

Fear Memory Integration

A Natural Health Alternative to Conventional Psychotherapies

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Abstract

Neurosis is not an illness in the medical sense. Rather, it is a chronic functional disorder of the autonomic nervous system. This disorder is a result of environmental conditioning, which begins in the womb. It is caused by the imprinting of, and the continuous retrieval and repression of, fear memories. This chronic imbalance effectively interferes with the nervous system's ability to correctly respond to present sensory input. Skewed interpersonal responses are a hallmark of neurosis.

The imbalance also precipitates neural toxicosis of the autonomic nervous system. The nervous system's attempts to detoxify itself results in ongoing exaggerated autonomic responses, which we experience as generalized and exaggerated expressions, such as rage, anxiety, and depression.

Neurosis can be healed by the intentioned retrieval of such memories in portions that are small enough to be absorbed by our higher thought processes. The continuous retrieval of portions of such memories reverses the condition of neural toxicosis, thereby relieving excessive mood swings. Neurotic tension, and the act out that is driven by this tension, is also decreased in direct proportion to the amount of fear memory that is processed.

All of the symptoms that the DSM catalogues and groups into separate and overlapping categories of mental illness, are actually each person's unique, learned responses to their automatic fear memory recall. The neurotic response is a symptom, which is a projection of the constantly occurring fear response onto a present situation.

Chapter 1

INTRODUCTION

The intention of this dissertation was to conduct theoretical research into the nature of neurosis: specifically, what is its cause and how can the cause be effectively addressed naturopathically.

The Diagnostic and Statistical Manual of Mental Disorders (DMS-IV) presently lists over 340 separate mental disorders, 120 more than its predecessor DSM-III-R.

Emotional disorders comprise a large portion of the most common psychiatric disorders. And many of these are related to the brain's fear system.

"According to the Public Health Service, about 50% of mental problems reported in the U.S. (other than those related to substance abuse) are accounted for by anxiety disorders, including phobias, panic attack, post-traumatic stress disorder, obsessive compulsive disorder, and generalized anxiety" (1).

Modern psychiatry has followed the lead of the medical profession in its search for disease processes as a cause of "mental illness". Currently an underdeveloped orbito-frontal lobe is being considered as a possible example of neurotic pathology (2). And altered levels of various neural transmitters are also correlated with different conditions, such as depression. This is assumed to have a genetic cause.

It has been demonstrated that poor attachment in the "mother-child dyad" leads to severe pruning of orbito-frontal neurons during the critical growth period. And it has being argued that this smaller than normal lobe may be a pathological process leading to neurosis in later life. One of the function of this area of the brain is impulse control. Lower impulse control translates into abnormal behavior. But the question must be asked: what impulses are being under controlled?

It has also been demonstrated that low levels of different brain neurotransmitters, such as serotonin, are associated with conditions such as major depression, etc. But, when the question is asked: why are these chemicals low?, faulty genetics is assumed. Again, a pathology is assumed to exists, which prevents the natural manufacture of serotonin in susceptible people. To date there is no evidence of such pathology.

Serotonin is a painkiller. The human body produces it, and 50 other such powerful painkillers naturally (3). Every second of our lives our body successfully regulates millions of chemical reactions. Why would it be inept with its production of serotonin? Since it is a painkiller, a more logical explanation of serotonin depletion in some people might be that those people are using up their normal supplies in a process of excessive pain management. What is the source of this pain? It is clear that both arguments fail to address causal processes.

A failure to produce definite pathology has led to the adoption of an atheoretical approach in the mental health field. That is, no assumptions are made about the cause of a particular disease. Indeed, the DSM-IV now defines a mental disorder as "a "clinically important *collection of symptoms* that causes an individual distress, disability, or the increased risk of suffering pain, disability, death, or the loss of freedom" (4). This allows the profession to assume a pathology, and to treat individuals accordingly, without actually having to prove it. It is very clear by its definition of mental disorder that conventional psychotherapy has contented itself with the treatment of symptoms. In this "allopathic" model, symptoms (behaviors) are being treated as the disease itself and behavioral and/or chemical treatments are designed to oppose or suppress those symptoms.

While these treatments can alleviate symptoms, any endeavor that treats the symptoms of a problem, rather than the cause of the problem itself, can never be curative. Everyone understands that cutting the leaves off of a weed does not prevent the leaves from growing back. The roots must be removed. In fact, pruning the leaves actually initiates a hardier growth of leaves. Within the domain of psychological treatment, this fact is reflected in the fact that chemical treatment must be periodically changed or increased to achieve the same result. And, in the case of behavioral treatment, support groups must be a lifelong endeavor. Or, alternate forms of dysfunctional behavior are substituted for the original. The human psyche is imbedded in natural processes. While the problem may appear solved as the symptoms abate, the underlying process, which generated the symptoms in the first place, continues to exist. Treatment of symptoms only, tends to encourage chronic conditions. Neurosis is a chronic condition.

The naturopathic community defines illness as an imbalance in the harmony of cellular processes, brought on by an underlying condition of toxicosis. They argue that the newborn child carries just about every dangerous microorganism that exists. If the germ theory of illness is correct, why is it that most children do not succumb to the effects of virulent diseases? Human beings have been born into this "dangerous" environment for hundreds of thousands of years, yet disease is a relatively isolated event. Why is it that we are not all sick all of the time? Naturopaths have always believed that if the human body is getting what it needs to maintain its healthy functioning, that functioning, fine-tuned over millions of years of evolution, will not allow the effects of dangerous substances to accumulate in the body, to the extent needed to support disease. *It is the presence of inadequate nutrition, coupled with inadequate cellular detoxification, which creates the environment of disease.*

The nature of the cellular basis of life has been known for over 300 years. No one questions the veracity of this knowledge. Yet, for some reason, it does not inform the practice of psychotherapy.

Each and every living entity, emerges out of the energy structure of its environment as a single cell, which rapidly divides into trillions of cells, all of which are literally afloat in a sea of nutrient rich water. A vast ocean exists around each and every one of the cells that work together in harmony. The harmonious association of cells is the individual. This

ocean is constantly flowing onto the membranes of these trillions of cells, driven by the beating heart. Constant flows of arterial nutrients and water flow onto the membranes, are moved through the membranes, and are accepted by each cell, to be used in its cellular processes. As the nutrients are utilized, toxic byproducts are generated. And these byproducts are moved back toward the exterior of the cells, moved back out onto the membranes, and are swept away by venous currents. These currents flow onto the membranes of our organs of detoxification, move through these membranes, and are deposited into the environment. The detoxification processes are so critical to the smooth functioning of cellular processes that an estimated 80 percent of our daily energy production is utilized in its accomplishment .(5)

On the cellular level, then, the individual is dependent upon the environment into which it emerges for all of the things that are needed for the proper unfolding of the genetic structure. And, *the nature of that environment conditions the nature of the expression of that genetic code*. The individual develops, inheriting the phenomenological or felt sense of "being healthy" as a consequence of the smooth running of this synergistic relationship. In naturopathic thought, "health" and "the smooth integration of object and environment" are synonymous terms.

It is clear, then, that the cell and its environment - the individual and its environment - cannot be spoken of separately. Rather, they are to be thought of as interacting aspects of a single, indivisible process. The ancient Chinese concept of yin/yang most accurately conceptualizes this relationship.

If its environment is fully one-half of the individual's makeup, why is it that there is such a resistance toward examining the quality of the environment as a possible source of the generation of disease states?

Medical science has been dominated for over 70 years by the theory that people get sick because they are the victims of disease entities. Baker suggests that "people get sick because of a disruption of the dynamic balance that exists between themselves and their environment" (6).

Some of the ideas of psychologist Arthur Janov were examined. Thirty-five years ago he developed a naturopathic psychological theory, which postulated an underlying, environmental cause for neurosis. He claimed to offer, not a treatment of symptoms, but a cure for neurosis. His ideas were examined in the light of recent research, some of which appeared to both mirror and substantiate his theories, without making reference to his work.

It is time to re-examine a naturopathic model of neurosis, which offers the hope of healing, rather than just a lifelong management of chronic behavioral symptoms.

Janov's work is called Primal Therapy. Dr. Janov has been conducting his therapy for over thirty-five years. And a large body of data has been generated, which seems to substantiate, in concrete and scientifically demonstrable ways, the efficacy of his

treatment program. Unlike his peers in the psychological community, Janov has postulated an etiology for neurosis. And his treatment purports to treat its cause, rather than its symptoms. Janov's concept of neurosis presumes the operation of concrete *neuro-biological processes*. Since the current psychological community has demanded that the study of mental illness be based upon observable phenomena and scientifically valid data, his ideas deserve close scrutiny by that community. This has not happened.

The term "neurosis" was used throughout this work. And its meaning was restricted to *all functional emotional disorders having no apparent histological cause*. This definition rules out all organic disorders. But those disorders that are presently associated with a presumed chemical imbalance of the brain were included. This category was included because of Janov's unique theories of the etiology of such chemical imbalances (i.e., his belief that chemical imbalances are also symptoms).

Evidence, which supports his theories was presented from current research in the areas of fear memory formation and retrieval and post-traumatic stress disorder.

Janov's theories postulate the existence of very unique and primitive body memories. Therefore, a general theory of memory was introduced, which helps to clarify this concept.

In order to understand Janov's concepts one needs to have a basic understanding of how important the quality of the developing child's environment is to his psycho-social development. A deep ecological understanding of human development is needed. An example of such a theory of development was presented .

A theory was presented, which describes a neurological basis for Janov's theories. This theory postulates that chronic fear memory retrieval and repression causes a process of endogenous toxification of the nervous system. That is, the individual, through its environmentally conditioned behavior, actively participates in the toxification of its nervous systems.

Once it is understood that chronic fear memory retrieval and repression, and its subsequent neural toxification, is the cause of neurosis, the question can be asked: how can this process be reversed? A naturopathic etiology of neurosis was presented, along with some basic guidelines for the naturopathic reversal of the neurotic process.

Primal Therapy was then placed within the operational framework of naturopathic thought. And a discussion of its basic requirements as a naturopathic therapy was presented.

Finally, the author used his doctoral practicum to conduct a twelve week longitudinal study of three men, who volunteered to participate in a program of primal facilitation. The purpose of the study was to test Janov's claim that objectively verifiable and normalizing changes are effected by the process of primal therapy. The results of this study were presented in the Appendix.

ENDNOTES
CHAPTER # 1

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Chapter 2

LITERATURE REVIEW

The Imprint

Arthur Janov, PhD was trained in the Freudian tradition of psychotherapy. The Freudians believed that early childhood trauma somehow created neurosis in later life. In his early years, Freud believed that his patient's reports of childhood abuse were description of fact. But, for various reasons, he later came to feel that the reports were a result of the tendency of the child to fantasize. He then created intellectual constructs that could help to explain why the child would fantasize about childhood abuse. His concepts of the Oedipus and Electra complexes were two such intellectual constructs. This decision on Freud's part relegated neurotic behavior to a realm of *invisible psychic forces* that would, eventually, lead to the rejection of his definition of neurosis in the 1980's. As early as the publication of DSM III a decision had been made to drop the use of the term "neurosis". At this time there was a conscious effort to make psychiatric diagnoses "based on observable phenomena (e.g. behavior) and scientifically valid data"(1). Since neurosis, as the Freudians used the term, presumed the operation of *invisible psychic processes*, it had to be dropped.

Like the early Freud, Janov believed that his clients' reports of childhood trauma were real. But, if they were real, how could this early trauma continue to effect the person as an adult? How could the effects of the child's negative experiences be carried forward through the years? Unlike Freud, who developed intellectual constructs as an explanation, Janov began looking for scientifically verifiable processes. *What was the neuro-biological mechanism of neurosis?*

Janov theorized the existence of a "special category of memory" which he called Imprints.

"Imprints, as I use the term, are repressed memories which find their way into the biological system and produce distorted functions. These distortions can be both organic and psychological. The formation of imprints takes place during early childhood development and falls off critically after about the age of ten." (2)

Once established, he says, these special body memories continually interfere with the individual's present day behavior throughout life. They intrude into daily activities. One is continually reacting to these intrusive, imprinted memories, rather than reacting directly to events in the present. In this way, behavior in the present appears distorted. As Janov states, (in the neurotic act-out) the feeling that is being reacted to is correct, but the context of the feeling is wrong.

It is Janov's belief that the child can start recording these "body memories" as early as 26 weeks after conception, when the electrical activity of the cerebral cortex is shown to be well developed (3).

Memory

Memory is nature's way of allowing the organism to project its experiences forward in time. Henderson (4) has speculated that the human nervous system has two very distinct ways of doing this. In utero, and for the first 6 years of life, a very primitive memory system is functional. This memory system encodes experience in terms of *pleasant and painful sensorimotor sensations*. *The individual automatically reacts to these sensations.*

To recall such a memory is to re-experience the physical sensations and reflexive bodily movements that one experienced during the original, memory-forming event. This kind of memory is referred to as dispositional or implicit memory.

Henderson says that one's entire adult emotional life, the ability to spontaneously experience pleasant and painful feelings and emotions, is built upon the contents of these sensorimotor memories. The author of this paper has referred to this early memory system as either the *amygdalic memory system* or the *primal memory system*.

Henderson goes on to theorize that this memory system ceases its function upon the maturation of a second, more sophisticated memory system. This transition from primitive to sophisticated memory system occurs during the 5th or 6th year, when the myelinization of the hippocampal structure of the brain is complete. Thereafter, all memories are encoded as feeling-neutral, visual representations. Furthermore, these more sophisticated memories automatically gain access to the logic functions of the left hemisphere, once the corpus callosum is fully myelinated. This occurs at around age 10. The author of this paper has referred to this mature memory system as the *hippocampal memory system*. If a hippocampal memory is recalled, and it does bring up a feeling or sensation, it is because it is connected to one or more of these earlier kinds of memories (they both share a common feeling). Henderson thinks that, once the hippocampal memory system is fully functional, the amygdalic memory system becomes an artifact, functioning only as a repository for very early, sensorimotor/emotional memories.

The author's studies led him to conclude that the amygdalic memory system continues to be active in memory formation after the maturation of the hippocampal memory system, but only as a protective device: one which functions to guard developing self-awareness against the ongoing dis-integrative potential of traumatic life experiences.

Definition: a *primal memory* is any memory that has been encoded by the amygdalic memory system. That is, the memory is made by the first (or primal) memory system. If it is encoded prior to the maturation of the hippocampal system it may be either a pleasant memory or a fear memory (because this is the only means of encoding experience). If it is formed after the maturation of the hippocampal system, it will be (exclusively) a fear memory.

Memory Storage

One theory of how memory is recorded states that all incoming information to the nervous system is electrical in nature. So-called short term memory may be temporarily encoded on this level (as a certain electrical configuration within the brain). Then

"...somehow the electrical impulses within the nerve circuitry stimulate the DNA inside each nerve cell. As a result of this stimulus DNA sends RNA out into the cell with a message to construct specific protein memory molecules, usually on the cell's surface. This newly formed protein in some way stores a long term memory that is subject to recall." (5)

Recent studies in fear memory retrieval reinforce this theory.

In addition to being able to store experience, the nervous system operates such that these experiences can be associated and generalized. Because of this functional ability, one is able to automatically draw upon one's previous experiences, each time one is presented with a present day challenge. That is, *whenever a present event feels like a past pleasant or painful situation, a pleasure or fear response is automatically generated.* These automatic responses enable one to have the phenomenological experience of an emotional life. It also has survival value. The avoidance of dangerous experience does not have to be learned over and over again. That is, one learns how to automatically react in fear to any present event, which feels like the original fear provoking event. For example, if one is bitten by a snake, one may automatically react with a fear response later in life, if a coiled rope, lying on the ground is suddenly sighted. The original experience has been associated with a certain feeling and the original response gets generalized onto same-feeling events in the present.

