

## I. INTRODUCTION

How would you like to become more creative? How would you like to use all of your mental capacity, rather than a mere fraction of it?

You've probably heard that most of the time we only use a slim segment of our creative resources. Most of the time we are using our rational abilities, but they are often constrained by rigid rules and boundaries, limiting assumptions, and repeating the same limited solutions. Wouldn't it be nice to develop a wide range of access to our unconscious storehouse of treasures, our memories, thoughts, inspirations, combinations, and visions of the future? Imagine sharing ideas and creating solutions with other people in your problem-solving team or task group, developing a synergy together so that you are excited and enthusiastic about your projects.

Well, that's what this Developing Creativity program is all about. It provides a coherent, effective system for the enhancement of creativity and the accelerated development of self-awareness. It presents a model for developing personal creativity, outlines steps in the creative process, and suggests methods for developing confidence in your intuition, and access to your unconscious through the window of the near-sleep state that we call theta reverie. This A-side in particular provides a guide through the entire creative process, from designing a question, generating imagery, understanding the meaning of creative symbols, all the way through to the implementation phase.

## II. CREATIVITY AND HYPNAGOGIA

In today's world, creativity is sought as a pathway to increased personal effectiveness and fulfillment, to access the vast untapped potential of the human brain. Recent research has linked one key element of the creative process to mind state mastery, the idea-incubation phase, and especially the imagery produced in the theta brain-wave state of near sleep called "hypnagogia."

Hypnagogic imagery is not conscious image construction as in visualization or deliberate day dreaming, but rather unconscious image projections, or dreamlets. These semi-sleep state images are usually spontaneous, vivid, fleeting and significant in nature. Often they are so brief that they are lost to memory, blurred by sleep onset if the person is too tired to stay conscious, or erased as the person becomes alertly and fully awake. It seems that the main skill in keeping these images is to remain very deeply relaxed, while not sliding off the edge into sleep. This audiotape-assisted session is designed specifically to guide you and maintain your awareness in this optimal state. The patterns on the audiotape provide a general preparation for the "emptying of mind" so crucial to the creative incubation process. While progressing towards the theta level, you begin to learn methods to cue and retrieve alpha and theta states at other times and places, so that the creative process does not have to rely on the use of your light and sound device, but rather on your self-generated or built-in learning.

The tape proceeds through a series of steps in mind state progression to the theta level, leaving you in the deep theta state to incubate imagery. Intermittent patterns of stimulation assist you in managing the arousal level on the threshold of sleep. Once you are at this semi-sleep state you passively, yet purposefully, remain awake, while at the same time you maintain a curious, attentive and watchful attitude of waiting for the subtle sensory images of the body and mind to arise. Audiotaped suggestions help you maintain lucid awareness, with strategies to help remember these images for later recording and further processing of their meaning and significance. There is also the provision of continuing in theta after the tape finishes for an extended period of personal privacy to allow for more complete imagery development.

This next section links Mind State Management to a Model for Developing Creativity.

The essential skill of Mind State Management is to recognize the task at hand and the optimal mind state to perform it, then to have the practiced ability to consistently transport your mind into that state whenever you need to do that task. For example,

#### (1) The First Step in the Creative Process is Using the Beta State for Problem Definition and Analysis

For linear, logical, analytical thinking, the beta mind state is optimal. This state is ideal for the Research Phase of the creative process. That is, analytical functions are important in the first phases of problem analysis. The beginning of a process of creativity often involves a **theme**, a quest, a question behind the quest, a dilemma, or a problem. The creativity evolved is ultimately evaluated by its feasibility and adequacy in addressing the issues raised in the problem or dilemma.

Before we can address a problem, we need to ask: "What is the problem? Where does it begin and end, or, in other words, what is the **scope** of the problem? How will we know when the problem has been resolved?"

Once a problem or dilemma has been defined, the next recommended step is gathering the people involved with the problem and gather data from them and other sources about the factors that are thought to influence the problem. What is the **context** in which the problem is

embedded? For whom is it a problem? When does it happen? In other words, what are the necessary and sufficient conditions for the problem to occur? Also important are contexts in which the problem does not occur. These may indicate paths towards solution or resolution by amplifying exceptions to the problem, until it has little room to exist. This solution-focused approach is what I call Management by Exception.

Another important analysis is the research about previously **attempted solutions** to the creative problem. These may indicate nearly adequate solutions that merely lacked one or two crucial elements to be effective. On the other hand, previously attempted solutions may have given rise to even more complications compounding the size or complexity of the problem. These patterns may have to be blocked or disrupted to allow a solution to emerge.

