trends in medical hypnosis. American Journal of Clinical Hypnosis, 2, 177-196.
Weitzenhoffer, A. M. (1960b). Reflections upon certain specific and current uses of the "unconscious" in clinical hypnosis. International Journal of Clinical and Experimental Hypnosis, 8, 165-177.
Weitzenhoffer, A. M. (1989). The practice of hypnotism. Volume I. New York: John Wiley and Sons, Inc.

The Creative Process in Naturalistic Ultradian Hypnotherapy

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■ *This paper explores the view that Erickson's naturalistic approach to creative problem solving and mindbody healing can be conceptualized as the utilization of the normally occurring healing processes that take place periodically throughout the day. These include circadian rhythms that take place once every twenty-four hours (such as our sleep-wake cycle) and ultradian rhythms that take place many times a day (such as our 90 minute Basic Rest-Activity cycle, our dream rhythm and our hunger cycle). In this paper we first review the background for understanding the chronobiological aspects of mindbody communication and healing. We then focus on how the classical four stages of the creative process may be facilitated with a series of "accessing questions" as a new ultradian approach to naturalistic hypnotherapy.*

How does hypnosis heal? That is the basic question that has mystified us since the origins of hypnosis in Mesmerism more than two hundred years ago. The first modern effort to integrate Milton H. Erickson's views of hypnosis with the psychophysiology of healing was undertaken by his early colleague, Bernard Gorton, who was one of the original associate editors of The American Journal of Clinical Hypnosis. The main focus of Gorton's two initial papers on "The Physiology of Hypnosis" (1957, 1958) was on how the autonomic nervous system with its two main branches, the sympathetic system (emotional arousal) and the parasympathetic system (relaxation) may be the major avenue through which therapeutic suggestion achieved its psychophysiological healing effects on the body. These two review papers that emphasized how hypnosis could be used to optimize peak performance associated with an arousal of the sympathetic branch autonomic system as well as the lows associated with the parasympathetic branch was a challenge to the then dominating but erroneous view of behaviorism that hypnosis was nothing more than relaxation. More recent research supports the essential view that there is "a positive correlation between hypnotic susceptibility and autonomic responsiveness during hypnosis..." (DeBenedittis et al., 1994, p 140) and the

nature of the "physiological responsiveness [arousal or relaxation] is dependent on the type of suggestions during hypnosis..." (Sturgis & Coe, 1990, p 205).

Gorton's review papers may be taken as a foreshadowing of our current view that hypnosis can optimize both the peaks and low phases of performance and healing associated with the natural chronobiology of virtually all our psychobiological processes that have been carefully measured over time. These include the endocrine, and immune systems as well as the autonomic nervous system. In particular, chronobiological variations have been found in memory, learning, emotions and a variety of behaviors and psychological problems and symptoms that are of essence for our work as psychotherapists.

A profound explosion of new knowledge has taken place in the fields of biology and psychosomatic medicine since Gorton's early papers. Any comprehensive theory of healing in hypnosis must now encompass the new fields of biology and medicine that deal with the molecular levels of communication between mind, brain, cell and gene (Rossi, 1986/1993; Rossi & Cheek, 1988). This is particularly true of modern neuroendocrinology and psychoimmunology where there has been a revolution of understanding of how "molecular messengers" integrate cybernetic communication between all the mind-body systems of self-regulation such as the autonomic nervous system, the endocrine system and the immune system.

To the beginner in hypnotherapy it may seem a bit daunting to even attempt to outline all the intricate facts of these highly technical areas. It is difficult to remain informed with current developments because most researchers in these specialized areas of molecular biology are so focused on the details of their field that they simply do not have the time to write general texts organizing the whole process of how mind-body healing could possibly take place. Hypnotherapists, however, are of necessity holistic in their approach to healing. They need some overall perspective for guiding and evaluating their daily work as well as pointing out new directions for clinical exploration and research. The theoretical integration of therapeutic hypnosis with the new facts of chronobiology presented in this paper proposes to do just that.

The hypothesis that a naturalistic approach to mind-body healing may be conceptualized as a means of accessing and utilizing the normal variations of psychobiological processes that take place during ultradian and circadian rhythms (Rossi, 1981, 1982, 1986a & b) originally arose from clinical observations of the way the late Milton H. Erickson used a variety of subtle behavioral signs to determine when his patients were ready to enter therapeutic hypnosis (Erickson, Rossi & Rossi, 1976). Rossi (1982) reported that Erickson's "trance readiness indicators" appeared to be identical with many of the "rest phase behaviors" of ultradian rhythms that were carefully recorded by chronobiologists (Rossi, 1986; Rossi & Lippincott, 1988). In keeping with these observations, it was intriguing to note that Erickson's hypnotherapeutic sessions, in sharp contrast to the conventional 50-minute hour of most psychotherapists, usually lasted between 90 to 120 minutes - the same periodicity of the most prominent ultradian rhythms. When this author brought the similarity between Erickson's "trance

readiness indicators" and the „rest phase behaviors" of ultradian rhythms to his attention, the 78-year-old Erickson admitted he had never heard of ultradian rhythms. It was an immediate speculation by both of us, however, that Erickson's reputation for having an uncanny knack for facilitating deep hypnosis and his therapeutic effectiveness with psychosomatic problems could be due, at least in part, to his unwitting utilization of the natural psychobiological variations of behavior that are observed in ultradian rhythms. I have called this "The Chronobiological Theory of Hypnosis" or, more specifically "The Ultradian Hypothesis of Naturalistic Hypnotherapy" (Rossi, 1982, 1986/1993).