This natural brain capability (memory storage and automatic recall) is a double-edged sword. Whenever pleasant primal memories are triggered and recalled one automatically (re)-experience the sensations and emotions that are associated with love, nurture, empathy, etc. Our "human" qualities are experienced. Whenever painful primal memories are triggered and recalled, one automatically (re)-experience painful sensations and emotions that are associated with fear, hatred, envy, selfishness, anger, etc.

The automatic (re)-experiencing of fear related primal memories is the necessary condition of neurosis. And the present day experience, which triggers those memories, is the sufficient condition.

Joseph LeDoux's research supports Henderson's speculations about the existence of multiple memory systems. In his discussion of the differences between implicit and explicit memory he says:

"The conscious memory of the past experience and the physiological responses elicited thus reflect the operation of two separate memory systems that operate in parallel. Only by taking these systems apart in the brain have neuroscientists been

able to figure out that these are different kinds of memory rather than one memory with multiple forms of expression. The work of our lab has been focused on the neural system underlying the formation of implicit emotional memories.” (6)

Amygdalic memories are LeDoux's implicit memories. And his explicit memories are hippocampal or declarative memories.

A discussion of Janov's *Imprints* is frustrated by the fact that most people understand memory only in terms of conceptual or declarative memories. It is generally understood that, to remember something, is to hold a visual representation up before the mind's eye. One tends not to think of a recalled, non-conceptual, sensory experience as a memory. Therefore, it is helpful to think of pleasant and painful primal memories as *conditioned pleasure and fear responses*.

Human beings have had to evolve in a world in which painful, disruptive events threaten existence. This reality is reflected in the development of mechanisms of pain repression very early on in evolution. In order for human evolution to progress it is clear that present-occurring perception or awareness of pain must have had to be dampened, yet remembered, so that future painful events could be avoided. This kind of capability would grant a survival advantage. This reactive response would have had to evolve very early on in the development of life on earth (otherwise, how could living systems have overcome the dis-integrative environmental elements in the very early stages of development). And, if McLean's (7) model of evolutionary brain development is correct, in mammals this function would have to be located way down in the primitive neural structure of the brain. This type of brain function would necessarily have to be linked to sensations or feeling states, rather than to rational thought processes. And, in fact, present life experience is still initially processed through early brain structure (8).

When one contemplates the many so-called reflex functions such as the removal of a finger from a hot object, or blinking, whenever an object approaches the eye, it is clear that these things happen without the participation of conscious awareness. But it is also clear that some form of consciousness must exist below the level of awareness, which automatically protects the body from cellular damage. Arthur Janov has labeled this function: *first line consciousness*.

Similarly, and for the very same logical reasons, the evolution of human self-awareness must have required the simultaneous evolution of a protective mechanism, which guarded against its dis-integration.

As a species, and in each individual's life span, the sense of self must be slowly constructed out of life experience. Modern biological theory acknowledges that the classical nature-versus-nurture theory of human development is naive. It is now believed that genetic structure unfolds and is, subsequently, modified by its interaction with the quality of the environment with which it comes in contact (9). Genetically programmed nerve cell sprouting and pruning present a good example of this reality.

It is known that nature adapts existing structures to the introduction of novel survival challenges. An example of this would be the foot. The foot did not evolve for the purpose of movement on land. Rather, an existing structure, the fin, was used in a novel way, to permit land movement. The fin's continual use in this way brought the foot into existence.

Did nature utilize an existing brain structure in a novel way, to protect the newly emerging function of self-awareness from dis-integration? The author thinks that it did. That structure is the primitive amygdalic memory system. And this adaptation, while it assisted the evolution of self-awareness, simultaneously precipitated the necessary condition for the dissociative function, as well as the condition of fear memory intrusion that is associated with post-traumatic stress disorder.

Van der Kolk (10) suggests that the amygdalic memory system may become activated in the case of traumatic experiences. This memory system becomes activated by highly charged emotional experiences, *which threaten to be disruptive of higher order human consciousness*. And, simultaneously, the experience is prevented from being recorded in hippocampal memory by the presence of high levels of cortisol, which are a result of the highly stressful nature of the traumatic experience. Van der Kolk feels that this process is the essence of dissociation.

By simultaneously shunting traumatic experience into amygdalic memory, while disabling hippocampal memory formation, the sensorimotor and emotional components of traumatic experience are "imprinted", while higher order consciousness is preserved. *In effect, the body absorbs the "blows" of traumatic experience in order to preserve the integrity of the individual's ability to be self-aware.*

For example, a woman might have no conceptual memory of having been raped (think of what it would be like to wake up every morning with a vivid conceptual memory of a rape experience). Yet she cannot stand being intimate with men in the present because a man's touch "feels" frightening or uncomfortable. That is, it triggers a fear response (a painful primal memory), rather than a pleasure response. Her dissociated body memory has been generalized onto all men.

The activation of the amygdalic memory system, in the event of traumatic experience, is an example of nature's adaptation of existing structure (the amygdalic memory system) to novel experience (the evolution of the ability to be self-aware).

There is, however, a problem inherent in this adaptation. The use of amygdalic memory to record traumatic experience represents an encapsulating event. That is, this process effectively prevents the integration of the memory of the traumatic experience into the whole psychic structure.

The term 'psychic structure' is herein meant to describe the felt sense of having an enduring existence (sense of past, present, and future), which is made possible by the existence of the left hemisphere, frontal area of the brain, which analyzes an experience

and associates it with other knowledge within a time matrix. This activity, coupled with hippocampal or declarative memory, (which can be consciously recalled and reflected upon) gives the individual the sense of having a personal history.

On the cellular level a process called phagocytosis has evolved as a defense mechanism. For example, when an invading bacterium is recognized by the body as being capable of being disintegrative of cellular integrity, a white blood cell moves to the site, engulfs the harmful material within its body by trapping it in a section of the cell's plasma membrane and then pinching that membrane off inside of the cell. The bacterium is thus encapsulated from the rest of the body cells. Later, the bacterium is fused with a lysosome and is destroyed. Ultimately, the destroyed bacterium is removed from the body via the organs of elimination.

Likewise, *dissociation, the automatic shunting of a traumatic experience into the amygdalic or primal memory system, and its simultaneous blockage from high order brain function and hippocampal memory formation can be seen as the first step in a detoxification process: the neuro-cellular identification of a dis-integrative event and its encapsulation.*

To recall a primal memory is to (re)-experience the body sensations that were present during the original painful experience. It is important to understand that retrieved primal memories directly stimulate the functioning of the autonomic nervous system, just as the original memory-forming event stimulated this system. That is, *the autonomic nervous system cannot differentiate between a present threat (physical) and a recalled threat (psychological). This is consistent with mind/body identity theory.* If the original fear experience produced a rapid heartbeat, for example, *the recollected memory is rapid heartbeat.* If the original experience produced shortness of breath, *the recollected memory is shortness of breath,* etc. This is evident in the situation in which one is called upon to speak in front of an audience and suddenly experiences heart palpitations and shortness of breath. If one asks oneself: what is this audience doing to cause the heart to beat faster? What is it doing to cause the breath to shorten?, it becomes obvious that the audience cannot be causing this autonomic response. Rather, the response is being self-generated. The self-generated response is a recalled primal memory of an earlier experience, which had the same feeling as the present experience. Something about the *feeling* of the present experience is triggering the recollection of a primal memory.

If it is true that constant imprint intrusion is the cause of neurosis and that the intrusion has a direct effect upon the autonomic nervous system, then the healing of neurosis should be objectively demonstrable by the direct measurement in changes of autonomic functioning prior to and after therapy. Janov has demonstrated this, as well as changes in brain function. A discussion of his evidence will occur later in this paper.

Memory Retrieval

In order for information to be saved in a computer, it must be assigned a name, so that it can be retrieved (distinguished from other information) at a later date. The "save as" function is used to accomplish this.

Whenever it becomes necessary to retrieve information, the name is entered into the computer. This brings up the information that exists in that named file. This information is, thus, made available for consideration.

The human memory system seems to work in a similar way, except that there is no search name. There is, instead, a search feeling. Because it is initially processed through primitive brain structure, memories of human experience are labeled by feelings. Each past experience had a particular feeling attached to it. And when the brain encoded this experience it used this feeling, just as a computer uses a "search name". Each present day experience, likewise, has a certain feeling to it. When the present feeling is experienced, it is like entering a search name into a computer. That is, this feeling automatically brings up memories, which have been tagged with this similar feeling. In this way *the present experience automatically accesses relevant past experience*. Note the difference in human memory retrieval: a feeling is a more general entity than is a word. With a computer there can be only one file assigned to one name. In the brain, multiple memories can be assigned to a feeling. This creates the possibility for what Janov has termed a "chain of pain". This chain is a network of fear memories that share a common feeling. The human brain associates memories with one another, based upon shared, common feelings.

Additionally, LeDoux suggests that memories of our experiences are fixed by the intensity of the feeling associated with the experience (11). That is, the more emotionally charged an experience is, the more likely it will be encoded as a fear memory. This is because strong emotions usually signify that something needs to be attended to (for survival).

His research demonstrates that memory is malleable when it is first encoded and also *during each recollection*.

" 'New' memories are initially labile and sensitive to disruption before being consolidated into stable long-term memories. Much evidence indicates that this consolidation involves the synthesis of new proteins in neurons. The lateral and basal nuclei of the amygdala (LBA) are believed to be a site of memory storage in fear learning. Infusion of the protein synthesis inhibitor anisomycin into the LBA shortly after training prevents consolidation of fear memories. Here we show that consolidated fear memories, when reactivated during retrieval, return to a labile state in which infusion of anisomycin shortly after memory reactivation produces amnesia on later tests, regardless of whether reactivation was performed 1 or 14 days after conditioning. The same treatment of anisomycin, in the absence of memory reactivation left memory intact. Consistent with a time-limited role for

protein synthesis production in consolidation, delay of the infusion until six hours after memory reactivation produced no amnesia. Our data show that consolidated fear memories, when reactivated, return to a labile state that requires de novo protein synthesis for reconsolidation. These findings are not predicted by traditional theories of memory consolidation." (12)

So, in order for a memory to be recollected, the protein molecules on which that memory is encoded must first be disassembled. Afterward, new molecules must be made, resulting in the re-storage of the recalled memory onto the new molecule chain. LeDoux's experiments suggest that the process of protein reassembly takes six hours. Because the newly "disembodied" memory is labile (during its recollection), if new information is added during this six hour period, this new information may become part of the restored memory, thereby making a slightly different memory than had existed prior to the recollection. This process of memory making goes to the very heart of the false memory debate. *It also is critically important to the emotional healing process. It explains why re-patterning, re-parenting, re-birthing, etc. can have therapeutic value.*

Just because someone has a memory of abuse and really believes that it happened, can this memory be trusted? The current memory formation and retrieval research suggests that there is room for doubt, *if that memory has been repeatedly recalled and manipulated.* The author believes that the false memory argument is confused. The confusion exists because of a failure to acknowledge the essential difference between dispositional (fear) memories and contextual memories. While both sets of memories are encoded and recalled, they get recalled *differently.*

It must be remembered that a fear memory is an encapsulated memory. It is encapsulated in the sense that it has not been integrated within the larger set of contextual memories. One cannot construct a story about fear memories. They are something that just happen, over and over. They are a conditioned response. And they happen as body reactions, alterations in the autonomic nervous system.

Because they are separated from the contextual memory making process, they are separated from the sensory data (of current experience) that is continually informing that system. Additionally, they do not have access to the logic structures of the brain.

A recalled contextual memory is bombarded with new data within a time matrix. A recalled fear memory is not.

And yet, LeDeux's work demonstrates that fear memory is also labile after it is recalled. This presents the *possibility* that it might become modified. Indeed, his experiments show that fear memory can be eradicated chemically in animals upon its reactivation.

A recalled primal memory is always true, in the sense that it is a re-representation of the sensations and emotions that the person experienced during the original trauma. It is a direct, autonomic response and, hence, cannot be false. The conceptualization that it was mom or dad that did the abusing will be accurate to the extent that the hippocampal

memory making process was able to create a declarative memory of the event while it was happening. Because the extent of dissociation is dependent upon the amount of stress involved, as well as the amount of control that the abused individual senses that he has while being traumatized, it is possible that the primal memory may be completely devoid of conceptual memory or it may be linked to fragments of conceptual memory. *These variables make it possible for traumatic memories to exist on a continuum* (from no visual representation to some visual representation). That is, the abused may recollect only painful sensations and body reactions, or he may have actual fragments of conceptual memories of it being mom or dad. This is obviously very error-fraught territory.

One task of a defense attorney in a case in which abuse is being alleged would, thus, be the establishment of whether or not the accuser's memories may have been implanted at a later date.

Janov believes that the imprint is an extremely durable memory. In fact, he believes that, once the primal memory is formed, it exists forever in the body in its original, pristine state. No matter how many times that it is recalled, the imprint gets re-stored in its original, unmodified state. Only *primalling* the memory is able to modify the structure of an imprint. He calls this process "feeling the feeling". A discussion of the term "primalling" will be presented later in this paper.

What is it like to relive a traumatic experience? Since it is primarily a visual medium, motion pictures have given a false impression of what it is like to relive a traumatic event. In movies of this sort there is always an epiphany in which a coherent declarative memory of the traumatic experience of the past finally rises, full-blown, into the consciousness of the traumatized person. The traumatic event is visualized and, once this happens, the event is remembered and resolved. This process is clearly depicted in the movie Prince of Tides. This presupposes a model of repression in which the mind actually records a coherent explicit memory of the traumatic event and then throws up a screen, which blocks these memories from reaching conscious awareness. Lower the screen and the memory emerges.

If Bessell van der Kolk is correct about the mechanism of dissociation of traumatic events, the reliving of a traumatic event would be substantially different than this cinematic portrayal. The author's own traumatic memory retrieval experiences confirm this difference.

According to van der Kolk, the declarative memory making process is disabled during a traumatic experience. That is, *the brain is incapable of making a coherent declarative memory during a traumatizing event*. Or, to the extent that it does, it is fragmented, containing bits and pieces of what happened prior to, during, or after the event. What does happen is that the emotional and sensorimotor component of the experience is encoded in primal memory. Since no coherent declarative memory is encoded in the first place, there can obviously be no coherent declarative recollection of the event, as is depicted in the movies. What is subject to recall are the somatic elements (the

sensorimotor reactions) that occurred originally, during the trauma. And, if fragmentary elements of declarative memory exist, they too are subject to recall. The emergence of fragments of declarative memories of a traumatic event have been referred to as flashbulb memories. A piece of visualization emerges abruptly " out of the darkness", as though someone took a picture with a flash attachment.

This is precisely what happened to the author during the course of his personal experience with primal therapy and the retrieval of a central traumatic event.

