of the person and ask it to generate at least three other ways of meeting that positive intent.

5) Ask the part to be responsible for the symptoms to evaluate these options in terms of carrying out it positive intent in the context in which the behavior or symptom occurs.

6) Generate new options if these are not as effective or more effective than the symptom. Identify cues in the environment that let the responsible part
know what the new options are needed. Ask this part to be responsible for generating the new choices when they are needed, so that new options can work effortlessly and automatically. Check to make sure that no other part objects to the new options. If there are any, then recycle through steps 4-6. Resolve any conflicts or needs expressed and generate additional options to meet positive intent. This is done by manipulating content, using subjective responses for feedback until the metaphor is complete or satisfied as determined by the subjects feeling of completion.

“Bipolar Illness is a Balloon” (Kopp, 1995, p.28-31) illustrates how metaphors work in a context of therapeutic and perceived safety and thereby reveal multiple meanings available for professional and personal intervention.

Sue was a 26-year-old mother with bipolar disorder. With lithium, her moods had begun to stabilize. Sue felt relieved as a result of the diagnosis because she was finally medicated appropriately. The therapeutic goals were to increase Sue’s awareness and feeling of control over these symptoms and to identify strategies to help Sue deal with her mood swings. The focal problem of the metaphor therapy is to help Sue deal with her manic depressive symptoms which she regards as unpredictable. During treatment, Sue was looking at a poster of balloons in the therapist’s office as she talked about what it was like to finally be diagnosed with bipolar disorder.

Sue: Bipolar illness is like being a balloon. Sometimes the balloon is so full of air that it is about to burst, and some times there’s no air in the balloon at all, it’s limp and not pretty.

Therapist: What does it feel like to be the balloon?

S: It’s scary because when I wake up in the morning I don’t know if my balloon is going to be inflated or not, and not being stable feels terrible.

T: If you could change something about this balloon, how would you change it? Do you even want to change it?

S: Yes, of course I do. I guess I could tie the knot on the bottom of the balloon tighter, to make sure nothing leaks out.

T: So then you would be completely stable, with no movement of your thoughts in and out?
S: Well...I guess that’s not right, I should expect that my moods will be a little different every day...like normal people, right?

T: Do you feel that your thoughts should be able to roam freely in and out of the balloon?

S: I’d like to have greater control over this process and not just let my thoughts run away with themselves, like they seem to be doing all the time!

T: So how could you regulate that flow?

S: (Laughs) Maybe I could hire a guard to stand at the foot of the balloon and watch to see that the air in the balloon is flowing freely.

T: You said you would “hire” a guard?

S: Well, there’s always a price to pay.

T: Can you afford that price?

S: I can’t afford not to!

T: So what will the guard be doing?

S: I guess she’d stand there and either hold open the end or shut it tight, depending on what was happening.

T: So who is this guard anyway?

S: Um...I don’t know.

T: You said “she”...Is it a female?

S: Well, right now it’s the medication, but I guess when it comes down to it, the ultimate guard is really myself.

Sue became very quiet and introspective. When she spoke again she appeared very centered within herself. She seemed to be getting in touch with something deep inside of her.

Sue and the therapist sat in silence for a minute or so. Then Sue began talking about her mother, and about the abuse both she and her mother suffered at
the hands of her alcoholic father. The therapist asked her what made her bring up the subject of her mother immediately after talking about the balloon. Sue replied that when she was talking about a guard being at the opening of her balloon a picture popped into her head of her mother, acting like a “guard” when it came to dealing with her father, and trying to protect her from his abuse. Sue slowly wept.

Sue reported a reduction in the frequency of her mood swing. She also felt more in control of these symptoms whenever they did begin to occur.

This situation illustrates the multiple meanings associated with metaphoric images. Sue’s initial metaphoric meanings were that the “guard” was the medication, and then, ultimately, herself and finally her mother acting like a guard when dealing with her father. Regressing to childhood memories is common in metaphoric therapy as clients explore and transform their metaphoric images.

5. Subcortical systems are capable of non verbal communication: usually emotion and body sensations.

Comprehension of these signals may be interpreted and engaged in dialogue via use of metaphor. True physical health may require better relations between the subcortex and the cortex.

An example of working with own anxiety and communicating with it constructively follows:

As part of Desert Shield, the researcher’s son, a Marine, was sent to the Persian Gulf aboard a destroyer to provide safe passage for Kuwait vessels. The skirmishes and the increasing threat of war created the possibility that he would die. Anxiety and powerlessness prevailed and grew. To deal with the irrational aspects of my fears, a therapist friend helped me enter into a light trance where we accessed the part that felt powerless and anxious.

Speaking directly to this part we asked what it thought might keep my son safe. The accessed part stated that there would have to be a giant black widow spider that stood over and spread out over the ship that my son was in. We asked the part if there were more resources that would help make my son safe. It said “yes” and that sharks had to swim around and under the ship. Further questioning of the anxious part revealed that all the mothers of those sent to the Gulf plus all mothers native to the region should hold hands in protest of their sons being in harms way. An image of the mothers joining together, holding hands and
surrounding the area in a cooperative dance emerged. Further questioning the anxious part revealed that these images/realities would be enough to insure the safety my son and the ship he was on.