The theoretical as well as the practical significance of this chronobiological understanding is that for the first time we can reconcile the apparently contradictory views of the fundamental nature of hypnosis by researchers over the past one hundred years. The great Russian physiologist, Ivan Pavlov, for example, believed hypnosis was a type of cerebral state of inhibition, a kind of "partial sleep" while the American learning theorist, Clark Hull, maintained the opposite view that hypnosis is a state of arousal characterized by "hypersuggestibility." Hull summarizes his pioneering research as follows: "In concluding this discussion we seem forced to the view that hypnosis is not sleep ... Thus the extreme lethargic state is not hypnosis, but true sleep: only the alert stage is hypnotic" (Hull, 1933/1986, p. 221, italics is ours).

Both of these views were evident in Milton H. Erickson's innovative methods of hypnotherapeutic induction that could utilize either the passive, relaxed and sleep-like tendencies of his patients or their more active, compulsive and even "acting out" behavior. The form of hypnotic induction Erickson chose to use on any particular occasion was a function of his patient's mood, attitudes and ongoing pattern of behavior in the therapy session. Erickson described the great variety of his induction approaches that made use of the full range of the patient's ongoing behavior as the "naturalistic" (Erickson, 1958/1980) or the "utilization" approach (Erickson, 1959/1980).

The apparent paradox that hypnosis can utilize the opposite states of passivity and activity is the most obvious foundation stone of the chronobiological theory of hypnosis. It accounts for the practical therapeutic use of hypnosis to facilitate the healing states we usually associate with rest, recovery and the parasympathetic system as well as the arousal state of the sympathetic system required for optimal performance in sports, work, study etc. The basic idea is that therapeutic suggestion conducted during the rest-rejuvenation phase of ultradian rhythms may more easily access many naturally occurring processes of mind-body healing that take place at this time. The rest-rejuvenation phase of ultradian rhythms may be a "window of opportunity" for observing and facilitating many periodic patterns of mind-body communication and healing between (1) the psychological level of experiencing (thinking, feeling, sensations, pain etc.), (2) the neuroendocrinal level and (3) the cellular-genetic level (Rossi 1986/1993, 1994a). Hypnotic suggestion during the peak arousal level of our ultradian rhythms, on the other hand, may optimize high performance behaviors in sports, work and any activity that requires a sharpened attentiveness and focus on our relationship with the outside world.

I have previously reviewed the evolution of a 15 year effort to update the implications of what Erickson called the "Psycho-Neuro-Physiological Basis of Hypnosis" with current developments in the biology of mind-body communication from the phenomenological level of psychological experience to gene expression that all manifest a natural ultradian periodicity (Rossi, 1986/1993, 1994b). A recent paper not included in these previous reviews throws a sharp focus on the potential for utilizing the alternating aspects of chronobiological rhythms in hypnotherapy (Wallace & Kokoszka, 1995). In brief these researchers first replicated previous work documenting ultradian rhythms in hypnotic susceptibility throughout the day and how these rhythms are associated with whether subjects are "Larks" (day persons who are more awake in the morning and have higher hypnotic susceptibility around 10 a.m. and 2 p.m.) or "Owls" (night persons who are more awake in the evening and have higher hypnotic susceptibility around 1 p.m. and between 6 p.m. and 9 p.m.) (Rossi & Lippincott, 1992). Their findings also support previous research documenting chronobiological rhythms in imagery (Globus, 1966, 1968; Wallace et al. 1992), thoughts (Giambra et al., 1988-89) and fantasy (Kripke & Sonnenschein, 1978). Their most original finding is that there is an apparently alternating relationship between peaks in hypnosis and imaging ability as follows: "Like hypnotic susceptibility, peak periods in imaging ability are present for both day and night persons. And these imaging peaks appear to be related to peaks in hypnotic susceptibility ... it can be said that imaging ability peaks within an hour before and after peaks in hypnotic susceptibility level. In addition, peaks in imaging ability appear to fall within possible ultradian cycles" (Wallace & Kokoszka, 1995, p 29).

Initially this apparently alternating relationship between ultradian peaks in imagery and hypnosis may seem paradoxical because it has often been assumed in clinical practice that imagery and hypnosis reinforce each other. Recent research has called this assumption into question, however. Glisky et al. (1995), for example, report, inconsistent results in studies of the correlation between hypnotizability with vividness of imagery. Individual differences in the experience of imagery and hypnotic experience are apparently so great that the hypnotherapist needs a general approach that can be tailored to the needs of each patient. The following integration of the four stages of the creative process with hypnotherapy that carefully utilizes the individual patient's ongoing experience is designed to do exactly that; as such it may be considered as an example of Erickson's naturalistic or utilization approach.