It is Van der Kolk's observation that

“memories of trauma tend to, at least initially, be predominantly experienced as fragments of the sensory components of the event: as visual images, olfactory , auditory, or kinesthetic sensations, or intense waves of feelings (which patients usually claim to be representations of elements of the original traumatic event). What is intriguing is that patients consistently claim that their perceptions are exact representations of sensations at the time of the trauma.” (13) And:

“The highly elevated physiological responses that accompany the recall of traumatic experiences that happened years, and sometimes decades before, illustrate the intensity and timelessness with which traumatic memories continue to affect current experience.” (14)

Janov has this to say about the retrieval of an imprint or primal memory:

"The human system has the remarkable innate capacity to return to the exact body and brain state originally present in the trauma, not to think about it or imagine it, but to replicate it exactly."(15)

LeDoux has demonstrated that the human memory system encodes normal memories and traumatic memories in very different ways. Van der Kolk has this to say about the difference:

"We have known since the final decades of the 19th century that extreme fear, terror, and helplessness during a traumatic event can overwhelm people's biological and psychological adaptive mechanisms. They are unable to assimilate and integrate their experience. Their "implicit" (sensory and emotional) memories of the trauma are "dissociated" and return not as ordinary memories of what happened, but as intense emotional reactions, nightmares, horrifying images, aggressive behavior, physical pain, and bodily states. The mental imprints of the trauma return." (16)

It is the author's conclusion that Janov's Imprints are actually implicit fear memories of the kind that van der Kolk is describing. The cluster of symptoms, which are exhibited by people who have suffered traumatic experience are a compilation of that person's unique reaction to the autonomic response, which is triggered by the fear memory

intrusion. And the various symptom clusters are referred to, collectively, as *Post Traumatic Stress Disorder*.

Van der Kolk says that:

“the core pathology of PTSD is that certain sensations or emotions related to traumatic experiences are dissociated, keep returning in unbidden ways, and do not fade with time. It is normal to distort one’s memories over the years, but people with PTSD seem unable to put an event behind them or to minimize its impact.”(17) And:

“Traumatized people rarely realize that their intense feelings and reactions are based on past experience. They blame their present surroundings for the way they feel and thereby rationalize their feelings. The almost infinite capacity to rationalize in this way keeps them from having to confront the helplessness and horror of their past; they are protected from becoming aware of the true meaning of the messages they receive from the brain areas that specialize in self-preservation and detection of danger.” (18)

Janov states that neurotic behavior is caused by the constant intrusion of the imprint into everyday experiences. The author equates Janov’s *imprints* with *fear memories*. Therefore, if the author is correct in his assumption, it can be concluded that what Janov was describing as neurosis 30 years ago is identical to what is now being termed PTSD. In other words, neurosis IS post traumatic stress disorder.

If this is true, it can now be understood why Janov adamantly insists that conventional “talk therapies” are not able to cure neurosis.

Again, van der Kolk (describing fear memories) says:

“These emotionally labeled sensations are believed to be indelible or at least extraordinarily difficult to extinguish. Once the amygdala is programmed to remember particular sounds, smells, and bodily sensations as dangerous, a person is likely always to respond to these stimuli as a trigger for fight or flight reactions.”(19)

Conventional psychotherapy relies on top-down processing, which inhibits rather than integrates unpleasant sensations and emotions.

“In traditional insight-oriented psychotherapy, people can grasp that certain emotional or somatic reactions belong to the past and are irrelevant to their lives today. This may help them override automatic physiological responses to traumatic reminders, although it will not abolish them. It provides a deeper understanding of why they feel the way they do, but insight of this nature is unlikely to be capable of reconfiguring the overactive alarm systems of the brain.”(20)

In other words, understanding why one is acting neurotically, cannot remove the ability to recall and to reenact painful emotional memories. Or, as Janov says: *you cannot reason away the pain of your imprint*. It is now understood that the rational thought process is incapable of reconfiguring the brain's alarm system.

Hence, many things can be done with the rational mind, which are capable of modifying behavior (providing resistance to the flow of primal memory), but the imprinted primal memory remains, still loaded with the energy of the original experience, still waiting to emerge. Like water, it will find the path of least resistance and then it will flow forth once again. An example of this is seen every time someone gives up cigarettes, only to begin overeating and gaining weight. Smoking may be a learned repetitive behavior, which helps to keep painful primal memories from intruding into awareness. When one decides to stop smoking, excessive eating accomplishes the same thing!

A neuro-biological reality mitigates against a top down approach to the treatment of neurosis:

“Neuroanatomists have shown that the pathways that connect the emotional processing system of fear, the amygdala, with the thinking brain, the neocortex are not symmetrical - the connections from the cortex to the amygdala are considerably weaker than those from the amygdala to the cortex. This may explain why, once an emotion is aroused, it is so hard for us to turn it off at will. The asymmetry of these connections may also help us understand why psychotherapy is often such a difficult and prolonged process - it relies on imperfect channels of communication between brain systems involved in cognition and emotion.” (21)

It follows, then, that what is required for the healing of neurosis, is the type of facilitation that helps to reconfigure the overactive alarm system of the brain.

Janov claims that the therapeutic techniques of Primal Therapy cure neurosis. His techniques work to eliminate many of the symptoms of neurosis by addressing the cause of the symptoms: the Imprint. But, unfortunately, he does not make these techniques known to the general public. Today he still operates his own therapy center and teaches his techniques to his students. And he steadfastly refuses to acknowledge anyone else's work (that is, anyone who was not trained by him) as being useful in the eradication of neurosis. He has written many books over a period of thirty years and is continuing to author more. Yet, a search for references to Janov's work within the psychotherapeutic community reveals nothing. This community has overtly ignored 30 years of his research. Yet, it is apparent (from the study of van der Kolk's works, for example) that this same community has been absorbing his ideas and advancing them within the emerging field of trauma therapy.

Memory and Stress

It has been known for a long time that stress interferes with the proper processing of declarative memory. When presented with a stressful situation, the activation of the hypothalamic-pituitary-adrenal (HPA) axis stimulates the adrenal glands to manufacture excess cortisol, a catabolic hormone, which, in effect, causes the augmented breakdown of body tissue in order to release more energy for the defensive needs of a threatened body. When excess cortisol infuses neural tissue, it interferes with the conceptual memory and decision-making process. Additionally, blood flow is restricted in the frontal parts of the brain and is shunted to brainstem (survival) structures.

According to van der Kolk, it takes a special set of circumstances to disable the hippocampal memory system. *A situation must not only be highly stressful and emotionally charged, but the person enduring the trauma must feel helpless to change the outcome of the traumatic event.*

Janov had this to say over thirty years ago: "Overload" is not simply a matter of how traumatic the stimulus is; on an internal level it must be a stimulus for which "there is no option for escape." (22) Hence, both men believe that a shutdown occurs when there is a painful & uncontrollable sensory overload. It is an automatic brain process; a defense.

So, when these two conditions occur together within a person's experience, the hippocampal system "blinks". That is, a record of the physical and emotional reaction to this traumatic event is encoded, but its visual representation within the hippocampal memory system is not. It is important to understand that the phrases "highly stressful" and "helpless to change the outcome", the two presumed variables of fear memory processing, exist on a continuum. They may be conditioned by an individual's genetic disposition, as well as age factors. The extent of the visual representation is dependent upon the cortisol level, which is dependent upon the level of stress and the level of helplessness that the person feels. The person thereby automatically dissociates him/herself from the fearful event on a continuum, which extends from having some declarative memory of the event, to having none at all. In this way the person can endure and survive the traumatic event in which he/she is helpless to change the outcome: an automatic fear response (memory) is created as a survival mechanism for future reference, and the integrity of the self-awareness function is preserved.

“Dissociation [of a traumatic experience] refers to a compartmentalization of experience: elements of the experience are not integrated into a unitary whole, but are stored in memory as isolated fragments and stored as sensory perceptions, affective states or as behavioral reenactments (Nemiah, 1998, van der Kolk & van der Hart, 1989,1991). While dissociation may temporarily serve an adaptive function, in the long range, lack of integration of traumatic memories seems to be the critical element that leads to the development of the complex behavioral change that we call Post traumatic Stress Disorder. Intense arousal seems to interfere with proper information processing and the storage of information into narrative (explicit) memory.” (23)

The implication that can be derived from the above statement is that an integration of these traumatic memories would heal PTSD. Janov's use of the term "primal" is a description of a therapeutic process whereby traumatic memories can be integrated into the whole psychic structure.

The Continuum of PTSD

Bessel van der Kolk's research with PTSD involves cases of dramatic incidents of child abuse, rape, or terror (of the type that soldiers experience in combat). The impression one gets is that traumatic memory making is connected to an on/off switch and that an experience must reach a critical level in order to be dissociated. The author suggests that fear memory making is connected to a rheostat. That is, there is a gradient of dissociation involved in all experiences that are capable of disrupting the self-awareness function. If it is the case that the process of dissociation is distributed on a continuum, does this not imply that there can be different levels of PTSD? The author believes that neurosis exists on a continuum, which is directly related to the level of stress of the traumatic event and to the level of control that the person perceived that he/she had over that event. What the conventional psychotherapeutic community is referring to as PTSD is merely neurotic behavior at its extreme pole. At one end of the spectrum is the person whose mild fear memory intrusion is preventing him from establishing a loving relationship with his mate. At the opposite end of the spectrum is the person whose severe fear memory intrusion has resulted in Dissociative Identity Disorder.

Rape is a traumatic event. But so is being a sensitive young boy who is always being picked on for being a "little girl". So is being a young child and being continually told that you are stupid or bad. So is the experience of a "fat" or "skinny" person who desperately seeks approval by a social group, who, instead, is continually and openly humiliated by them. So is the child who is a victim of bullying in the school environment. While there is a difference in the intensity of these events, there is no difference in kind, with regard to how the brain processes these events. *In all cases, the person's, fragile, developing sense of "self" is being assaulted by a dis-integrative event.* A thoughtful recollection of one's childhood will lead to the realization that every young child's environment is filled with events, which have the potential to dis-integrate the developing sense of self. Even in what is referred to as a normal childhood, the continuity of self-awareness is continually being threatened and must be preserved in some way. The process of dissociation is the protective mechanism. The intensity of the dissociation determines the intensity of the neurosis. And, all human beings exist somewhere along that continuum.

What Janov has been saying for over 30 years is that all neurosis is trauma-related and must be treated accordingly. Where his views of trauma differ from van der Kolk and others is in the domain of traumatic occurrences.

For Janov, trauma can be experienced and encoded from the 26th week of fetal development. Thereafter, all painful experiences in the womb are traumatic. An unfavorable birth experience is traumatic. An unfavorable early life environment is traumatic. He believes that imprinting (encoding of traumatic memories) is curtailed at around age ten. The author believes that it continues throughout life and not only in the case of extreme trauma.

Again, Van der Kolk's work seems to imply that imprinting occurs in an on/off fashion during highly traumatic experience. The author suggests that it occurs in a rheostated fashion, during any event, which has the potential of disrupting the continuity of one's self-awareness. Remember, the disabling of the hippocampal and neo-cortical structures occurs because of a high level of cortisol, which is a direct effect of a highly stressful event. There is no mechanical on/off switch. Rather, there is a continuous rising of a disruptive hormone. So, it would seem logical that higher cortical function might be disrupted in a progressive way.

Primal Memories Generate Psycho-neurological Imbalances

Baker has this to say about the study of illness in general:

"The theory, if you can call it that, that has dominated medical science for 70 years is that people get sick because they are the victims of disease entities. A better theory, in my opinion, is that people get sick because of a disruption of the dynamic balance that exists between themselves and their environment." (24)

One can apply Baker's general health theory to the process of emotional health.

Sound emotional health requires a balanced and accurate response of the nervous system to environmental stimuli. This is accomplished through the action of the autonomic nervous system. This part of the nervous system reacts to its environment in two equal but opposite ways. One set of responses is initiated when one encounters a need to be protected from something. This is called the sympathetic response. When this system is activated all of the body functions are sequestered for the purpose of allowing the body to either defend itself against the threat or to run away from it. This process involves flooding the system with stress hormones, whose catabolic effect upon body cells fuels the heightened fight, flight, or freeze responses.

When the threat is dealt with, the body returns to its parasympathetic mode, in which the body processes are relaxed and can begin to repair from the effects of this heightened state of arousal. One of the mechanisms of the parasympathetic response is crying. Frey's (25) research has proven that emotional crying is a detoxifying process whereby the body gets rid of the stress producing hormones left over from the sympathetic discharge.

Because the nervous system is continually adapting to a highly variable environment, the life process reflects a constant cycle of sympathetic and para-sympathetic responses. And, when they are working in a balanced way, these autonomic responses enable one to live in a healthy (balanced) emotional and physical state. In order to function properly, in either the sympathetic or parasympathetic modes, *proper responses to the stimuli of each mode must be allowed to occur.*

It is quite natural to get angry and to freeze, fight against, or run away from real, threatening events. And it is quite natural to cry after the threat is removed. It is how the body readjusts its equilibrium after a frightening encounter. But, when these heightened responses occur spontaneously, without the presence of an actual threatening event, we are acting neurotically.

The process of socialization has interfered with this natural cycle. This natural, self-balancing system gets disturbed very early in life. Poor parental attachment behavior during the first nine months disturbs this balancing mechanism. Later on, parents begin teaching the child how to defeat these normal responses. They do this by ignoring, punishing or shaming the child. Rarely do they take the time necessary to witness and contain what is perceived by them as unwanted behavior. Rarely do they allow the natural progression of this autonomic response.

According to Solter:

"not all crying is an indication of an immediate need or want. Much of it is a natural stress-release mechanism that allows children to heal from the effects of frightening or frustrating experiences that have occurred previously. Children use tears and tantrums to resolve trauma and release tensions. It is therefore not the caretaker's job to stop the crying or raging, because these behaviors are, in themselves, basic needs from birth on. " And: "It is best if babies and children who cry are never ignored. Their cries should always receive a nurturing response." (26)

Instead of this nurturing response, our parents tend to treat our anger and tears as annoyingly primitive, unpleasant behaviors, which must be ignored, shamed, or threatened out of us as soon as possible.

Because of a failure on the part of parents to see their child's anger/crying cycle as a natural homeostatic mechanism, children develop "... a disruption of the dynamic balance that exists between themselves and their environment."

Human Development And The Roots of Neurosis

In order to properly understand Janov it is necessary to have an ecological concept of human development. All living things emerge out of, and grow into an environment that is continuously flowing through it like a silent, invisible tide. As the environment flows, every one of the trillions of cells that make up the individual, actively captures and integrates the elements of the environment that it needs to maintain life and health. This process is called nutrition. In the process of doing this, byproducts of this interaction are generated, which can threaten the integrity of the cell. Additionally, dangerous substances enter the body and substances are taken in, *in excess of that which the body can process*. Therefore, the body also acts to isolate these threatening and/or excessive elements and returns them to the environment. This process is called detoxification. The continued existence and maintenance of the health of the internal environment is achieved when there is a balance between these processes. The process of detoxification, of protecting the living cell from dis-integrating events, is so critical to the life process that up to 80% of the body's daily energy expenditure is used to accomplish this. (27) To the extent that this balance is disturbed, one experiences this dis-equilibrium as "illness". This is the way that a naturopath understands health and sickness.

The first environment is mother's womb. This is where all mammals begin their emergence from the energy field. And, with the exception of certain substances that cannot cross the placental barrier, mother's environment flows through the fetus like a silent, invisible tide. The elements of this environment are captured and integrated into the fetus's cellular structure, during this time. The fetus returns the byproducts of this integrative process back to mother, who returns it to the general environment. Mother's emotional reactions to her environment exist as flows of chemicals, such as hormones. So, in a very real sense, mother's physical and emotional experience during pregnancy is also the fetus's experience.

The sensations that the fetus experiences in response to this environment can be either pleasant or painful, depending upon whether the environment is nurturing to its growth or antagonistic to it. These experiences are entered into primal memory as either pleasant or painful sensorimotor data. This is the only type of memory-making that exists at this point of our development.

The primal memory system is recording our intrauterine experiences and the experiences during the first six years of our lives in terms of these physical sensations and emotions.