As my anxiety reduced, my breathing and heart rates stabilized. I was able to sleep, eat, and relax. These changes took place within the hour that it took to access the metaphor. I felt empowered and was able to function in a supportive way for my son. To this day, these changes do not make sense to the cortical brain but made perfect sense to my anxious, subconscious parts.

6. **Cortical systems have learned to ignore subcortical signals.**

How many times has one realized, after the fact, that their instincts about someone or instincts about choices were right the first time, but were denied by some “rational” choice. Insist that the cortex and the subcortex work together

7. **Stress and anxiety result if these signals go ignored for a long time.**

The literature review demonstrated that subcortical symptoms such as anxiety, emotional distress and fatigue result if there is a disconnect between the rational cortex and the survival/feeling based subcortex. It is conceivable that the more the cortex ignores the subcortex, there is an escalation of intrapersonal conflict which degenerates into a viscous cycle.

8. **Preserve ecology/integrate the resolved metaphor**

When subjective response is respected and honored, the danger of creating imbalance is minimized. All objections and resistance must be honored in meeting the needs of the metaphor. Any uncomfortable emotional responses to a metaphor or to a request for a metaphor must be resolved prior to resolving the metaphor itself.
In this example, notice the efforts made to be sure that all the objections or subcortically perceived fearful situations are dealt with to insure a well formed resolution which allows the client to make progress.

I was a counselor on the Chemical Dependency Unit at St. Luke’s Hospital. One day, just after arriving at work, I was asked to speak a patient, Don, who was detoxifying from multiple drug use and was very paranoid. At this juncture, he was also at high risk of seizure and suicide. I was told that he was throwing his belongs in a bag and was going to leave the hospital, despite the fact that the staff told him his life was at risk if he left. I was asked to talk with him as no one was able to change his mind about leaving.

I entered the room and watched him for a minute and talked to him in a low and slow tone of voice. I did not attempt to try to convince him that leaving was a bad idea. I asked him to describe as best he could the feelings he was feeling. I further asked him if he could put a form or picture to these feelings so I could better understand.

As he searched internally for a picture he began to go into a light trance. I paced him in voice tone to reinforce the trance. He described that he felt like a young boy in a corner shaking while his father loomed over him in threatening manner. I spoke to the boy and asked him what he might need to get out of the corner to be safe. The boy responded that was afraid of his father and that it would take someone with power to remove his father from threatening him and keep him from hurting him in the future. I asked the boy who or what might be able to do that for him. Soon, he said that Jesus came into the picture and removed his dad nonviolently and kept him from harming the boy. The boy was then able to come out of the corner and feel safe.

At this point Don changed dramatically. His demeanor looked peaceful. His nervousness and movements became tranquil and he conversed with me and others who later entered his room in a normal manner. His transformation created a stir upon the unit and I had to explain to my supervisor what I did. Needless to say they didn’t understand. Don quietly put away his belongings and became completely cooperative with the staff. Three months later he was still clean and sober and returned to thank me for “whatever it was that I did to him.”

9. **Insist that the cortex and subcortex work together.**

Just as team work is the byword for today’s management gurus, so it is for effective personal healing, insight and transformation. Working with all our parts is
essential to complete recovery or transformation. The ultimate goal is to restore the balance between the cortical and subcortical systems.

Summary

Sometimes the conscious and unconscious minds do not work together. Stress and anxiety may result. Working within the triune brain model holds promise to reduce anxiety using the language of metaphor to communicate with the rational and primitive and emotional parts of the brain. Even healing and self-empowerment may result. Safety, respect, and cooperation between the cortex and subcortex is essential and enhanced through the use of metaphor. Interventions may be more effective if the presuppositions about the working of the triune brain are used in working with clients. Finally, Neuro-Linguistic Programming’s (NLP’s) Six Step Reframe Process holds promise as a technique for assisting clients work with metaphors and anxiety within their own unconscious realities.
CHAPTER 5

SUMMARY AND RECOMMENDATIONS

Summary

The purpose of this study was to develop a theoretical model using the triune brain theory model to explain why metaphor is effective in reducing anxiety. This chapter summarizes this newly developed theoretical perspective and recommends areas for further research.

MacLean’s triune brain theory can be applied to a new theoretical perspective of how anxiety can be reduced though the use of metaphor. The brain has three basic patterns: primitive, emotional and rational. While having difficulty in communicating, these brains constitute one entity: the triune brain. Located in the subcortex, the emotional and primitive brains’ purpose is survival. The third brain, the cortex, contains the rational brain. Since the purpose of the unconscious emotional and primitive brains is survival, all behaviors should be seen to have positive intents. With dysfunctional behaviors, such as anxiety, communicating rational alternative behaviors is difficult, since the language of the cortex is different from the subcortex.