Naturalistic hypnotherapy utilizing ultradian rhythms of creativity

In figure one I have superimposed the well known four stages creative cycle: (1) Data Collection, (2) Incubation, (3) Illumination, and (4) Verification onto an idealized image of a typical 90-120 minute ultradian pattern of activity (Rossi, 1972/1985). While there are infinite variations in this pattern as we adapt to the changing circumstances of everyday life, I have previously discussed how, in general, most of our daily activity natually falls into these ultradian units of activity and rest (Rossi & Lippincott,

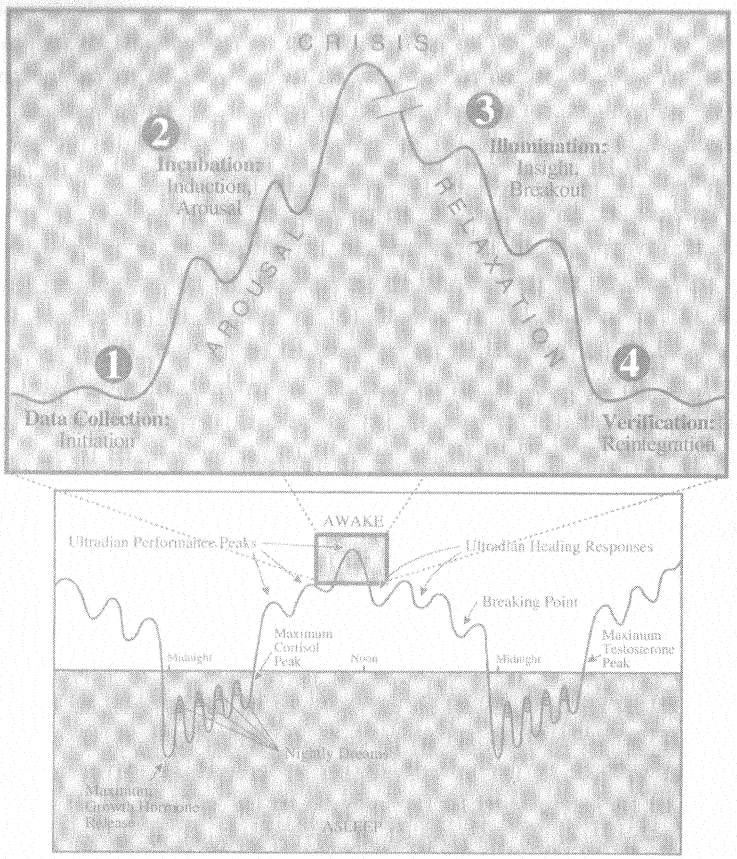

Figure One: The four stages of the creative process illustrated in the upper part of the diagram are an approximation of one idealized 90-120 minute ultradian rhythm of optimal performance and healing in therapy as well as everyday life. The role of the therapist in patient centered hypnotherapy is to "arrange the conditions" so the patient has an opportunity to recognize and learn to utilize the four stages of this creative process half a dozen or so times a day. Note from the lower diagram of a typical 24 hour day, that there are about 6 "Ultradian Performance Peaks" alternating with an equal number of "Ultradian Healing Responses" when we are awake. It is an important function of consciousrress to learn to recognize and utilize these opportunities for optimizing outer performance as well as inner hea1ing during the daytime.

1992; Rossi & Nimmons, 1991). In what follows I outline typical aspects of the patient's experience at each stage of the creative process that I have described as "The Breakout Heuristic" in psychotherapy (Rossi, 1968) together with the therapist's supportive role in the process (Rossi, 1996).

1. Initiating a creative wave of hypnotherapeutic healing

The first stage of the creative process, data collection, is well known in the arts and

sciences. The artist, for example, seeks interesting impressions of form and color, the musician hums exploratory musical themes, the mathematician reviews well known theorems that may be assembled into new discoveries etc. In psychotherapy, too, the initial stage of the creative process typically begins by reviewing the patient's issues and problems in the beginning of the therapeutic session. In this initial phase the patient may experience cognitive-emotional states ranging from the passive such as dependency, depression, inadequacy, uncertainty, hopelessness and boredom to the more active such as anger, rebellion. tension, pain and stress. The therapist's role is to help the patient identify and focus on the essential issues that are dynamically pressing for expression and resolution here and now. The therapist does this most simply by asking a series of focusing and accessing questions (Erickson, Rossi & Rossi, 1976) such as the following: "What is the most important problem right now? What are you experiencing right now? What is going on within you at this moment? When was the last time you felt this way? When did you experience this the first time?"

These questions have the cumulative effect of focusing the patient inward, arousing curiosity, emotions and an exploratory attitude for problem solving. The therapist adopts an attitude of supportive inquiry that will help the patient move closer to the edge of creative flux, uncertainty and chaos at the edge of a newly emerging order (Waldrop, 1992), a transitional state that initiates a creative wave of change from the old to the new. Notice that the last two questions involve something more than a simple review of the patient's problem; they evoke something more than mere talk and history taking to satisfy the therapist's curiosity. When a patient takes such questions seriously they often have genuine mindbody dynamical consequences: they tend to evoke the emotional state dependent memory, learning and behavioral systems that the patients experienced when they first had their emotional problem. Such questions evoke what Watkins has called "The Affect Bridge" (Rossi, 1986/1993).

Erickson believed that in order for a patient to solve a problem it must be experienced "live, here and now" in the therapy session. Many of Erickson's indirect approaches were designed to bypass resistance in accessing the emotional sources of problems during stress and trauma (Erickson & Rossi, 1979). Something more than a "talking cure" on the cognitive level is involved in his naturalistic hypnotherapy; evoking the state dependent memories that originally encoded the patient's problem is the most effective approach facilitating the second stage of incubation and arousal in preparation for problem solving.