To recall such a memory later on in life is to re-experience the pleasant or painful sensations.

This primitive memory system is a function of the right hemisphere of the brain and is in operation well before the myelination of the corpus callosum. This is a structure, which connects the left and right hemispheres of the brain. Because of the early disconnection

with the left hemisphere, amygdalic memories are uninformed by left hemisphere logic functions such as time sequencing. In the right hemisphere, the time is always now. It is the left hemisphere, which enables us to have a sense of the past. Because of this, a recalled primal memory has the urgency associated with the present. It feels like it's happening now (and it is, in that the physical sensations are happening now and are triggering the same sympathetic response within your body as did the original fearful experience). This lack of connection to left hemisphere functions, this lack of time contexting, enables one to mistake present experience as being the cause of the recalled uncomfortable feelings.

Human beings are born prematurely. This is necessitated by the evolution of the very large brain. Because of its size and rapid growth, human babies must be delivered within nine months, or their heads would not pass through the birth canal.

Because of this, the child is delivered only partially developed and thus completely dependent upon its caregivers for its very existence. Human beings are, in effect, still in the fetal stage of their development during the first nine months after birth. It takes another nine months of development before crawling enables the child to begin its ability to remove itself from dangerous situations. So, the child is as helpless and dependent during the first nine months after its birth as it was in its womb life. Additionally, its brain is still in the process of wiring itself. Indeed, it is not until the 5th and 10th years, respectively, that the hippocampal and corpus callosum structures of the brain are fully myelinated.

Thus, Montague (28) urged the viewing of the human gestation period as being eighteen, rather than nine, months. And John Bowlby felt that continual holding and mirroring of the child's expressions (for the nine months after birth) was *absolutely necessary* for the proper emotional development of a child. And, indeed, work by Schore (29) and other modern attachment oriented researchers demonstrates that the frontal structures of the child's brain, responsible for impulse control, are severely compromised by the lack of proper parental attentiveness during this early period. The brain actually prunes away important nerve cells in this area, in response to faulty parenting.

During the first nine months ex-utero, a child has a biological drive to have contact or at least close proximity to its mother when in need. Bowlby called this drive "attachment".

He felt that separation from mother was developmentally disastrous for the child because it interfered with the child's instinctual needs during this time.

If the child is in need, in pain, is frightened, startled, etc. it will instinctively behave in ways that elicit closeness from the mother (eye contact, smiles, crying, clinging). This he called "attachment behavior". *The mother's attentive response to the child's instinctive behavior gives the child the other half of (the environmental component of) what it needs to cope with the experience.*

So, the mother's mirroring and touch during this phase of development is to be seen as a form of nutrition, just as is food and drink. *Not only is the mother's responsive behavior a nutrient, it is an essential nutrient.* Just as the body cannot achieve proper physical structure without the availability of essential nutrients, the mind cannot achieve proper psychic structure without the availability to the child of its mother's essential attachment input. The quality of this nutrition can be rich or poor. The child's emotional development will be robust or stunted, depending upon the nutritional content of the mother's attention. The mother's responses to the child's attachment behavior during this critical period of development form the template for the child's future responses to the world. Since the child records its experiences as sensorimotor data during this time, poor attachment behavior on the part of the mother results in the child's inability to process its fearful experiences. This, in turn, results in dissociation and the formation of a pool of painful primal memories within the child.

If the parent consistently behaves in a way that is qualitatively responsive to the child's attachment behavior, the child will develop a secure relationship or attachment style.

To the extent that the parent fails to mirror (or attend to) its child's attachment behavior, the child will develop an ambivalent or avoidant relationship with its mother.

The mother's failure to adequately attend to the child's attachment behavior is a failure to provide the "essential nutrients" necessary for the child to process its stressful experiences. This lack of nutrition is highly stressful for the child. It is not getting what it needs from its environment to properly process its distressing experience. So it begins to dissociate from this experience. And a fear memory is created and stored.

One can think of the mother and child relationship as being symbiotic. It is simply nature's way of extending the womb relationship. Whereas the child's needs are met through the umbilical cord and placenta during the first nine months, its needs during the second nine months are met through the synchronous need/need fulfillment relationship of the mother and child. *The child's attachment behavior and the mother's synchronous response is nature's way of extending or continuing the placental relationship.* In fact, it is interesting to note that the placenta itself, is an organ, which is made up of the tissue of both the fetus and the mother. Here's a good example of what is meant by the phrase "the organism and its environment are a single entity". From the moment of conception, through the child's nine months, ex utero, the mother and child are to be seen as a single functional unit: the mother-child dyad. The research of Attachment theorists is revealing that, with regard to the proper brain and emotional development of the child, that dyad is an inseparable, mini-environment.

The child's attachment behavior is instinctual. It is not clear whether the human parent's response behavior is instinctual (but subject to modification by experience) or whether it is learned. In either case, this means that a mother can fail to fulfill her half of the symbiotic relationship.

If the symbiotic relationship is properly established, the child will "develop good cause/effect thinking, feels powerful, trusts others, shows exploratory behavior, develops empathy and a conscience". (30) In other words, the child grows out into its environment, which it experiences as pleasant, just as a plant is attracted to the warm rays of the sun. *In this case, the infant's pool of primal memories is being loaded with pleasant sensorimotor data, which will be continually reexperienced and projected into the world throughout its life. Life generally feels safe and good.* This is referred to as a secure attachment.

If this relationship is faulty the child begins to develop mistrust and shuts down attachment behavior. A faulty symbiotic relationship can create avoidant attachment, in which the child begins to avoid the parent (lack of eye contact, turning away etc). In other words, the child retreats from its environment, which it experiences as painful, just as any living thing retracts from a painful stimulus. That is, *the attachment challenged child, because it lacks the nutrients necessary to process its stressful experiences, becomes overwhelmed by these experiences, dissociates from them, and, thus, begins its lifelong reaction to the fear memory or imprint of his frightening, unprocessed experiences.*

Thereafter, a prior fear reaction gets chronically linked with present activity. This manifests itself in a resistant/ambivalent attachment , in which the child either passively or actively shows hostility toward the parent (the parent has become a trigger for the infant's fear memory retrieval). And, because the brain has the ability to associate and generalize its experiences, this early behavior translates into similar relationship behavior when the child becomes an adult. *In this case, the attachment-disordered infant's pool of primal memories is being loaded with unpleasant sensorimotor data, which will be continually reexperienced and projected into the world throughout life. One is here describing the roots of neurosis.* To such a person, life generally feels painful and bad.

As Janov says

“..the way we love children is by fulfilling their basic needs, even before they become children.” (31) And,

“We cannot develop our brains by ourselves. We need the caregiver's input. His or her love governs our brain. His or her rejection deforms our brain.”(32)

The Toxic Mind Hypothesis

Continual Repression of Fear Memories Precipitates Neural Toxicification

Van Winkle (33) has speculated about the biological dynamics of neurosis. According to her, the nerve cells of the autonomic nervous system are labeled either noradrenergic or cholinergic, depending upon what neurotransmitters they use to project information across synaptic space. The nerve cells of the sympathetic arm of the autonomic nervous system use noradrenaline for this purpose. The parasympathetic arm uses choline.

Stressful experiences in our lives excite the sympathetic response and the physiological consequences in our body are initiated by a cascade of noradrenergic facilitated communication between cells in this system.

If primal theory and fear memory research is correct about the primal or fear memory making process, then the original fear making experience would be encoded on protein molecules along noradrenergic neural circuits. The initial reaction to the fearful situation excites the sympathetic response, then the overwhelming nature of the traumatic event blocks its subsequent expression via the mechanism of dissociation. That is, noradrenaline is released into synaptic spaces in order to prepare the body for a response to a threatening experience, and then this neurotransmitter is not fully utilized in creating this response. This creates a condition of excessive intracellular accumulation of noradrenaline (NA).

This situation requires the uptake of the neurotransmitter by the issuing neuron. Since new neurotransmitters are continually being manufactured and stored in pre-synaptic vesicles, some of the excessive synaptic neurotransmitter must be absorbed into the nerve cell body itself. This is accomplished by vacuoles, which can move to the cell membrane, open it, engulf the excessive (therefore, toxic) substance, and encapsulate it within the body of the nerve cell. This is a good example of how cells have evolved a means of temporarily adapting themselves to toxic conditions. The cell can actually encapsulate its toxic environment *up to a certain limit*. This condition can be seen in the post-mortem examination of the brain tissue of psychiatric patients. (34)

If Primal theory is correct about the continual presentation of the imprint (automatically recalled fear memories), then each time the memory is recalled, the sympathetic response is (re)-initiated and more noradrenaline is secreted into the synaptic spaces within the noradrenergic circuits of the autonomic nervous system. In other words, the memory of the original, unintegrated, traumatic experience causes the activation of the sympathetic response over and over again. This fits the definition of a chronic condition. *The author assumes that this process is at work in Soltier's description of children using tears and tantrums to heal unresolved issues. It is the reason why children rage and cry in a seemingly "irrational" way. That is, they are reacting to the imprint of their original, unprocessed fear experience, rather than to present reality.* Hence, neurosis can be seen as being a chronic neurological condition, with the automatically recalled imprint being the cause.

The mechanism of repression, once again, defeats this response and the neurotransmitter must be once again up-taken and/or encapsulated by the nerve cell vacuoles. Once this process has been initiated, the level of noradrenaline in the nerve circuits builds, incrementally, to a level at which it can no longer be tolerated. When this is sensed, a detoxification crisis is initiated.

This process involves the partial breakdown of the nerve cell membrane and the dumping of excessive accumulations of noradrenaline into intercellular space. This dumping of toxic levels of noradrenaline results in the over excitation of neurons along adjacent nerve circuits. It is estimated that each nerve cell shares synaptic space with 200,000 other nerve cells (35). The consequence of this dumping is, thus, the initiation of a generalized sympathetic discharge. We fly into a misdirected rage. We over react to seemingly neutral events, etc.

“Because of the spatial nature of nerve transmission, messages may travel through alternate neurons causing distorted and compulsive thinking, delusions, hallucinations, psychosis and unintended behavior. As a result of a vicarious elimination of toxins a person might direct rage inwardly as suicidal behavior or toward an innocent person in an aggressive assault”. (36)

This discharge is misdirected because the nervous system has displaced the fear memory from conscious thought process and integration. So, when the fear memory is retrieved (remember, only the physical sensations of a fear memory are retrieved), there is no self-awareness involved. There is no directing of thought toward the actual cause of the fear memory. This means that, within the fear memory holding circuit, only enough of a stimulation is initiated to reduce the levels of noradrenaline to a point just beneath which the detoxification crisis can be initiated. Then the process terminates. This leaves a toxic nerve circuit, which is forever hovering just below the limits of detoxification crisis. *The neurotic mind is, thus, a toxic mind.*

As was stated previously, the successive repression of the sympathetic response, made possible by the fear memory making and retrieval process and dissociation, results in the accumulation of toxic levels of noradrenaline in neural cell bodies.

It has also been stated that the mind brings up memories as a result of a current trigger, having the same feeling as the memory.

Additionally, it has been speculated that memory is encoded on protein molecules and that these molecules must be broken down and re-assembled with each memory recall. A recalled memory, its appearance before the mind's eye, may be the released memory data in its original energy state, after having been freed from the bondage of the protein molecules. As the molecules re-assemble, the energy state may be “embodied” in protein once again, for subsequent storage and retrieval.

Therefore, the triggering of a fear memory by a present situation necessitates the breakdown of the protein memory vehicle. Breakdown byproducts of protein are acidic. And, an acidic nerve environment both contributes to the toxic load and assists the partial breakdown of the neuron and the resultant dumping of excessive toxins. The recollection of a fear memory, which is stored along neural circuits that are saturated with toxic levels of noradrenaline, initiates the breakdown of parts of the nerve cell and a subsequent detoxification crisis.

Because the fear memory is continually suppressed, the nerve cells on which it is stored never get cleared of toxic metabolites. They are continually hovering at the edge of detoxification crisis - forever awaiting the next trigger. Van Winkle thinks that the act-out (or, behavioral symptom) is the nervous system's way of attempting to trigger this crisis, since the initial part of the crisis is stimulatory. According to her, this is the basis of addiction.

Because of the immediate nature of the fear memory (its lack of occurrence within the domain of self-awareness), it is automatically linked to whatever triggered the recall: i.e., the fear reaction is mistakenly experienced as having been caused by the trigger. Hence, one always hears in neurotic acting out: "Look what you made me do!" "You made me angry." "You're driving me to drink." Etc. *In neurosis there is no awareness that the fear response is being generated internally.* This is because the fear memory is encapsulated in the right hemisphere, uninformed by left hemisphere logic functions such as time sequencing.

Because the noradrenergic neural network on which the primal memory is stored is hovering on the brink of a detoxification crisis it is continually ready to be discharged by anything that increases the toxic load. That "anything" can be the next fear memory retrieval (which results in the acidic breakdown of the toxic nerve circuit).

In summary, then, something in the present occurs, which feels like the original fearful experience. This feeling marker stimulates the toxified primal neural circuit. The protein molecules upon which the memory is stored is broken down. This results in the retrieval of the memory, its projection onto the triggering object, and the generation of acidic metabolic breakdown byproducts (resulting from the protein dis-assembly). The consequence of the memory retrieval is, thus, a neurotic acting out, accompanied by a massive sympathetic discharge.

The discharge is linked to no specific past object because of the dissociative process. Hence, it is projected onto the source of the present trigger. Van Winkle refers to this as a *vicarious detoxification crisis*. This term may be a description of Janov's definition of an abreaction. This will be discussed later in the paper.

One can think of the neurotic act out as an automatic attempt to stimulate a detoxification crisis. But, because the act out is, by definition, a response, which is directed onto the wrong object, the source of the act out - the memory that is encoded on atrophied noradrenergic nerve circuits- is never fully released (that is, the proper memory holding

nerve circuit is never stimulated beyond the threshold of the detoxification crisis).

In other words, we are continually getting angry at whoever or whatever triggers our fear response. But the true source of the original fear memory is blocked from self-awareness by the process of dissociation. If this is true, then the only way to clear the fear memory circuit is to continually direct the thoughts toward the causal agent of the original fear memory. *The left hemisphere, frontal structure of the brain will automatically accomplish this, if the memory can be presented to it in a way that disables the dissociative process.* This is the goal of primal therapy. And this is why it is a curative therapy rather than palliative.

Janov's Evidence

Janov speaks of neurosis as being a lack of communication between the two hemispheres of the brain (37). The imprint is stored in the right hemisphere and, because of the dissociative function, is isolated from the left hemisphere. The two parts of the brain are unaware of one another. His process of primalling the imprint results in a connection between these hemispheres with regard to the imprint. This connection is the goal of therapy. Because the imprint makes a connection with the left hemisphere, it gets time contexted. Before the primal, the imprint comes and goes in the present (this is the nature of a conditioned response). After the primal, the imprint comes and goes with the felt sense that the reaction belongs in the past. During the primal process one slowly becomes aware that present experience may not be causing one's current fear reaction. And, if it is not, where else can it be coming from? The response is being generated internally. In other words, there evolves the ability to think logically about current emotional reactions. Logic and time sequencing are functions of the left hemisphere. Because of connection, a rift in the stimulus response nature of the conditioned fear memory is created. *This rift signals the beginning of the healing process. As the primal process continues, the rift widens, and one is presented with more and more of an opportunity to logically examine the triggered emotional response.*

It is Janov's contention that this connection is objectively demonstrable via vital sign measurement and by the process of brain mapping (38). His studies have demonstrated that primal therapy has a normalizing effect on the autonomic nervous system.