Research suggests that anxiety occurs when there is a dysfunctional response generated at the subcortical level. Generally this response is out of one’s conscious awareness but does show up not only as anxiety but perhaps as illness, tension, fear, and
stress. The triune brain model suggests that understanding and listening to subcortical responses may facilitate reduction in anxiety. The literature review has demonstrated that cognitive patterns of subcortical brain function are primitive and think magically. Their responses cannot be easily translated into logical, rational patterns of thought and consciousness. Metaphors seem to be the vehicle which connects them. Successful therapy implies respect of the subcortex’s needs and communicating with it by using metaphors.

**Recommendations**

Further research is needed on the triune brain theory’s connection to reducing anxiety through the use of metaphor. The result should be developing a training model of using the triune brain model to reduce anxiety through the use of metaphor.

While this research contains a literature review and personal experience supporting the conceptual generalizations deduced from MacLean’s, Kopp’s and others’ scientific studies, empirical research to formally unite these concepts into one model needs to be conducted. Ultimately, experimental validation of this or variant models’ effectiveness must be developed. As always, making these connections will be further confounded and complicated by including the human factor. There are always standardization problems, since patients vary psychodynamically. Finally, reproducing results will be difficult. Metaphor techniques more art than science, especially with the demographic, social and psychological variables individual patients add to the interaction.
The triune brain theory may have applications in other theories, as well. For example, the analytic, the emotional and the primitive brains may have some applications or even undergird the concepts of right and left brain theory. An analogy could be made that the left brain is rational, logical and historical similar to the cortex and the right brain is holistic and imagines similar to the right brain. Just as the triune brain components and the left/right brains each have their own strengths and weaknesses, when combined they unleash powerful creative and integrating forces. Edwards (1979) provides a layman’s explanation of knowing, sensing, and thinking in her book Drawing on the Right Side of the Brain. Further research should consider the connections between the left/right brain theory and MacLean’s triune brain.

Burns (1991) suggests additional connections between the triune brain theory and foundations of other psychological theories: Burns (1991) suggests that Freud’s id, ego, and super ego may correlate with the triune brain’s primitive, emotional and rational parts. Similarly, he suggests that Jung’s search for the roots of personality which considered myth, dreams, and religious symbols as manifestations of inner self may be explained with discussions of holons and metaphor. Burns (1991) also suggests that Erickson’s life development stages of trust, autonomy and identity can be explained by considering the triune brain functions relating to survival, emotional and cortical needs. Burns (1991) draws similarities between Maslow’s Hierarchy of Needs and the triune brain development. Maslow’s stages which include survival and safety; love and affection; belonging and esteem orientation may parallel the functions of the triune brain.
All of these theories and practices may be areas for further examination as to the role and
validity of the triune brain theory in assessing human development.

While MacLean’s concept of a triune brain is rooted in biology, the theory itself
is a metaphor which is relatively easy to understand. Analogous to the “dark side,” the
“unconscious,” the “id,” “the child within,” the concept of the triune brain helps make
irrational acts understandable as acts of survival. The mere act of acknowledging and
“listening to” subcortical responses may empower individuals who struggle with
responses that “don’t make sense.” Armed with the proposition that most behavior has a
positive intent (survival, affiliation, stability) as perceived subcortically, healing and
transformation may begin. By asking “what is the positive intent of this behavior?”
one’s options for change increase. Assuming that survival needs may include play, rest,
validation, elimination, protection, contact, food and purpose one can reflect on why one
behaves in a certain manner, or feels a certain way. Moreover, tailor-made therapeutic
alternatives may be suggested which are responsive to these subcortical needs.

For example, consciously meeting survival needs means noticing the body’s
signals such as hunger, fatigue, thirst. Acknowledging these and others can become the
bridge of awareness of other body signals which indicate other subcortical needs such as
touch, affection, expression. Getting in touch with gut feelings should be honored. A
renewed respect for the entire body and even health may be taken to a higher level.

Nevertheless, the twenty year resilience of the triune brain theory and the
increased use of metaphor in therapy deserve continued exploration as tools to prevent
and to reduce anxiety. With escalating medical costs, management’s call to cut costs via
reduced services and the increased demand for brief therapy, any training model which holds the promise for intrapersonal transformation based on internal communications deserves continued advocacy and training options. Workshops, scientific meetings, journals, video and audio tapes, and books would be examples of venues to provide additional exposure to educate health care professionals about the triune brain theory’s viability as a construct for understanding the cause of anxiety and, perhaps, additional physical diseases.

Further research into the triune brain theory should produce more systematic guidelines for both strategies and techniques to reduce anxiety. Most likely, a new model using the triune brain theory may become only one more tool which should be used in combination with other interventions such as hypnosis, medication, and psychotherapy.

With increased emphasis on diversity, working with self-generated metaphors provides the therapist with neutral ground on which the client can do their own therapy. Moreover, if safety is a prerequisite for learning, what better way to remain safe than in the confines of one’s own metaphor being guided by a skilled therapist? It is conceivable that a person could live a more integrated life by communicating with cortical and subcortical processes. If the non-verbal, physiological symptoms could be understood and talked to, one may learn to know thyself and heal thyself.