2. *Supporting incubation and arousal: private and public creative states*

When the therapist notices the minimal cues of the patient's genuine emotional involvement in exploring an issue the second phase of the creative cycle, incubation, inner search and usually arousal, becoming manifest. These minimal cues usually involve multiple aspects of sympathetic system arousal: an increase in heart rate and breathing, sweating, feeling warm, hot and excited, blushing or blanching etc. One of Erickson's

students, David Cheek, notes that all genuine finger-signaling is preceded by such mindbody signals of arousal (Rossi & Cheek, 1988). Such mindbody arousal becomes an important criterion for detecting the difference between the genuine accessing of long forgotten memories in post traumatic stress syndromes and faking for secondary gains. When the therapist notes these minimal cues of arousal they can be supported with another set of accessing questions and phrases such as these: "Can you let yourself continue to experience that for another moment or two - in a private manner- only long enough to experience what it leads to? Good, can you stay with that only long enough to learn what it is all about? The courage to let that continue until you really receive what you need to know? Will it be okay to allow yourself to continue experiencing that privately for a while? And will it be all right to keep most of that a secret that you don't have to share with anyone?"

Allowing the patient to explore privately is one of the major innovations that I have explored recently. A private and even "secret" inner review by the patient is most effective approach to reducing the so-called "resistance." It greatly enhances the patient's ability to access inner issues without having to be concerned about how to verbalize them for the therapist. This allows the personal material to remain closer to emotions, imagery and sensations in ways that cannot be easily verbalized. Patients are able to remain within their own unique creative matrix to solve their own problems in their own way. Patients feel empowered to do their own problem solving; the locus of control remains within the patient rather than the therapist. Allowing patients to work privately is a constant reminder to the therapist to give up the hybris of presuming to interpret and even prescribe the destiny of another.

A surprising aspect of allowing patients the choice of working privately within themselves is the degree to which their personal creativity is optimized. In private practice as well as in teaching demonstrations before large audiences of professionals it is common to witness some patients going through several or even all four stages of the creative process without requesting any help from the therapist. The ability of a variety of patients to do satisfactory private, self guided hypnotherapeutic inner work all by themselves in the presence of the therapist has now been well documented in a series of pilot studies (Rossi & Lippincott, 1992). As ultradian theory would predict they remain in their inner work for about fifteen to twenty minutes although there is a wide range from five minutes to about an hour. We unexpectedly found that good hypnotic subjects, those who score high on standardized hypnotic susceptibility tests, tend to remain in trance for a shorter period of about five minutes. This was the opposite of what we had initially predicted: we thought that good hypnotic subjects would enjoy their self-guided inner work and would stay in trance longer. With hindsight, however, we now realize that the data does make sense. Since good hypnotic subjects are by definition better at inner focusing, it makes sense that they would be better - more skilled - at resolving their self-selected inner problem in a shorter period of time.

Most patients behave as if they are rapt in deep concentration on an inner problem:

their eyes are usually closed and occasionally go through bursts of minimal vibratory movements similar to that described as rapid movement during dreaming (REM sleep); their facial features are often expressive of a wide range of emotions; their bodies frequently go through symbolic gestures such as clenched fists, cringing or expansive movements of the head or whole body expressive of breaking out and fighting to be free of burdens they are carrying. The end of their inner work is often signaled by apparently autonomous and involuntary head nodding "yes" as if they are satisfied with their accomplishment. At this time they frequently "awaken from trance" entirely on their own with no apparent cues or prompting by the therapist. They then respond to the therapist's look of inquiry by giving a spontaneous account of some aspects of their inner experience that they remember and value as a solution to the problem or symptom they were dealing with.

Sometimes such patients will give detailed accounts of their private inner journey as being filled with emotions, imagery, metaphor that are obviously related to symbolic or vicarious problem solving. It is surprising to learn how well patients talk to themselves during their inner process. They will often question themselves about delicate and crucial issues very much as a therapist would. Yet it is more than just "self talk" in the sense of attempting to give themselves "ego support" and the usual self-directives they give themselves in ordinary everyday life. This is indicated by the fact that patients are frequently surprised by the apparently spontaneous aspect of their imagery and unexpected twists and turns of the plot of their inner psychodrama. It is precisely this sense of wonder and surprise about the unexpected aspects of their private inner experience that distinguishes it as "creative."

Other patients express quandary and attitudes of being mystified about their inner experience. They may not remember much of what happened even though they have a definite and deep sense that "something important did happen." Phobic and anxious patients typically will report that "it's all right now" at the end of a period of intense private inner work. They apparently feel free of their fears without knowing why. Depressed patients will have a sense of well being without knowing why or how long it will last. Symptoms seem to disappear or are greatly ameliorated. This is well documented when the therapist uses Symptom Scaling (Rossi. 1986/1993). The therapist asks the patient to score the intensity of their experience of the symptom on a subjective scale from one to one hundred just before they begin their inner healing and again when they emerge from trance (Rossi 1986/1993). Invariably patients will report that the intensity of their symptom is less after their inner healing work even when it seems to be entirely self-guided and the patient does not have any rational explanation of how it happened.

Erickson would wink impishly at the author when a patient manifested such therapeutic benefits without knowing why. Erickson often would acknowledge that he did not know why the patient reported such improvement either. It would be a truism to describe such benefits as merely a temporary placebo response. This is an inadequate

answer, however, because the therapeutic benefits are often long lasting (this still remains to be well documented statistically). Further, we need to know just what a placebo response is. The chronobiological theory of hypnotherapy proposes that all so-called "placebo responses" are genuine forms of healing of the type that take place naturally on all levels from the psychological and neuroendocrinal levels to the cellular-genetic during the many different phases of ultradian and circadian rhythms (Lloyd & Rossi, 1992). I strongly believe that research exploring these hidden processes of creativity and healing that apparently take place autonomously on an "unconscious level" is the essence, the leading edge of any depth psychology of the future.