His therapists take patient vital signs (temperature, blood pressure, and pulse) before and after a session. If connection has occurred in a session, all of the vital signs fall below the baseline (before session) measurements in concert with one another. In Janov's view, if the measurements are erratic and do not fall below baseline measurements, the patient has only abreacted.

Another objective test of connection is brain wave activity before and after the therapy. Janov considers EEG responses as vital sign measurement, also. Studies done at four major universities have shown how relieving pain changes the brain map. In general, the

EEG studies

“reveal changes in brainwave frequency and amplitude after the patient gains access to and resolves traumatic memory. They indicate that the brainwave patterns of advanced primal patients are less repressed and less busy. The brainwaves are better synchronized and slower, and the amplitudes are more evenly distributed over the whole brain. We also see a better balance of activity between the right and left hemispheres.”(39)

Additionally, with the advent of new software, real time studies of patients’ brainwave activity during a session is now possible. Janov claims that by the study of the patient’s delta, theta, alpha, and beta wave activity, it is now possible to study the patient’s progress in a session. The type of brain wave activity at any particular time, tells the therapist at which level of consciousness the client is processing information.

These studies have been reported in the UCLA Brain Research Bulletin and Acta Scandinavia. Yet, even though conventional psychotherapy has demanded “objectively verifiable data” none of these studies are referenced in the literature.

Finally, the spontaneous welling up of insights after a session is a subjective, but very important indication that connection has occurred. According to Janov, the client’s surety that the insight is real is “a second major indication of a true primal experience”. (40)

The author’s experimental data supports Janov’s assertion that primal facilitation has a normalizing influence on the stress adaptation response of the autonomic nervous system.

The Mind’s Eye

Any study of primal facilitation should include an awareness of how one attends to what is being relived. It is generally understood that, to recall information, is to hold a visual image up before the mind’s eye. And, whenever this is done, there is the sense that the object of consideration belongs in the past. That is, the data from the recalled memory is time-contexted.

During a recollection, the mental image exists, three-dimensionally, in the mind and *it is also being observed*. The ability to observe mental images is referred to as the “mind’s eye”. It is one aspect of evolving self-awareness. Yet, science does not understand this function at all. The study of self-awareness is at the cutting edge of neuroscience. And it is critically important to understanding the process of primal therapy.

Damasio reminds the reader that mental images are not just visual.

“By the term images I mean mental patterns with a structure built with the tokens of each of the sensory modalities - visual, auditory, olfactory, gustatory, and somatosensory.”(41)

For instance: how is one aware that one is in a certain body position, when one cannot see oneself in this position. The answer is that sensorimotor data from many proprioceptors throughout the body is being presented to image space. When the question of position is posed, this implicit data is drawn into image space, where the mind’s eye is able to reflect upon the non-visual image being created by this data. And, the answer is thereby known. In other words, a visual image of oneself in the lying down position is not necessary to knowing that one’s position is such and such. The mind has assembled a sensorimotor image in this case. *And this image is reflected upon by the mind’s eye in the same way as is a visual image.* This reflection results in a knowing about our present position in space.

The construction of an image takes place “when we engage objects, from persons and places to toothaches, from the outside of the brain toward its inside; or when we reconstruct objects from memory, from the inside out, as it were.”(42)

All of our memories, the record of every one of our experiences, “exists in dispositional form (a synonym for *implicit, covert, nonconscious*), waiting to become an explicit image or action”. (43)

Finally, Damasio says that the “*image space* is that in which images of all sensory types occur explicitly”. (44) This image space may be Damasio’s way of describing the window or energy field in which sensory data is gathered and held up to consideration by the “mind’s eye”.

When an implicit memory is recalled, it is done automatically (it does not require conscious effort). Two types of implicit memory are: procedural (memory for skills, which become automatic over time) and dispositional (behaviors learned through classical or operant conditioning). In order to ride a bike or to react in fear to something, one does not have to consciously recall the memory. It is automatically retrieved. And, *we do not reflect upon these memories.* They are not held up to the mind’s eye. Fear memories are dispositional memories.

Damasio states that we make dispositional memories explicit by bringing them into the image space.

With regard to dissociated dispositional memories, however, a little more is required. *Attention must be paid to sensory overload.* This is because the brain automatically reacts to sensory overload by dissociating it away from image space. So, this automatic defensive function must be overcome, in order to bring fear memory into image space. Janov refers to this as working within a “sensory window”.

Also, since dispositional memories happen to us, one cannot consciously direct their emergence as one does normal declarative memories. Rather, one sets the stage in which these memories are automatically triggered.

Homeopathy The Nature of Symptoms

Samuel Hahnemann was a German physician and chemist who left the orthodox medical profession because he felt that the accepted "state of the art" medical practices of his day, such as bloodletting, poisonous doses of mercury and arsenic, and other treatments of disease were harmful. His discovery that *substances in small doses stimulate the organism to heal that which they cause in overdose*, led him to formulate the Law of Similars, which is the Basic Principle of Homeopathy.

"Hahnemann's observation that a substance able to mimic a sick person's symptoms can help cure the patient prompted a revolutionary understanding of symptoms. Instead of assuming that symptoms represent illogical, improper, or unhealthy responses of the body and that they should be treated, controlled, and suppressed, Hahnemann learned that symptoms are positive adaptive responses to the variety of stresses the body experiences. Symptoms represent the body's best effort to heal itself. Hence, instead of suppressing symptoms, therapies should stimulate the body's defenses to complete the curative process."(45)

Hahnemann also believed that "a person's inherent healing powers were so strong that only a small stimulus is needed to begin the healing process". And "once the healing process begins, it is best to do nothing more but let the process continue in its own way". (46)

A common experience of those who use homeopathic medicines to treat chronic conditions is that symptoms may initially get worse in the process of cure. This is sometimes referred to as the "aggravation" of symptoms.

Likewise, during primal facilitation, behavioral aggravation of symptoms may occur because facilitation is stimulating the atrophied neural circuits upon which the fear memories are stored. Because the circuits are being re-energized, they become better able to release the fear memory. This increased ability appears as an aggravation. That is, the behavioral symptoms may initially get worse in the healing process.

A facilitator of naturopathic emotional healing, likewise, sees symptoms (neurotic behavior, in the case of emotional disorder) as the body's continual attempt to get rid of the underlying cause of the problem. This means that the act out is the attempt of the person to initiate a detoxification crisis. The problem is, the act out is directed onto the wrong object.

Because of the disconnect between the encapsulated primal memory and left-brain logic functions, we believe that what is happening right now is causing us to act the way we do.

The process of primal therapy can be seen as an attempt to exacerbate the various symptoms of neurosis by paying attention to the rising pain of the primal memory. This memory is full of fear, misery and tears. To feel the content of this memory, *to experience the pain in small doses and to rage about it (in its original context), is to initiate the healing process.* An “overdose” of painful information is what triggered the dissociative process. This process, in turn, set up the conditions for the development of the chronic condition of neurosis. A re-experiencing of this painful information "in small doses" stimulates a "healing crisis". These healing crises begin to reverse the chronic neurotic condition. As Janov says: primal therapy is neurosis, in reverse. The primal facilitation process, thus, embodies the homeopathic belief that "like cures like". Afterward, the crying and tears is the healing phase or recovery period of the crisis.

Within each emotional healing session, then, the facilitator helps the client to experience "in small doses" that which caused the neurosis "in overdose".

The phrase “in small doses” implicitly embodies the importance of Janov’s sensory window concept in therapy.

This action thereby stimulates the client's natural healing process. Thus, the primal oriented, naturopathic emotional healing process can be seen as being a homeopathic activity.

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Chapter 3

IMPLICATIONS

A Naturopathic Anatomy of Neurosis

Conventional allopathic psychotherapy is not concerned with ultimate causes of emotional disorder. Indeed, it seems to pride itself in the atheoretical model to which it has been forced, by the lack of an adequate causal explanation. On the other hand, Janov has presented the field with an explanatory causal hypothesis and has demonstrated that his hypothesis has objectively verifiable and repeatable predictive power. Because of this, he has referred to Primal Therapy as the first scientific psychotherapy. And, because his hypothesis addresses causes, it must be considered naturopathic.

By synthesizing Soltier's (1) theory of child development and Janov's Imprint hypothesis, one can construct a reasonable naturopathic theory about the development of neurosis.

In utero, a non-nurturing, stressful environment results in the creation of a pool of distressing sensorimotor memories. This, in turn creates a condition in which the newborn can spontaneously and chronically re-experience these distressing sensorimotor data. This may be the reason why some newborns are considered "colic" or problematic.

Whenever the infant experiences a real distressing stimulus, it responds by getting angry and crying. Its parents then know that something is wrong and respond by taking away the distressing stimulus. This might be hunger, a wet diaper, etc. The child might cry for a while afterward, but then its balance is restored. Or, it may be startled by something in its environment and turn to its mother for help in processing this disturbing event.

If its parents do not respond properly to its needs, the pain of deprivation increases. But the pain cannot increase indefinitely, or it would die. There is a level at which the nervous system begins to block the pain signals. This is a survival mechanism. And it is the substrate of the dissociative process.

Once this level is reached, the frightening experience loses its "window of opportunity" to be processed, the sympathetic response is truncated, and a fear memory of the distressing stimulus is created, along with the creation of neurotic tension in the body. That is, something distressing has happened to the body, it is unable to be processed (because of poor attention by the caregiver), so the event is filed away for future reference (in the form of uncomfortable body sensations).

Definition: tension is the force that is present in any natural system, which is forced out of balance (ie, water trapped behind a dam). Once a dam is constructed in a waterway, which constricts the normal flow of water, the water behind the dam is forever generating

a force on the walls of the dam, trying to get back to its normal, level flow. This force is called potential energy and it increases in direct proportion to the amount of obstruction.

Likewise, neurotic tension (potential energy) is nature's way of creating the possibility of reestablishing emotional balance (resolution) in a disturbed emotional process. With the establishment of chronic fear memory retrieval, nature presents an opportunity to offer up the original fear memory to a healing window of opportunity over and over again.

Because of the automatic retrieval function, these memories keep resurfacing and stimulating sympathetic responses. This is fear memory retrieval.

The retrieval of the fear memory results in a response to a real physical stimulus: a heightening of the autonomic sympathetic response system. With the memory release, we begin to re-express the sensorimotor/emotional discomfort of the original (unresolved) traumatic incident.

What's different in this situation is that no present need is triggering this activation. Rather, a memory is triggering it: something from the past.

So now there exists a situation in which a real, present sympathetic response is occurring, because of a past memory intrusion. This past memory intrusion is not visible and it is not a response to a present condition. So, the child's behavior is seen as being *functionally disordered*, since there is no apparent physical cause. This is the definition of neurosis.

Thus, the child's spontaneous attempt to heal itself from a past trauma by raging and crying in the present can be seen as rudimentary neurotic behavior. The neurotic process was begun, neurotic tension was established, because the trauma went unprocessed when it originally occurred.

Instead, the child's behavior seems irrational to the parent. They want it to stop. So, they begin to teach the child control patterns. They teach it how to distract itself from its discomfort. These can be pleasurable (giving sweets & food, even though the child is not hungry) and painful (threats of abandonment and shaming of behavior, etc.) The child soon learns that certain substances can buffer its angry and tearful feelings. It learns that something bad will happen when it cries or gets angry. It learns to respond to fear memory intrusions in ways that blunt the physical effects of the intrusions while, simultaneously, gaining the parent's approval. It gets this approval and feels better, even though the fear memories continue to exist and will continue to exert their effects. And when they come up again, the child acts out again, instead of responding appropriately to the signals of the fear memory. That is, one learns how to continually call upon one's *learned proxy tools of repression* to dull the constantly emerging fear sensations.

A situation has now been set up in the child's nervous system in which there is a functional disconnect between a very real stimulus (fear memory content) and a healing response to that stimulus: anger and crying. The fear memory content is always coming

up and it is never allowed to be expressed. The child learns how to automatically do this. And the nerve circuits on which this content is stored gradually atrophies and becomes increasingly toxified with excessive, unexpressed noradrenaline.

With maturity comes the acquisition of more and more complex ways in which to be distracted from this fear memory content. The most impressive distraction comes from the maturation of the highest brain structure. It is learned that words and ideas can be used to defend against uncomfortable feelings. One of the functions of the frontal cortex is to modulate conditioned fear responses. The adult cortex is so powerful that it can be used to block lower-level pain signals. This is quite dramatically shown in hypnosis, where someone fails to feel a pin prick, upon receiving the suggestion that the pin is a feather. Some forms of meditation do this. Meditation can be quite powerfully used to quiet a busy mind. It can be used to lower core body functions and to lower stress. But little attention is paid to why the chronic stress is there in the first place. Chronic stress is symptomatic of a deeper process (constant fear memory retrieval). Hence, meditation is blocking the pain signals temporarily. Janov's research has proven that some forms of meditation are pain blockers. And, like any other activity whose purpose it is to address symptoms, if meditation is not continued, the fear memory content begins to rise into consciousness once again. This is why everything that is done, which is predicated upon the treatment of symptoms only, must be done habitually and forever. The leaves are forever being trimmed from the weed. And they are forever growing back, sometimes more vigorous than before.

The Naturopathic Facilitation of Emotional Wellness General Considerations

Turton quotes a research paper published in The New England Journal of Medicine in his online journal:

“Extrapolation to the US population suggests that in 1990 Americans made estimated 425 million visits to providers of unconventional therapy. This number exceeds the number of visits to all US primary care physicians (388 million). Expenditures associated with use of unconventional therapy in 1990 amounted to approximately \$13.7 billion, three quarters of which (\$10.3 billion) was paid out of pocket. This figure is comparable to the \$12.8 billion spent out of pocket annually for all hospitalizations in the United States.”(2)

Judging by the dollars that are being spent on alternative medical treatments there is an emerging awareness by the people that conventional medical treatment (the treatment of symptoms) is not enough. There is a strong call to join naturopathic healing modalities with the conventional treatment of disease. Pub Med now has an entire section of references to research into naturopathic treatments. It is time to consider a naturopathic psychotherapy. It is time to consider a therapy that claims to heal emotional problems

rather than just treating the symptoms.

In naturopathic medicine, the foundational assumption is that cellular toxicosis is the underlying condition of disease. This condition generates the multiple symptoms, which are associated with separate disease. *There is but one disease: toxicosis.* Treat the toxic state, not the symptoms of that state.

So, instead of generating a catalog of symptoms, each group of which are treated as distinct "disease entities", a naturopathic emotional healing modality would proceed on the assumption that one underlying condition generates the multiple abnormal behaviors that we refer to as neurosis. That underlying condition is the existence of amygdalic memories of traumatic events: *primal memories, fear memories, or Janov's Imprints.* Their chronic activation and repression precipitates cellular toxicity in the neural circuits on which the fear memories are encoded. The physiological consequences of this toxicosis produces periodic over and under excitation of the nervous system. Logically then, if the one underlying condition is removed, neural toxicity and unwanted behavioral symptoms should disappear.

In this way it can be seen that the ordering of abnormal behavior in primal therapy, and its subsequent treatment, is naturopathic. The task of any natural emotional healing process, then, is to eliminate the toxic condition. The source of the toxic condition is eliminated when the primal memory is integrated into the whole psychic structure. Successful integration of a painful primal memory removes the chronic condition, whereby nerve circuits are toxified. *Resolution can now be defined as the termination of a detoxification process.*

Arthur Janov has been consistently adamant in his refusal to teach the techniques of primal therapy to anyone but his students. In addition to this, his therapy is extremely expensive and requires traveling and rooming-and-boarding in the Los Angeles area, which is in itself a large expense. The reality is that very few people can afford his therapy. And, most insurance plans today will only pay for limited conventional "talk style therapies" and unlimited treatment with psychotropic medication. And each provider claim must be keyed into one of the DMV-generated "illness" categories.

So, a naturopathic emotional wellness therapy exists, which, *unlike other naturopathic therapies,* has no means of reaching the people on an affordable, grassroots level. How then can this therapy ever reach the masses of people in need of relief from neurotic suffering?

While he does not get into the specifics of therapeutic process, Janov does present some very important general guidelines for correct therapy in his books. And, if the author is correct in the conclusion that all neuroses are post-traumatic stress disorders, then guidelines for effective facilitation can be developed from Janov's general ideas, as well as by studying the information, which was presented in this thesis.

Previously, the author concluded that spontaneous crying and raging in children (when this behavior is not the result of immediate need or want) is neurotic behavior in its simplest form. It is neurotic in the sense that Janov has discussed. That is: the feeling is correct, but the context is wrong. The child is crying and raging *in the present* about a stressor that occurred *in the past*. This phenomenon is made possible by the formation of imprints or painful primal memories, and their constant intrusion into the present situation. This is the neuro-biological mechanism that Janov was looking for, which would explain how a trauma in one's past could emerge in the present. Adult neurotic behavior is not different from this basic infant response. It is just more complex. *The adult has learned to use complicated behaviors as compensating mechanisms for not having been allowed to respond naturally to traumatic experiences.*

A naturopathic facilitator must support the client's retrieval and integration of fearful primal memories. The moderated feeling and integration of fear memories seems to act in much the same way as the delete message acts on a computer. That is, a file is deleted by taking away its name tag. And, although the content of that file still exists within the memory system of the computer, *it can no longer be retrieved.*

Likewise, the primal memory integration process seems to take away the primal memory's feeling tag. "Feeling the feeling", removes the feeling tag. If the feeling tag is removed, a primal memory can no longer be automatically retrieved by present day triggers. If it can no longer be retrieved, its physiological content can no longer be re-experienced by the body. If it can no longer be re-experienced by the body, it is no longer being reacted to. As a consequence, the client can no longer "act out" neurotically.

Notice that the resolution of a neurotic act out is not dependent upon a consciously directed, rational thought process. Rather, it is the automatic consequence of having re-experienced and integrated a previously isolated and unintegrated fear memory. This is the central philosophical difference between primal therapy and conventional behavioral-oriented psychotherapy.

By its very nature, the process of natural emotional healing must be gradual. It must be remembered that the fear memories were initially created and stored, precisely because they were experienced as overwhelming and uncontrollable in the original instance. And, most importantly, these memories are multi-leveled, having a conceptual, emotional, and sensorimotor component. The process of primal therapy is the feeling (deleting) of three-leveled portions of each of these memories. This process starts from the least fearful primal memories and proceeds down the "chain of pain" to the most fearful of the primal memories. As the chain is followed, the body's resistance to feeling the feeling increases. The "charge" of the pain increases as earlier and earlier painful primal memories are accessed. This is because, the younger one was when these painful feelings were experienced, the less control one had over the events. Unmet needs are a life and death experience for infants. The body reacted accordingly.

Therefore, the environment in which the feelings are felt must be completely supportive. It must be held by someone who has participated in his own primal therapy. Or, it must be held by the extremely rare person who was raised according to parenting principles like those expounded by Aletha Soltier. This experience teaches the facilitator that there is nothing to fear about expressing anger. There is, likewise, no shame involved in crying as deeply as needed. *A facilitator who has not felt & expressed his own anger and shame feelings will automatically get uncomfortable around people who begin to express these emotions.* It is an autonomic response, beyond the control of the facilitator.

Conventional psychotherapeutic practice is mistaken, regarding this issue. It teaches that a therapist can prevent counter-transference onto the client by "understanding" how it occurs and being ready for it. A triggered sympathetic response cannot be "understood" away. Rather, when a therapist begins to get triggered, he/she will unconsciously attempt to remove himself /herself from this uncomfortable feeling by maneuvering the client away from these feeling, perhaps by getting the client to talk about them rather than raging or crying about them. *This is precisely what a parent does with a child who is acting out in an unexplainable way. Thus, a triggered therapist is repeating the mistake of the attachment disordered parent.* The feeling of one's feeling may be so scary that the situation may require physical contact for the client, since human contact is our earliest and most powerful means of feeling loved and supported. (Conventional psychotherapy has curtailed physical contact with the client, thereby removing one of the most powerful and biologically fundamental means of helping someone feel safe and cared for). Little by little, if the container is safe, the client feels the fear memory content, thereby making it inaccessible to further retrieval. Little by little, the act out becomes less and less compelling.

The rate at which primal memories are released is critical to the emotional healing process. Stone (3) postulates the existence of a brain "governor" that is active in fear memory processing. He compares the reservoir of fear memories to water trapped behind a stick dam. The water is higher in back of the dam than it is in front of the dam. This gives the trapped memories a strong potential for generating power, when the memories are released. One could equate the degree of potential energy of the stored water with the degree of neurotic tension that the client experiences in his life. The more "water behind the dam", the more neurotic tension present in the client.

Stone's idea is naturopathic. He believes that this governor is there to protect the psychic structure of the mind by only releasing as much of the memory as can be integrated at any one time. It is logical to assume that, if there is a natural function that automatically reacts to protect us from the disruption of self-awareness (during the original event), it would react in the same way to protect us from the re-emerging memory of the original event, if it is once again presented in a way that is overwhelming to conscious awareness. In other words, *dissociation is triggered by real, immediate experience as well as by the memory of this experience.*

To assume the truth of the naturopathic belief that the body can govern fear memory formation and its release is, again, to trust nature's wisdom regarding self-healing. Janov's primal therapy becomes decidedly un-naturopathic on this point. It is his belief

that human beings do not have the inherent ability to coherently release their imprints and therefore, the process must be directed by the therapist. In fact, he likens the primal process to effecting brain surgery. And, by analogy, only brain surgeons should do it. By this he means his own students. The author agrees with Janov's concern, but only in the case of severe orbito-frontal pruning due to severe early abuse and in cases of later trauma that are so severe that the client is unable to function in society. In the former case, the client lacks the brain structure necessary to modulate the fear memory retrieval process. In the latter case, the sensory data of the traumatic experience outstrips the brain's ability to modulate its effects. These cases may become easily overwhelmed by and re-traumatized by the therapeutic process. So, a more structured form of therapy is needed. In all other cases the client possesses the innate ability to modulate and process fear memory data, as long as this process is not forced. This means that the majority of the human population can be safely facilitated by lay people who have undergone their own facilitation and who have had training in primal facilitation. This, in turn, means that this emotional wellness process can reach the people in much the same way as massage and other naturopathic modalities are reaching people.

Stone's dam analogy speaks to the importance of a controlled release of fear memories.

This was the mistake that early primal therapists made. They believed that a client's defenses should be "busted". To use Stone's analogy, they believed that the dam should be torn down in large chunks, rather than stick by stick. In this way, neurosis could be cured quickly. This was an overly optimistic idea that failed because it did not take into account the brain's need to protect the integrity or continuity of its self-awareness function.

If one continues with Stone's analogy, the importance of a slow, controlled release of trapped fear memories can be understood. Just as the total destruction of a dam would release huge amounts of water capable of eroding all that is below that dam, a "busting" of the client's defenses, which lie in front of his reservoir of fear memories, would release large amounts of energy, capable of disintegrating the client's self awareness. *Again, it must be remembered that an overwhelming flood of painful experience is what the nervous system was protecting self-awareness against originally. It's why the fear memory was created in the first place.* So, it is important that the therapeutic experience not duplicate the traumatic condition in which the fear memory was originally formed. This is referred to as re-traumatization.

Rather, a naturopathic facilitator understands the intelligence and safety inherent in the client's removal of the dam stick by stick. When sitting with a client the facilitator sees that the release of fear memories has a cycle. The anger and fear that is brought up has a beginning and an end. So does the crying. This cycle occurs spontaneously (if the client feels that it is safe to do so) and the process is controlled entirely by the client.

When 1 or 2 sticks are removed and the process cycles down, the potential energy of the water behind the dam is lowered slightly and at a rate that can be integrated. And the water that is released flows into a balanced state with the water that is below the dam.

Put another way, because there was a slow and controlled release, the environment below the dam has a chance to absorb the water release without creating damage to that environment. *Just as the newly released water is absorbed into the soil below the dam, a newly felt primal memory is absorbed safely into the entire psychic structure.* The fear memory is now connected to both hemispheres of the brain. It now has access to left hemisphere logic functions. It is no longer a right hemisphere encapsulation.

The homeostatic adjustment that was described above is termed resolution or integration. And it is a whole body/brain readjustment or balancing. It leads automatically to a decrease of neurotic tension, *which is directly proportional to the extent of the memory retrieval and integration and is objectively verifiable in the permanent normalization of vital sign activity and brain function.*

Provoking the Healing Crisis

"It is not the trauma itself that is the source of illness but the unconscious, repressed, hopeless despair over not being allowed to give expression to what one has suffered." Alice Miller (4)

To understand the process of primal therapy one must first understand how the nervous system processes experience.

"It is the limbic system, particularly the hippocampus and amygdala with their direct connections to the frontal cortex, which acts as a "gate to consciousness"“. (5)

Experience is processed, initially, through the early, feeling brain, which has been referred to as the limbic system. This is why memories are coded by feeling markers, rather than names (we were feeling beings long before we had language). This system assesses the emotional content of the experience and, in turn, feeds the information down to the reticular activating system (RAS), a part of the brainstem, and upward to the frontal cortex.

In a non-threatening situation, the information is encoded within the hippocampal memory system as a declarative memory. *Implicit in this event is the presentation of the experience to image space and, thus, consideration by the mind's eye.* The stimulus that the RAS receives activates the HPA axis and the forebrain, which orchestrates physical responses to the experience. Within the left hemisphere of the frontal cortex, this new information is collated with the totality of experience, and rational responses are initiated. *Because the experience was processed by the left frontal cortex, the experience is understood holistically, as one event among many in our lives. The experience is remembered within a time matrix.* We can, thereafter, tell a story about this experience, thereby integrating it into our lives. And, whenever the event is recalled, it will carry with it a sense of having happened in the past.

In a fear-related situation, one in which there is high stress and a feeling of having no control over the outcome, the stress hormone cortisol interferes with the hippocampal memory formation process, as well as the integrative activity of the frontal cortex. As a result of this interference, declarative memory is not encoded or, to the extent that it is, that memory is fragmented. Excessive cortisol also interferes with the frontal cortex functions of organization of experience and proper response.

“When people are frightened or aroused, the frontal areas of the brain, which analyze an experience and associate it with other knowledge, are deactivated.” (6)

In other words, the brain senses this overwhelming information as being disruptive to our higher consciousness - our "sense of self". Since it is a function of the brain to remember experience, particularly fear-related experience, the experience is shunted to, and encoded within, the primitive amygdalic memory system. This memory contains only the feelings and emotions that one had during the experience. This process effectively encapsulates the fear-related memory within the right hemisphere of the brain. Since the overwhelming experience was not properly processed by the left frontal cortex, it was never integrated into "part of our personal story". *The event was not integrated into the entire psychic structure.*

Since it is also the function of the brain to bring up memory as a way of informing present felt experience, these fear related memories are always (re) stimulating the RAS, which stimulates the HPA axis and the frontal cortex of the brain. As a result, vital functions are always being disturbed and the mind is always "racing", when, the reality of the present moment seems not to warrant this reaction. This is what may be occurring in the child who starts raging and crying for "no apparent reason". In an adult, this process might result in a scenario in which one is walking down the street and "for no reason" becomes aware of carrying on an angry argument with oneself. Blood pressure is up. Fists and jaw are clenched. Heart is beating rapidly. Etc. Yet nothing in the present is causing this (very real) reaction. This example describes the recall of a fearful amygdalic memory. And, because it was originally encapsulated from the frontal integration functions, one cannot sense that it is something that happened in the past. It feels like "now".

So, in reaction to uncontrollable fear, the brain sets up a closed loop of information processing - a "mindless" stimulus response situation: a conditioned fear response. Thereafter, any experience in the present, which has the feeling of an existing fear-related primal memory, gets the subsequent fear response projected onto it. That is: the mind automatically associates and generalizes the original experience. And, just as a parent cannot understand the "irrational" raging and crying of an infant, those who are around someone who is acting out neurotically cannot understand the "irrational" behavior. *They are the object of a conditioned fear response, just because what is being said or done in that person's presence "feels" like the original source of the fear reaction.*

It is in this sense that neurosis can be seen as a "disruption of balance between a person and his environment". Once the conditioned fear response (and its subsequent act-out) is

extinguished, one senses that the response was wrong or overly dramatic, or that it felt childish, etc. But there is still no connection made within the left frontal cortex. So it cannot be understood within a time context. It will, therefore, occur over and over again, whenever that fear memory is ignited. One sees this process at work in abusive relationships in which rage is repeatedly directed toward one's mate, followed by feelings of remorse and the unending promises that the rage will never again be repeated.

“Because the frontal cortex(....) is heavily connected to the limbic system, a good fronto-limbic connection can stop the reticular activation. That is, when a below-conscious feeling keeps us stirred up, the only way to stop that activation permanently is to make a proper connection to the subconscious feeling.”(7)

And

“It is only when feelings rise to be made frontally conscious that we can say that there is true control.”(8)

“Frontal consciousness” of fear memories is the objective of a naturopathic emotional healing process. And it begins with the kindling of a fear memory.

During facilitation, if there is conversation it is useful only if it segues into a feeling. If role playing or other modes of experiential therapy are used it is only useful if it segues into a feeling. The ignition of a fear memory, allowing oneself to feel (or re-experience) the feeling, is the goal.

Once the client is in the feeling, the process is self-activating, proceeds at its own pace, and is self-limiting. The facilitator should not interfere with this natural progression, except in ways that help the client to enrich and deepen the feeling, while keeping its expression from escalating out of the sensory window (dissociation).

In fear memory work it is important not to re-traumatize the client. This can happen if the client is overwhelmed with the content of the fear memory (just as was the case in the original, memory-generating event. And it can happen if there is no sense of safety within the therapeutic container (just as there was no sense of safety during the original event). The safest way to do this work is to feel or experience *pieces of the memory on all three levels of consciousness* within a safe and supportive container. And this titrated re-experiencing is usually all that the "governor" will allow to happen. In the aftermath of the feeling cycle there is usually a quiet period during which the client begins to integrate the feeling. Whenever a piece of traumatic memory is felt and processed, the client invariably begins to tell a story about this fragment. That is, the client is beginning to integrate this (previously encapsulated) event into a personal story. This means that the feeling made a connection to the left frontal cortex and can, thus, be woven into the fabric of the client's larger, declarative life story. If the facilitator sits quietly with the client during this time (instead of talking or explaining) the client will say something like: “I was just thinking about a time when...”, “It's funny, but I just had a memory about how nice my grandfather was to me...,” or “I was always by myself...”,

etc. It is usually easy to see how these statements are connected to what was being felt during the client's session. The client is associating the newly felt memory with others, having the same general feeling.

At this time the facilitator should be careful not to make the connection for the client, no matter how tempting that might be. The therapeutic experience is much more powerful if the client makes the connection. With that connection, the client is beginning to tell a story about a felt piece of a (previously) isolated fear memory. There is the beginning of an understanding of how that piece fits into the client's life. The felt piece of memory is experienced within a time matrix. With this connection, the neurotic healing process has begun.