Sometimes, however, it is very important for the patient to talk about what they are experiencing when they are engaged within. This is most apparent when they frown, shed tears and express storms of anger or negative affect during the second or arousal phase of the creative process. The therapist can support these active states when it is important for the patient to review the negative with a question such as: "*And can you occasionally share a sentence or two with me - only what I need to hear to help you further?*"

Notice how this question sharply focuses the patient's dynamics to express only what is exactly needed to get precisely the help that is required from the therapist. Sometimes patients express such powerfully cathartic emotions that the therapist fears that the patient will get out of control or may simply relive a past traumatic experience without any therapeutic change. The Therapeutic Dissociation is an important tool to use if the patient seems to be getting out of control or is caught in a vicious cycle of affect without any apparent resolution. While such lack of control has never led to deleterious consequences in over thirty years of private practice and professional demonstrations by the author, it is still the greatest fear of students when they first encounter an unexpected emotional catharsis when potent state dependent emotional systems have been accessed. The therapeutic dissociation simply facilitates two or more simultaneous states within the patient that modulate each other in a safe way; the patient experiences multiple levels of consciousness and being simultaneously (Erickson & Rossi, 1979) in a kind of inner psychodrama. Here are a few examples of the therapeutic dissociation: "*One part of you experiencing as fully as you need to while another part of you watches safely on the sidelines. That's right, really continue experiencing that as powerfully as is necessary while a wise healer within you guides your experience in a safe way. Continuing to experience those tears [or whatever] as intensely as some part of you wants to while another part of you observes calmly and learns what it needs to help you.*"

There are also many wrong ways of attempting to facilitate the therapeutic dissociation. One very common error is to ask: "Do you need help?" Well, of course the patient needs help, who doesn't! But this kind of an open ended offer to help tends to stop the patient's personal process; it shifts the patients' attention from their own experience to the therapist. Patients tend to immediately turn off their uncomfortable state of arousal in hopes that the therapist will have an easier solution. Much so-called "resi-

stance" are efforts by patients to get the therapist to do the therapy rather than the patient doing an honest bit of inner work themselves. The open ended offer to help tends to shifts the locus of control and healing to the therapist instead of allowing it to continue cooking within the patient where the healing really needs to take place. It implies that the patient is weak and must fall back on the therapist's skill rather than the patient continuing to explore his/her own inner resources for creative problem solving.

On the other hand, if the patient directly asks for help the therapist should immediately provide the requested help. Now the only question is, how should the therapist provide help? What can any therapist really know about what is going on in the patient on so many levels simultaneously from imagery, emotion and thinking all the way down to the hormonal and genetic levels? With six trillion cells in the human body, each with hundreds of thousands of receptors on their surfaces mediating one form of communication or another, who is the therapist who feels wise enough to take control and direct? What can the therapist do? The therapist can wisely respond to the request for help by helping the patient focus the problem area more specifically with something like the following: "*Yes, I really want to help you, so let yourself continue with those feelings for another moment or two until you find yourself expressing a sentence or two - only what I need to hear to help you further.*"

Notice how much is being accomplished with this seemingly simple statement. (1) The therapist is immediately responding positively and supportively to the patient's request. (2) The therapist is reinforcing the patient's ongoing experience but with a safe time limitation. (3) There is a mild therapeutic dissociation implied in the words "let yourself continue with those feelings." If you "let yourself" that implies there is another stronger part of you that is allowing your crying side, for example, to express itself. Since you are "letting yourself" it means that you are no longer lost in your emotions, you are essentially in control and allowing yourself to experience a good healthy cry or whatever. (4) The therapist is permissively and indirectly asking the patient to do a major piece of therapeutic work: "find yourself sharing a sentence or two" that will sum up the essence of the patient's entire inner situation. (5) This gives the therapist the exact information required to provide precisely the help the patient needs. Suppose the patient says something like: "I feel blocked just like I have all my life when I feel hopeless about my feeling. Can't you help me break through this block?"

Of course the therapist wants to respond positively to this call for help, but what therapist does not feel instant despair about trying to help a patient break through a lifetime block all within the limits of a fifty minute hour? The well trained therapist can respond once again with the "affect bridge": "*Yes, I can really help you break through that block by asking you to first go back to another time in your life when you had these kinds of feelings.*"

In this way the therapist guides the patient backward in time, step by step, on this affect bridge so the patient can re-experience the statebound "stuck places" in his/her emotional life with an opportunity to heal his/her stress and trauma within the safe con-

text of therapy. This further fuels the arousal phase and prepares the patient to move on to the next and most important part of the entire process: The breakthrough to an important illumination or insight!

3. Breakthrough, insight and therapeutic reframing

The peak of ultradian arousal in figure one could be described as a kind of the "Crisis." This is the highest point of tension in the entire process; it is usually the period of most expressive catharsis with a variety of actively vocalized emotions with anger, tears, facial, hand and bodily movements symbolic of the stress and trauma that the patient is reexperiencing as they access their statebound memories and traumatic life experiences. As can be seen in figure one, I place the moment of emotional breakthrough and insight characteristic of stage three of the creative process a little bit past the peak of emotional crisis. This is simply an empirical observation from practical clinical experience both in private practice and in teaching demonstrations in front of audiences of professionals. I have previously described this transition from emotional crisis to insight as the typical shift we frequently witness from tension to relaxation in hypnotherapy (Rossi, 1990, p. 457).

"The most vivid demonstration of how informational substances produced by many neurons - often called 'neuropeptides' - may be involved in psychotherapy in general and Ericksonian hypnotherapy in particular, is in the so-called catharsis reactions. You will recall that catharsis, the dramatic emotional release of suppressed and usually traumatic state dependent memories of significant life events, was regarded by the early Freud as the most significant turning point in his 'talking cure.' Most classical forms of psychotherapy from the rituals of native healers and shaman to modern encounter groups and psychoanalysis usually involve two stages: (1) an initial stage of sympathetic systems arousal with elevated heart rate, respiration, sweating, shouting, and tears that is typical of the emotional catharsis phase that can last from a few minutes to hours but usually requires around 20 or 30 minutes; (2) a relaxation phase then follows with feelings of comfort and gratitude for the new insights received and the emotional blocks worked through.

The initial catharsis phase can be so alarming that even audiences of professional psychotherapists who have observed my work have been concerned lest the patient somehow incurs serious or permanent emotional harm rather than therapy. Yet the patient invariably experiences the second phase of emotional insight, comfort, and well-being. Although a great deal of professional skill is in fact required to facilitate such a satisfactory therapeutic outcome, my personal sense of confidence is supported by what I presume to be one of mother nature's laws: The Neuropeptide Hypothesis of Consciousness and Catharsis - The arousal and relaxation phases of cathartic psychotherapy and emotional insight are mediated by the release of ACTH and B-endorphin from their mother molecule, POMC (proopiomelanocortin), via the basic process of mind-body information transduction in the limbic-hypothalamic pituitary system" (Rossi 1990, p. 457).

Research is now needed to document that the state dependent encoding and releasing of messenger molecules of the stress system (ACTH, cortisol, epinephrine etc.) are in fact peaking in the blood stream during these moments of emotional crisis just as they are to a milder degree during our normal ultradian peaks of activity every 90-120 minute or so throughout the day. We would predict that these peaks in emotional arousal will be followed by peaks in B-endorphin about 20 minutes later to mediate the

phase of relaxation just as they are in our normal ultradian rest periods in everyday life. Freeman (1995) has recently outlined many other neuromodulators that I would hypnothesize are active in the state-dependent affects, moods, memories and behaviors of different phases of the breakout heuristic. Among the most interesting that he mentions that I would recommend for future psychobiological monitoring of psychotherapy are: acetylcholine for memory; dopamine for hedonism; melatonin as circadian clock; norepinephrine for imprinting; oxytocin for orgasm and unlearning; serotonin for relaxation; vasopressin for aggression. Of course, these are only very approximate associations between neuromodulators and psychological processes that may be involved in the breakout heuristic as it is experienced in the form of therapy described here.

Patients are frequently so preoccupied with their emotional experiences that they often do not even recognize it when they are receiving an important insight. The alert therapist now has the important task of recognizing what these important insights may be by asking a series of accessing questions such as these with a tone of wonder: "Can you repeat that? Yes, can you say more about that? How much of this is new to you? What is most significant about this for you? Have you ever understood this before? What does this lead you to now?"

It is important to emphasis that these questions are not simply cognitively oriented, fact-gathering queries. The essence, purpose and goal of the entire therapeutic enterprise is now at hand! The sense of curiosity, wonder, interest and even surprise in the therapist's voice are potentially powerful indirect cues to the patient that something of therapeutic significance may now be coming forth. The therapist's vocal cues are designed to further the patient's dynamical process of focused arousal, breakthrough insights and a heightening of consciousness. Clinical experience suggests that the mind-bodies natural biochemistry of messenger molecules during this important period, has the potential of giving the patient a better "high" than most psychedelic drugs. In fact, I would hypothesize that this type of creative "high" is what most people are looking for when they self-administer illegal drugs even though they don't know it. I have discussed these relations between the creative process, arousal, messenger molecules and the addictions previously (Rossi, 1972/1986; 1986/1993; Rossi & Nimmons, 1991).

There are many spontaneous and emotionally gratifying characteristics of this breakthrough phase of the creative process that may even serve to "validate" the value of the insights that are being received. Patients may experience an obvious sense of surprise with laughter and relief as the previous pain, tension, anxiety and uncertainty suddenly give way with the recognition of the value of the new insights they are receiving. They may involuntarily nod their head yes continuously for a while as further insights and implications continue to pop into their mind.

Patients sometimes remark how "odd, strange, weird, unreal or bizarre" they feel during this experience of creative flux. I have previously described this expansion of awareness as follows: "A sense of unreality implies that a radical shift has taken place in one's phenomenal field due to the emergence of the new which is not yet integrated"

(Rossi, 1972/1986, p 109). The seeming unreality of the newly emerging insights is an important indication that the therapy process is not finished yet. The final stage of integrating and working through is necessary to make the new insight "real" in the sense that the patient recognizes how it can become a new cornerstone for their life; a new way of reframing and understanding their past, present and even their future life experience. Indeed, that is now the most important question: What changes are now needed in their thinking, attitudes and behavior to make their new insights into a therapeutic change in real life?