Note here that the facilitator does not have to explain to the client how that piece fits. This automatic "knowing" is a deeply personal and automatic occurrence. *The mind is deeply integrative, once the dissociative process is defeated.*

According to Aletha Solter,

"The healing processes of crying and raging are noisy, messy, unpredictable, and time-consuming. They require commitment and attention from caring adults. People are often afraid of strong and painful emotions, and don't know how to deal with them other than to repress them."(9)

Solter is talking about children and their parents. But the process she is describing is also occurring within the therapeutic container, between client and facilitator.

Caretakers teach children how to repress crying and raging in some of the following ways (10):

- Telling child to stop crying
- Punishing (or threatening)
- Withdrawing love or attention, isolating child
- Distracting with talk, music, movement, games
- Putting something in child's mouth (food, pacifier)
- Teasing, shaming
- Denying or minimizing child's pain
- Praising child for not crying
- Getting child to talk or laugh

Adults, thus respond to the "inappropriate" tears and tantrums by teaching their children through fear, shame, or distraction, ways in which to repress this natural healing mechanism. Children learn these lessons well and begin to apply them in their adult emotional lives. *This complex of learned repressive techniques becomes nothing more than a complicated, ritualized way of avoiding tears and tantrums.*

In this way, the neurotic process was continued by the learning of devious, obliquely directed way in which to express fear, anger and sadness. The multitude of ways in which individuals express this cluster of learned repressive techniques is what conventional psychotherapy studies in its attempt to diagnose and categorize mental disorder. Therefore, *conventional psychotherapy is studying the varied consequences of repressive techniques, rather than studying the process, which the repressive techniques are called upon to mitigate.*

If act-outs (behavioral symptoms) are a consequence of the multi-faceted suppression of the natural impulse to cry and rage about our unresolved traumatic experiences, would not helping an adult to cry and rage about traumatic experiences eliminate the need to use these "proxy" tools? *The author believes that naturopathic emotional healing is as simple and as difficult as this.* It is simple because nature has already evolved the means for recovering from traumatic experience: spontaneous raging and crying. Human beings are born with this natural ability. And, in childhood and all throughout adult life, the body is constantly trying to initiate this natural healing cycle.

It is difficult because one is continually struggling to prevent the emergence of this healing cycle because of repressive childhood education. That is, caretaker conditioning has succeeded in unbalancing the natural healing mechanism. And it has done so with distraction, and with fear and shaming techniques, which are sociologically powerful and very difficult to overcome. Quite simply, one has been taught that, if one does something that feels good when feeling bad, the bad feeling will go away (addiction). Children have been taught to be ashamed of themselves when they cry and they have been taught that "something bad" will happen to them if they get angry. This training leads to the fear of anger and tears. *The process of primal therapy is the process of allowing oneself to unlearn this fear and shame about expressing feelings. The accomplishment of this leads to the un-self-conscious expression of anger and sadness. This, in turn, leads to the rebalancing of the natural response mechanism: the autonomic response.*

Primal therapy is experiential. One has to allow oneself to feel the feelings that are coming up, within a loving and supportive container in order to learn that these natural processes are not inherently fearful or shameful. The child does this naturally and un-self-consciously (until trained to do otherwise). If its caretakers had consistently provided this loving and supportive container each time it was needed to process a traumatic experience, those experiences would have been resolved at the time of their occurrence, rather than remembered for future reference. The pool of painful primal memories would not have formed. The adult would not be seeking facilitation, having already had it early on in life.

Abreaction Vs. Primalling

The American Psychiatric Association defines an abreaction as "an emotional release or discharge after recalling a painful experience that has been repressed because it was consciously intolerable. A therapeutic effect sometimes occurs through partial discharge

or desensitization of the painful emotions and increased insight."(11)

Janov changed the accepted meaning of this word in order to clarify what he considered to be a crucial difference between experiencing the effects of the recalled imprint in a non-healing versus a healing way. He arbitrarily redefined abreaction as reliving the imprint in a non-healing, non-integrative way.

He then defined a *primal* as the reliving of the imprint in a healing, integrative way.

Years later van der Kolk would speak of abreaction as an unmodified reliving of traumatic experience. The author thinks that both men are viewing the process of abreaction in the same way.

If one accepts abreaction as the unmodified reliving of traumatic experience, and, if neurosis is trauma based and caused by intrusion of the imprint into daily life, then all neurotic behavior can be seen as being abreaction. Within the therapeutic relationship, transference and counter-transference is also abreaction.

In fact, neurotic behavior is continuous abreaction. It is so common, in fact, that it is mistaken for normal behavior. It is seen as a part of someone's personality. "Dad always flies into a rage when no one pays attention to him. It's just the way he is." Or "Mom always gets quiet and moody, when someone tells her that she is wrong". "Joey is just being Joey" whenever he hurts people with his sarcastic remarks. Etc.

Using this definition, Janov's "primal" can now be re-defined as "the modified reliving of traumatic experience".

Some Parameters for the Facilitation of Emotional Wellness

It has been argued that all neurotic behavior is trauma based and, thus, has an imprint component that is not accessible or modifiable by reason, behavioral modification, or psychotropic medication. This means that, unless the imprint is addressed, the individual's neurotic behavior, although modifiable, will be forever driven by the force of that imprint. No matter what one does, the imprint will keep intruding into the present context, resulting in the distortion of a person's behavioral response to present sensory information. The neurotic act out will continue to occur. The integration of the imprint is the only way to resolve the root cause of the chronic condition of neurosis.

Therefore, Imprint integration, primalling, or the modified reliving of traumatic experience, is the goal of the naturopathic emotional healing of neurosis. A modified reliving dissolves the roots of neurosis in a way that an unmodified reliving, or abreaction, does not: it alters the imprint. Having said this, one needs to ask: how can relived traumatic experiences be modified? How does one *primal*?

A review of the information presented in this paper results in the formulation of some necessary parameters for successfully addressing the imprint:

1. In order to modify a conditioned fear memory, the memory must first be released. This involves the breaking down of the protein chain, which holds the memory. *Because the memory is sensorimotor in content, the released memory is the sympathetic response itself, along with its emotional content.* In other words, the client can't just talk about the anger, fear, and sadness. Rather, the emotional/sensorimotor component must emerge. Once the protein vehicle is broken down - once the sympathetic response is ignited- the memory then becomes modifiable by subsequent experience.
2. The nervous system automatically dissociates overwhelming and uncontrollable experience. It will likewise dissociate the recollection of such an experience, if it is recalled in the same intensity. Therefore, the released fear memory must be kept from escalating to such a degree that it is dissociated once again.
3. If the relived experience can be kept within a "sensory window", then the memory data will present itself to image space and thus, will be reflected upon by the mind's eye, just as ordinary experience enters image space and is reflected upon. This results in connection. With connection, the encapsulated fear memory gains access to left frontal brain hemisphere functions such as time contexting. Connection results in the integration of the fear memory into the entire psychic structure. Subsequent reliving of the memory is accompanied by the felt sense that it happened in the past. Connection, thus, destroys the continuity of the conditioned neurotic response.
4. If the above steps are accomplished, the client's reliving experience occurs in a controlled way and within a supportive context: two things that did not occur during the original experience. If the client and facilitator feel comfortable with one another, the client can feel the feeling and the facilitator can support the experience in a loving, attentive way. The model, therefore, for the ideal facilitative container should be that of the attachment ordered mother/child relationship.
5. After connection occurs, the facilitator attends to the client's spoken insights about the experience. The emergence of insights after a session is a good indication that a connected feeling occurred. In recognition of the fact that the relived memory is now modifiable, and will continue to be for another six hours, the facilitator loads the end of the session with as much positive reinforcement to the client as is possible. And the client is advised to make the next six hours as constructive and upbeat as possible. The idea is to saturate the modifiable fear memory with as much new positive sensory experience as is possible. As the six hour window closes and the memory is once again embodied in protein for long term storage, it will contain elements of positive experiential data that it did not previously possess. The client will have re-stored a "lighter", as well as a positively altered, fear memory. And, any successive retrieval of the memory will be informed by the logic functions of the brain. Any future re-emergence of the imprinted data will now be sensed as having taken place at another place and time. It is not happening now.

6. The “coming to know” that accrues to primalled material is not conceptual in nature. The brain is incapable of making coherent declarative memories during trauma. Therefore, a relived fear memory cannot be declarative in nature. Knowing occurs when implicit data is brought into image space for reflection. *The mental imaging of fear memory data is sensorimotor in nature.* Bringing this kind of data into image space results in a reflection upon non-visual sensorimotor data. One comes to know about previously dissociated fear memory content in much the same way that it is known what position in space one currently occupies, without having to actually look at oneself in that position. That is, there is a reflection upon the non-visual, sensorimotor image, which is created by the flow of data, which is a result of the body’s sensory input to the brain. The brain uses this sensory input (which has heretofore been stored in memory) to assemble a non-visual mental image of one’s original experience, which the mind’s eye observes and, thereby, understands. Somehow, this event results in the connection of dissociated fear data with left hemisphere function and, consequently, with the complete psychic structure. The imprint is no longer an encapsulation.

The cellular knowing that occurs with a primal can make a huge behavioral difference. *It gives one some degree of choice in subsequent triggered reactions.* And, this degree of choice is broadened and deepened in direct proportion to the depth of the sensory re-experiencing.

Other Environmental Factors In Neurosis

This thesis concerned itself with the endogenous toxification of the nervous system and its relationship to neurosis. The continual repression of normal sympathetic/parasympathetic responses is, in effect self-toxification.

A naturopathic approach to emotional healing also needs to consider the larger problem of exogenous toxification of the nervous system.

While this subject was too broad to be explored here, there are two general and fundamental areas of enquiry that were studied: the pollution of our food chain with excitotoxic flavor enhancers, which comes as a natural consequence of the movement away from consumption of whole foods to the consumption of processed foods; and the stress inducing effect of chronic dehydration.

One of the cornerstone beliefs in the natural health field is that one should eat only whole foods. Instead, most of what is eaten today has been processed: packaged, canned, and frozen. All of these foods must have flavor enhancers added to them. This makes them taste better, even though they are stored for very long periods of time.

These flavor enhancers are called glutamates. Glutamates are naturally occurring amino acids. And the body uses very low levels of these amino acids in the brain as a neurotransmitter. Glutamate is the most important neurotransmitter in the hypothalamus.

There are several brain structures that are particularly vulnerable to the flow of environmental materials through the brain. These organs, collectively, are called the circumventricular organs. The most important structure, for our discussion, is the hypothalamus. It is the “controlling center for all neuroendocrine regulation, sleep wake cycles, emotional control, caloric intake regulation, immune system regulation and regulation of the autonomic nervous system. In short, the function of the hypothalamus has a profound effect on our behavior.” (12)

These structures are particularly vulnerable to the influence of environmental toxins because they lack a blood-brain barrier. This barrier is a tightly knitted protective membrane that has evolved around most of the rest of the brain, which filter out harmful environmental toxins. The brain lacks a lymphatic drainage system and thus must be protected from environmental toxins in a different way.

The reason why the hypothalamus lacks this barrier is because it must be able to sense the true environmental condition of the blood from moment to moment, in order to initiate compensatory body responses to constantly changing environmental conditions. In order to do this, the cerebral fluid makeup (whose source is blood) must closely resemble that of blood.

As was stated prior to this, the hypothalamus uses glutamate in very low levels as a neurotransmitter.

“...glutamate, as a neurotransmitter, exists in the extra cellular fluid only in very, very small concentrations - no more than 8 to 12uM. When the concentration of this transmitter rises above this level the neurons begin to fire abnormally. At higher concentrations, the cells undergo a specialized process of delayed cell death known as excitotoxicity, that is, they are excited to death.” (13)

Blaylock concludes that the “...careful regulation of blood levels of glutamate is very important, since high blood concentrations of glutamate would be expected to increase hypothalamic levels as well”. (14)

It is his belief that the massive flooding of our food chain with neurotoxic flavor enhancers is playing a critical role in the development of neuropsychiatric disorders, learning disorders in children, episodic violence, and many neuro-degenerative conditions, such as multiple sclerosis.

Any process of naturopathic emotional healing would, thus, be augmented by a return to a diet of whole food.

As was stated earlier in this paper, the trillions of cells that go into the makeup of the individual are afloat in a nutrient rich sea. In a very real sense, the presence of and quality of the water in that sea, determines the quality of our existence.

The human body has a built in water management program. Whenever the body experiences dehydration, a conservation program is initiated, whereby water is taken from less essential parts of the body and shunted to the more vital organs. This condition of dehydration is extremely stressful to the body. Batmanghelidj (15) thinks that chronic dehydration lies at the base of most human chronic disease.

In stress, the body initiates its “fight or flight” mode. The physical effects of this mode on the body are exactly as if the body was being physically threatened. Again, the body cannot distinguish between physical threat and emotional threat. Once the threat is dispatched, the body can release itself from this mode. In the case of chronic emotional stress and chronic dehydration, the body stays in the “fight or flight” mode. The physical effects of staying in this mode are detrimental to the welfare of the body, since the body is essentially feeding off of itself in its efforts to mobilize for a physical, threatening encounter, which never materializes. In other words, it is chronic stress, which is harmful to us not stress, per se.

With severe dehydration, even the brain is not getting its ration of water. When the brain starts to dehydrate, cellular energy generation is diminished, setting the stage for chronic fatigue syndrome.

Additionally, a study of waterborne heavy metals and pesticides, which are extremely neuro-toxic, is of extreme importance to any discussion of sound emotional health.

A naturopathic emotional healing facilitator should, thus, teach about the importance of returning to a whole food diet and the adequate consumption of properly filtered water as a way of supporting the emotional healing process.

Finally, since the emotional healing process is supported by physical structure, which, in turn is dependent upon adequate nutrition and detoxification, a broad scope of natural health modalities can be applied to the support of the primal facilitation process. It is logical to conclude that good emotional health can be supported by all natural health modalities.

ENDNOTES
CHAPTER # 3

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Chapter 4

CONCLUSION

Primal Facilitation Is A Naturopathic Modality

Using the principles of naturopathy as a framework, the author explored primal facilitation as a naturopathic practice:

1. *There is a powerful healing power in nature, which can be witnessed in the observation of its natural processes. The body has considerable power to heal itself, and the role of the naturopath is to facilitate this natural process with the aid of natural, non-toxic modalities.*

According to Solter's reasoning, children who have experienced traumatic feelings (and who were not allowed to process these feelings) may bring these feelings up later on in the form of unexplainable anger and crying. According to her, this is the body trying to resolve the original traumatic event. As one gets older and fully internalizes the learned processes whereby feelings are kept at bay, it becomes harder and harder to resolve the traumas because of the thickness of defenses that have to be worked through.

Primal facilitation can be thought of as a strongly intentioned attempt to unlearn these defense mechanisms so that this automatic healing cycle can again spontaneously present itself. This time, there is an understanding "witness" present who is able to comfortably listen to the full expression of the anger and sadness. Someone is present who is able to allow the full extent of the anger and crying to occur. The naturopathic emotional healing facilitator understands that a natural emotional healing process is being observed. This natural process is supported by creating a safe environment in which it can occur and by gently nudging the client away from the many defenses that are habitually used to stop the emergence of the feeling. As the client continually sits in this environment it is discovered that it is OK to let feelings out. The many ways (that were previously hidden) in which the client tries to move away from feeling the feelings are discovered. The facilitator is a midwife, who understands the value of sitting in service of the client's natural healing process. There is also the awareness of Hahnemann's belief that "a person's inherent healing powers were so strong that only a small stimulus is needed to begin the healing process". And that, "once the healing process begins, it is best to do nothing more but let the process continue in its own way".