4. Verification and reintegration: ratifying the reality of the new

When the patient's natural growth process is given free reign the therapist is not aways certain how or when the creative process will resolve itself. The fourth and final stage of the creative process that ideally takes up the last phase of the therapy session is not always as smooth as one would like. As illustrated in figure one there may be more than one mini-peak and relaxation period within the general flow of the entire therapy session. A fresh flow of anger or tears may follow from the initial and on-going flow of insights so that the therapist is sometimes at a loss to know when the therapy session is over for now. Of course, the inner process of psychological growth is continuous throughout one's life. Indeed, ultradian theory proposes that every 90 minutes or so throughout the day and night one is going through a creative cycle although most of us do not recognize it. Most of us do not give credit to the housewife, for example, who must experience a series of genuine if quiet and unheralded creative performances throughout the day that usually take an hour or two: how to awaken the family, get them a good breakfast and off to school and work in a optimal mood; planning and executing the morning's housework most effectively; going on a shopping trip most economically; planning dinner and home activities for the reassembled family at the end of the day (Rossi & Nimmons, 1991).

Most patients need some guidance on how they can use their new insights and optimize the possibility that their developing awareness and psychological growth will be actualized in their everyday world. How will they behave differently so that others in their social milieu will appreciate and support their therapeutic change. Many challenges for both the patient and therapist here! Here are some of the accessing questions that are most useful at this stage: "What will you do to hold onto these new insights? What changes will these new insights make in your real life? What will you actually do in everyday life that is different now? What changes will you make within the next few days? How will you help others in your life accept these changes? How will this therapeutic process continue in the future?"

I often find that it is important to remind patients about their natural 90-120 ultradian rhythm of performance and healing throughout the day. Here are some important discussion questions: "How will you plan your daily schedule so that you will be able to optimize your performance peaks as well as your natural healing rest and rejuvena-

tion periods? Will some of your ultradian rest periods be used as the natural time for self-hypnosis to reinforce your therapeutic progress?"

It is sometimes difficult for patients to realize that those periods throughout the day when they usually felt they were tired or failing are precisely the periods that are optimal for healing and rejuvenating self-hypnosis. I attempt to reframe their so-called "failure" periods into what Erickson called "The Common Everyday Trance" or what I now call "The Ultradian Healing Response" (Rossi & Nimmons, 1991). People experience themselves to be temporarily failing in outer world performance precisely because their mindbody is calling them to a much needed period of inner healing and rejuvenation! The mindbody needs to use its natural ultradian rest period to recover from the past hour and a half of work in preparation for the next hour and a half.

The reward of learning to recognize their natural mindbody signals that they are entering an ultradian rest period (e.g. starting to make errors, momentary memory failure, irritation with distractions or new demands, feeling a need to take a break, yawning, stretching. feeling hungry for a snack or a drink, needing to urinate) is that people do not have to fall so deeply into stress that tension, pain and their psychosomatic problems are triggered. Indeed, it is a major insight for most patients to realize the periodic nature of most of their psychosomatic problems: virtually all mindbody stress symptoms are actually signals of the need to take an ultradian healing break. I speculate that many habit problems (nail biting, tics etc.) as well as addictions (overeating, smoking, alcohol, caffeine etc.) are actually mindbody signals of a build up of unnecessary tension that needs to be relieved with an ultradian rest. This is an area for future research.

Summary

This overview of the classical four stages of the creative process in ultradian hypnotherapy summarizes a number of innovative approaches to facilitating problem solving and healing with appropriate accessing questions. Perhaps the most surprising finding with these approaches is the support they provide for Milton H. Erickson's demonstrations of the degree to which many patients can resolve their own problems in their own way. The fact that many of these patients do not have any cognitive understanding of how their problems have been solved and symptoms ameliorated suggests that the accessing questions may be facilitating the essence of the creative process and mindbody healing on "unconscious levels." Further research in this area may provide insights into the fundamental nature of the so-called "placebo response" as well as the chronobiological foundations of mindbody healing and hypnotherapy.

References

DeBenedittis, G., Cigada, M., Bianchi, A., Signorini, M., & Cerutti, S. (1994). Autonomic changes during hypnosis: A heart rate variability power spectrum analysis as a marker of sympatho-vagal balance. Internatonal Journal of Clinical and Experimental Hypnosis, 42, 140-152.

Erickson, M. H. (1958/1980). Naturalistic techniques of hypnosis. In E. L. Rossi (Ed.), The Collected Papers of Milton H. Erickson on Hypnosis. I. The Nature of Hypnosis and Suggestion (pp. 168-176). New York: Irvington.

Erickson, M. H. (1959/1980). Further clinical techniques of hypnosis: Utilization techniques. In E. L. Rossi (Ed.). The Collected Papers of Milton H. Erickson on Hypnosis. I. The Nature of Hypnosis and Suggestion (pp. 177-205). New York: Irvington.

Erickson, M. H., Rossi, E. L., & Rossi, S. (1976). Hypnotic Realities. New York: Irvington.

Erickson, M. H., & Rossi, E. L. (1979). Hypnotherapy: An Exploratory Casebook. New York: Irvington.

Freeman, W. (1995). Societies of brains. New York: Lawrence Erlbaum.

Giambra, L., Kasper, S., Yee, W. & Slack, D. (1988-89). A circadian rhythm in the frequency of spontaneous task-unrelated images and thoughts. Imagination, Cognition and Personality. 8(3), 309-314.

Glisky, M., Tataryn, D. & Kihlstrom, J. (1995). Hypnotizability and mental imagery. The International Journal of Clinical and Experimental Hypnosis. 43, 1, 34-54.

Globus, G. (1966). Rapid eye movement cycle in real time. Archives of General Psychophysiology, 15, 654-669.

Globus, G. (1968). Observations on sub-circadian rhythms. Psychophysiology, 4, 366.

Gorton, B. (1957). The physiology of hypnosis, I. Journal of the Society of Psychosomatic Dentistry, 4(3), 86-103.

Gorton, B. (1958). The physiology of hypnosis: Vasomotor activity in hypnosis. Journal of the American Society of Psychosomatic Dentistry, 5 (1), 20-28.

Hull, C. (1933/1968). Hypnosis and Suggestibility. New York: Appleton-Century-Crofts.

Kripke, D., & Sonnenschein, D. (1978). A biologic rhythm in waking fantasy. In K. Pope & J. Stringer (Eds.), The Stream of Consciousness (pp. 321-332). New York: Plenum.

Rossi, E. L. (1968). The breakout heuristic: A phenomenology of growth therapy with college students. Journal of Humanistic Psychology, 8, 16-28.

Rossi, E. L. (1972/1985). Dreams and the growth of personality. New York: Brunner-Mazel.

Rossi, E. L. (1981). Hypnotist describes natural rhythm of trance readiness. Brain Mind Bulletin, 6(7), 1.

Rossi, E. L. (1982). Hypnosis and ultradian cycles: A new state(s) theory of hypnosis? The American Journal of Clinical Hypnosis, 25 (1), 21-32.

Rossi, E. L. (1986). Altered states of consciousness in everyday life: The ultradian rhythms. In B. Wolman & M. Ullman (Eds.), Handbook of Altered States of Consciousness (pp. 97-132). New York: Van Nostrand.

Rossi, E. L. (1990). Hypnosis and ultradian rhythms. In B. Zilbergeld, M. Edelstien, & D. Araoz (Eds.), Hypnosis: Questions and Answers (pp. 17-21). New York: W. W. Norton.

Rossi, E. L. (1986/1993). The psychobiology of mind-body healing, Revised Edition. New York: Norton.

Rossi, E. L. (1990d). From mind to molecule: More than a metaphor. In J.K. Zeig & S. Gilligan (Eds.), Brief Therapy: Myths, Methods and Metaphors (pp. 445-472). New York: Brunner/Mazel.

Rossi, E. L. (1994a). New theories of healing in hypnosis: The emergence of mind-gene communication. Hypnos, The European Journal of Clinical Hypnosis, 3, 1-14.

Rossi, E. L. (1994b). Hypnose und die neue Homöostase. Hypnose und Kognition, 11, 167-189.

Rossi, E. L. (1996). The symptom path to enlightenment: The New Dynamics of Hypnotherapeutic Work. Pacific Palisades: Palisades Gateway Publishing.

Rossi, E. L., & Cheek, D. (1988). Mind-body therapy: Ideodynamic healing in hypnosis. New York: W. W. Norton.

Rossi, E. L. & Lippincott, B. (1992). The wave nature of being: Ultradian rhythms and mind-body communication. In D. Lloyd & E. L. Rossi (Eds.) Ultradian Rhythms in Life Processes: A Fundamental Inquiry into Chronobiology and Psychobiology (pp. 371-402). New York: Springer-Verlag.

Rossi, E. L. & Nimmons, D. (1991). The 20 minute break: Using the new science of ultradian

rhythms. Los Angeles: Tarcher.
Sturgis, L. & Coe, W. (1990). Physiological responsiveness during hypnosis. The International Journal of Clinical Hypnosis, 38, 3, 196-207.
Waldrop, M. (1992). Complexity: The emerging science at the edge of order and chaos. Simon & Schuster, New York.
Wallace, B., Turosky, D. & Koloszka, A. (1992). Variability in the assessment of imagery vividness. Journal of Mental Imagery. 16, 221-230.
Wallace, B. & Kokoszka, A. (1995). Fluctuations in hypnotic susceptibility and imaging ability over a 16-hour period. The International Journal of Clinical and Experimental Hypnosis, 43, 1, 7-19.

Capitalizing on Concepts in Hypnotherapy

The Theory of Ecosystemic Practice

David P. Fourie

When people go to treatment agents they have particular, sometimes idiosyncratic ideas about the process of treatment. These ideas influence the treatment either directly or indirectly. The ecosystemic approach to hypnotherapy focusses, more than most other approaches, precisely on these client ideas and attributions as they come to the fore in the concepts used by the client. In this paper the theoretical rationale underlying this work is explained and a case study is presented to illustrate the practical application in hypnotherapy of this ecosystemic way of thinking.

There is the joke of a person saying: "When I am ill, I go to the doctor, get a prescription and pay the fee, because the doctor must live. Then I take the prescription to be filled out by the pharmacist and I pay for the medication, because the pharmacist must live. When I get home, I throw the medication away, because I must also live."

This joke illustrates that when people go to treatment agents they have particular ideas about the process of treatment. And these ideas influence the treatment either directly or indirectly, sometimes in ways which the treatment agent would not expect. While the medical model has been reluctant to accept this fact (see, e.g., Engel, 1992; Limacher, Dahler, Bösch & Egli, 1991), most practitioners of psychotherapy are keenly aware of it. The ecosystemic approach to psychotherapy and hypnotherapy, perhaps more so than any other, focusses precisely on these client attributions and ideas in treatment. It is the purpose of this paper to explain the theoretical rationale underlying this work and to give some indication as to its practical implementation.

From first- to second-order cybernetics in systems thinking

When systems approaches developed in the middle of the nineteen-fifties, two of the three central assumptions of a traditional, Newtonian view of science were discarded. These were the notions of reductionism and lineal causality.

Reductionism refers to the traditional view that objects and processes need to be reduced to, or split up into their basic components, so as to make it easier to study and understand them. The assumption here is that, once the components are analysed, an