2. *Treat the cause rather than the effect.*

Naturopaths seek the underlying cause of a disease rather than simply suppressing the symptoms. They avoid suppression of the natural healing wisdom of the body, such as fever and inflammation. Symptoms are viewed as expressions of the body's natural

attempt to heal, while the causes can spring from the physical, mental, emotional, and spiritual levels.

This is the area of least understanding between conventional and naturopathic medicine.

The naturopathic emotional healing facilitator knows that, by working with repressed fear memories, the client is being helped to eradicate the cause of the emotional, behavioral, and stress related problems. The symptoms of this repressed memory are the individual's neurotic act outs. It is understood that the spontaneous expression of the client's highly charged feelings and the subsequent deep crying afterward are an expression of the nervous system's natural attempt to heal itself from previously unprocessed trauma. Therefore, nothing is done to distract the client from the full expression of this cycle, once it begins. *The behavioral symptoms are not suppressed.* The environment in which conventional therapy operates mitigates against this process in several ways. First of all, it usually takes 45 minutes for a newer client to get to the point of entry of this healing process. This is usually the time in which the therapist reminds the client that the session has ended. The healing process is, therefore, always being stopped, just as it is about to begin. Secondly, the therapy usually takes place in an office full of breakable items, which abuts other offices having paper thin walls. In this setting, if a person starts getting into a feeling and gets too loud or too physically active, both client and the therapist become self-conscious and begin moving away from the feeling. Again, the healing process is stopped, just as it is getting started. This type of environment allows for quietly expressed anger and sobbing, and to the extent that this happens, some healing occurs. But the natural healing process is obviously terribly restricted. So the client's opportunity to heal from past trauma is terribly restricted. The access of traumatic memories requires achieving the emotional intensity in which the memory was originally formed. Why? Because the autonomic fear reaction IS the memory.

3. *First, do no harm.*

By employing the safe and effective natural modalities, naturopaths are committed to the principle of causing no harm to the client. The naturopathic emotional healing facilitator's actions are guided by a strong belief in the healing power of nature. There is a strong belief in the "wisdom of the body".

Unless there was severe attachment disorder very early in life, which precipitated severe orbito-frontal pruning (resulting in the inability to regulate emotional processing), the nervous system knows, better than any facilitator, when to release repressed feelings, at what pace this should happen, and to what extent this process can safely occur.

Therefore the facilitator will never try to "bust" a client's defenses. There is no forced attempt at getting the client to lower defenses. There is never an attempt to force the client into anger and tears. And there is never an attempt to force the client to stay with the process, if the client feels like ending the session. The client's process will naturally unfold within a safe container, *if this is what the client wants to happen.* It has a life of its own.

4. Treat the whole person.

The individual is viewed as a whole, composed of a complex interaction of physical, mental, emotional, spiritual, social, and other factors. This multifaceted approach results in a therapeutic approach in which no disease is automatically seen as incurable.

Naturopathic emotional healing is based upon the deeply spiritual belief that life is inherently good. The facilitator has a strong belief in the essential goodness of human beings. It is understood that it was the client's inability to get early needs met that is the cause of present day disturbing behavior. Had the early needs been adequately met, the client would naturally know how to give love to mate, children, and others. There would not exist a mindless, chaotic, projecting of conditioned anger and anxiety into the world. There would be an attunement with the natural spiritual feelings that are an integral part of the life experience. There would be no need to develop these universal spiritual feelings into exclusionary religious dogmas, which divide human beings from one another. There would be no excessive "pool" of rising pain. So there would be no felt need to poison the body with alcohol, drugs, excessive food consumption, and similar pain killers. The body's natural production of painkillers (such as serotonin) would not be outstripped, so there would be no need for artificial supplementation of this chemical. Had the early needs been met, there would be the freedom and energy to develop inborn nature to its fullest extent.

The primal facilitator believes that the structure of the human nervous system, with its memory systems, allows the client the opportunity to resolve the early traumas. It is believed that, because of the operation of the fear memory system, the client's fearful past continues to exist within the adult nervous system and that the "past" can be experienced in the present by re-igniting the fear memory system. That reliving will trigger the natural healing response of anger and crying. The restoration of the anger/crying cycle will integrate the fear memories, thereby terminating the body's natural detoxification process. The termination of the detoxification process means the termination of fear memory intrusion. And, the termination of fear memory intrusion means the end of the client's neurotic acting out.

5. The naturopath is a teacher.

Naturopaths are first and foremost teachers who educate, empower, and motivate the patient to assume more personal responsibility for health by adopting a healthy attitude, lifestyle, and diet.

A naturopathic facilitator cannot prescribe to his client. This is a medical doctor's function. Rather, the function of educator is thoroughly understood. It is rightly assumed that it is the client's responsibility to heal himself. This process requires knowledge of how the repressive process works and it requires hard work and intention on the client's part. The facilitator can provide knowledge of the process and can join with the client to co-create a safe container in which the client's self-healing process can unfold. The facilitator studies the various ways in which environmental toxins may disturb the smooth

function of the nervous system. So, natural diet and lifestyle changes are taught, which will support detoxification and the proper functioning of the nervous system.

6. *Prevention is the best cure.*

Naturopaths are preventive health specialists. Prevention of disease is accomplished through education and a lifestyle that supports radiant health.

Once the client processes fearful childhood experiences, once these memories become integrated into the psychic structure, once the mindless reactions to internal pain are diminished, the client is better able to feel the importance of giving love and proper care to children and others. If children get the love and care that they require, they will grow up in good emotional health. The naturopathic facilitator knows that it can take a long time to heal the damaging effects of an unloving, uncaring upbringing. It is understood, therefore, that prevention of this kind of upbringing is the only cure for neurosis.

Summary

Naturopathic Emotional Healing

1. Very stressful and uncontrollable life experiences have the potential to damage the structure of developing self-awareness.
2. The brain recognizes these events as disruptive and automatically isolates the experiences as it would any other toxic compound.
3. This is accomplished by simultaneously disabling high-order memory making and integration functions (dissociation) and encapsulating the toxic memory within the fear memory system (the amygdalic/primal memory system).
4. The encapsulated memory contains only the feeling components of the experience: the sensorimotor/emotional reaction.
5. The retrieval of fear memories (and all memories) is triggered by the feeling of present events.
6. The recalled primal memory presents itself as a physically experienced conditioned fear response. *That is, it is not experienced as a visual, time contexted event.*
7. The lack of integration of the conditioned fear response makes it seem like present events are causing the emergence of the fear memory.

8. This disconnection from left brained time matrix function makes the neurotic act-out possible.
9. Primal therapy is the intentional process of triggering these conditioned responses (primal memories) within the limits of a "sensory window", hence, in portions that are insufficient to reactivate the brain's dissociative function.
10. This enables the higher brain functions (the mind's eye) to process this information (for the first time), just as it would any non-traumatic experience.
11. This process automatically connects the encapsulated memory to left frontal hemisphere brain functions (for the very first time).
12. This connection is called integration.
13. Subsequent neurotic behavior is automatically weakened in direct proportion to the amount of primal memory integration that occurred.

Traumatic life experiences are never truly felt and processed when they occur. Instead, they become fragmented and encapsulated within the primal memory system. Thereafter, and throughout life, the trapped anger, fear, and sadness content of these memories is forever surfacing in mindless ways. And one is forever reacting to them in mindless ways. There is no conscious awareness in neurosis. To the extent that one is neurotic, there is the unconscious living of life. We cannot act with free will.

The good news is that one is given the opportunity to go back and to heal old pain each and every day. The bad news is that this opportunity is not recognized. Instead, one mindlessly uses the numbing tools that were learned. And, professional psychotherapy offers only solutions that address symptoms: behavioral modification programs and psychotropic drugs. Either way, one misses the continuous opportunity to feel and to heal.

What would happen if the opportunity to unlearn the repressive training that was handed down was presented? What would happen if one trained oneself to recognize the emergence of fearful memories, whenever they presented themselves? *What would happen if one began to recognize that each emergent and painful feeling was actually an opportunity to begin to heal that old emotional wound?* What would happen if one realized that the only thing one had to do to restore emotional wellness was to let one's real feelings out?

This is the opportunity presented by the process of primal oriented naturopathic emotional healing. The author has named this process *Fear Memory Integration*.

This represents a call to return to a natural process that was one's birthright. It represents an opportunity to restore the balance of the sympathetic/parasympathetic response to life. To the extent that this is accomplished, one can heal forever from the emotional, behavioral, and stress-related problems that are making present life and relationships painful.

The message given by Arthur Janov over thirty years ago is that there is nothing esoteric or inherently fearful about the unconscious. It is nothing more than a *collection of encapsulated, unintegrated fear memories*. He referred to this collection as a "pool of pain". Because this type of memory is not integrated, the unconscious is the harbinger of determinism. Because of one's neuroses, there is little self-control over many of the emotionally important, everyday responses to life. Jung's shadow projection is merely the projection of fear memories onto present day experiences.

Janov taught that these fear memories can be released. The "pool of pain" can be drained. And, to the extent that they can be released, the unconscious will cease to exist. *Freedom to act intelligently in the present is directly proportional to the amount of fear memory integration that can be accomplished. Free will and primal pain have an inverse relationship.*

The idea of being born "imperfect" or with "original sin" is a consequence of having been brought up in pain that was unconsciously inflicted upon us by our imperfect caregivers. We are all, each generation, imperfect caregivers.

There is no dark or shadow side. Rather, one reacts to the pain that was received in a perfectly logical way: one manifests and projects the resultant fear reaction back into the world. The individual, in effect, mirrors back upon the world, the pain, which was inflicted upon it.

Alice Miller has studied the childhoods of people whom history associates with being "evil". Each one of these people were cruelly beaten, shamed, and humiliated as children. The cruelty that they inflicted upon others as adults was driven by the fear memories of their childhood.

Healing and Curing

When Arthur Janov states that his therapy is the *cure* for neurosis, he is speaking of neurosis as though it were a medical disease and he is ascribing to primal therapy an impossible claim.

It is generally understood that a cure is a successful medical treatment in which all evidence of a disease is eradicated. Using this definition of cure and accepting the truth of his idea that neurosis is caused by the chronic intrusion of imprints that form part of a pool of imprints that accrue to all of our traumatic experiences since the 26th week of conception, we have to conclude that a cure for neurosis would entail the deconditioning of every one of these imprints. Seen in this way, it is clear that the only possible cure for neurosis would lie in the creation of a nurturing environment for the child, from conception on. And it entails the fashioning of an empathetic society, one, which unequivocally supports the expression and release of the traumatic experiences that are bound to occur in our imperfect world, at the time of their occurrence. We are a long, long way off from achieving this goal.

It is perfectly obvious to all who participate in the primal process that no one is ever *cured* from their neuroses. But most will agree that they have been healed. That is, their lives have been profoundly changed for the better by this process.

Healing is a holistic process. It may be experienced physically, emotionally, and spiritually. It is experienced as a sense of movement toward inner peace and *connectedness*. It is interesting that Janov uses the word connection to signify a primal event. To him, fluid connection between all levels of the brain is what good mental health is all about. And, the primal process can help the client move toward this goal.

The evidence presented in this paper argues strongly for the reexamination of pre and peri-natal practices. It calls for a reexamination of our casual attitude regarding the decision to have children. It calls for a reexamination of the roles and responsibilities of men and women in our society, when it comes to the decision to bear children. For instance, the evidence coming out of attachment theory research runs counter to the politically correct notion that women should, simultaneously, attempt having babies and careers, at least during the first year of the child's life. It would appear critically important to the proper emotional development of the child that the mother attend to the infant exclusively during this period. And it would seem equally important that the mother's mate strongly and unselfishly support this pair bonding. This sounds old fashioned to the 21st century ear. But an examination of the evidence is compelling.

There should also be a zero tolerance attitude in our schools toward both physical and emotional bullying.

The primal facilitation process is a powerful tool with which we can decondition the fear memories that are causing us to react improperly in the present. With proper facilitation, our neurosis can be healed, rather than just covered up.

The emotional healing process has nothing to do with understanding and implementing complex psychological theory. Therefore it is not necessary to restrict this kind of work to highly educated theorists. What is needed is the ability and desire to listen to and support one another in non-judgmental ways. It requires the ability to stay emotionally present with another human being, while that person is expressing deep and honest feelings. It is unfortunate that these skills are not taught to us. And it is even more tragic to see this lack of basic human skill, even in the world of psychotherapy.

The healing of neurosis requires the presence of loving and caring human beings. However, if we are concerned about effecting a cure for neurosis, that must come from the construction of a loving and caring environment for the child, even before it is born. Because of the existence of pain in the world, there must be much more concern about the protection of children from the consequences of this pain. Nature has evolved a mechanism for doing this. And, unfortunately, society has interfered with this natural process.

The bedrock of good emotional health is the genuine desire to welcome and to love the children that are brought into the world. Every child must be loved and wanted. And every child must be emotionally supported each and every time existential trauma occurs. Within such an environment, nature will automatically maintain sound emotional health.

Appendix

THE AUTHOR'S DOCTORAL PRACTICUM RESULTS

The author used his doctoral practicum to conduct experimental research into Janov's claim that primal therapy precipitates measurable and normalizing physical function in the client. Three men, ages 33, 37, and 41, volunteered to undergo 12 weeks, each, of primal facilitation with the author. Prior to this undertaking, the author participated in his own primal therapy at Arthur Janov's Primal Center in Venice, California, doing 3 consecutive primal intensives there over a three year period. After doing this, he underwent 300 hours of supervised facilitator training, which he incorporated into his practicum.

The research included both objective and subjective testing, prior to and after each 12 week facilitation. For the objective testing, the participants were each given 2 salivary cortisol home testing kits, which were supplied by the Great Smokies Diagnostic Laboratory, Inc. It is known that salivary hormone analysis is an extremely accurate method of stress testing. These tests required that two samples, each kit, be taken at 8AM and 12PM of the same day. In each case, these samples were taken by each of the participants, prior to the facilitation and immediately after the 12 week facilitation. All samples were sent to the company's laboratory for analysis. And reports were sent back to the author.

Cortisol and DHEA (dehydroepiandrosterone) are the body's main hormonal stress-coping mechanisms. Cortisol maintains the body's energy levels and responds to stress by precipitating catabolic action, thereby making additional energy reserves available to handle the stressful situation. This hormone also helps to maintain normal blood pressure levels. DHEA, an anabolic hormone, is known to counterbalance the damaging effects of cortisol. An imbalance of these hormones interferes with the body's ability to handle the daily stresses of life. A proper balance of these two hormones, 5:1 cortisol to DHEA, is associated with the maintenance of an optimal stress response.

Objective test results: Prior to facilitation, each of the 3 participant's cortisol and DHEA levels was determined to be skewed *outside* of the normal testing range.

After facilitation, each of the 3 participant's cortisol and DHEA levels was determined to be *within* the normal testing range.

A questionnaire was designed to test the participant's subjective evaluation of his 12 week regimen. This questionnaire was predicated upon the hypothesis that spontaneous excitatory reactions such as anxiety, paranoia, compulsive thoughts, anger, etc. were the leading indicator of fear memory intrusion: the cause of neurosis, according to Janov. The questionnaire was given to each participant prior to and after the 12 week facilitation.

Subjective test results: Each of the 3 participants reported a decrease in incidents of spontaneous excitatory activity at the end of the 12 week regimen.

Conclusion: Although the test population was statistically insignificant, the practicum results support psychologist Arthur Janov's hypothesis.

Suggestions: The results present a compelling case for repeating this experiment, using a population that is statistically significant.

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