A similar beta analysis function is the selection involved in testing the feasibility of a potential solution, later on in the creative process. Many of the Energize sessions featured in the Voyager XL™ stimulate this way of thinking.

(2) The Second Step is Using the Alpha State for Invocation and Incubation of Imagery.

Beyond logically beta consciousness the Alpha state, the process of relaxed thinking and responding that is an important to the experience of Flow, the resourceful and responsive energy state. When we relax, or begin to generate images, our mind begins to think in more analogical or metaphorical ways. The constraints of reality are seemingly bent at the edges as we think of pleasant places, people, relationships, and safe and comfortable spaces in our mind. We make pictures, feel sensations, remember fragrances, and are transported from the ordinary requirements of strict obedience to the laws of logic, drifting into the lateral connections of association. We begin to enter the world of "what if?" as we actively construct other more interesting realities.

One way of promoting this process in creativity is to suspend or defer judgement and feasibility constraints, and Brainstorm. **Brainstorming** is the process of following your intuition without thinking or judging, producing a multitude of ideas: useful, crazy, weird, rational and

irrational. To allow brainstorming to happen you often need to go beyond the constraints of assumptions and rules that are usually never questioned.

To liberate the Mind for this process of seeking, you need to do various exercises and puzzles to break out of rigid ideational sets or limiting biases. Examples are James Fixx's book series "Games for the Super-intelligent" and Roger von Oeck's books and games such as "A Whack in the Side of the Head." All of these set-breakers are designed to temporarily suspend beta analytic thinking, and branch out into lateral or metaphorical patterns. DeBono's ideas about different colored hats for different kinds of intelligences or modes of creative problem solving are also quite useful here. The problem being addressed can often be visualized or moved into a different field or context by reframing or imagining how it would be if viewed differently. Such approaches as synectics, creative visualization, guided imagery, and other exercises can be used to assist the creative team or individual to use the visuo-spatial abilities that are featured in the alpha state.

In the alpha brain-wave state, special goals can be visualized, or dilemmas can be posed to the unconscious mind as themes for deeper meditation when the opportunity arises. This seeding of ideas or possible connections is often called the **incubation** process. Examples of synectics and imagery incubation are presented in exercises on the B-side of this tape.

After incubation, the creative person or team often takes a break away from traditional ways of solving or even thinking about the problem being addressed. At this phase the work group may decide to play baseball, go dancing, go for solitary walks, and so on. In various ways, creative people in this phase learn to withdraw their conscious and willful intention away from direct action, withdrawing into play, deep meditation, and the near-sleep states of hypnagogia and theta reverie.

(3) The Third Step is Using Theta Reverie to Cultivate Ideation and Imagery,

Beyond the alpha zone lies a slower brain-wave state, called theta, or in the creativity research literature, hypnagogia. Hypnagogia is the state of twilight consciousness on the threshold of sleep. Hypnagogic imagery is not the conscious visualization, guided imagery, or the deliberate day dreaming that often happens in alpha states. Rather, hypnagogic experiences occur during a more detached state of mind as unconscious image projections. Hypnagogia can be realized in any one of the five sensory modalities. Most often, though, it presents itself to one's conscious awareness as a "sensory image" of the visual, auditory and kinesthetic type. These spontaneous, fleeting, often vivid and meaningful images are similar to dreams in their initiation and source - the never-forgetting, powerful and mysterious unconscious mind.

Managing the gradient between alert waking states of consciousness and usually non-conscious sleep states is the key to useful and successful mind state mastery. Classical as well as clinical systems of training have included oriental, meditative, contemplative, biofeedback and hypnosis-induced forms of relaxation and expanded awareness. All of these gentle and subtle disciplines eventually stress the importance of staying outside of the enticing doorway of 'non-conscious sleep.' Managing one's arousal level requires an intentionality to slowly move towards sleep without entirely falling into sleep. Once at this semi-sleep state you remain aware of your state, while at the same time stimulating a curious, attentive and watchful attitude of waiting for the subtle, "sensory images" of the body and mind to arise. When working to expand the field of personal consciousness between awake and sleep states there is one main guideline: preserve lucidity, maintain awareness of your experience.

Virtually all of us have experienced these bright or strong images, and briefly we wonder: "What was that? or Where did that come from? or What does that mean?" but often we forget about them and just carry on daydreaming or falling asleep, forgetting later on to explore the meaning of these symbol icons, despite their richness.

The images of theta reverie are much closer to the unconscious or unknown. They are often much more vivid and unusual, as they can involve very interesting associations. They often appear as a sequence of snapshots of images evolving, sometimes by your act of observing them, and sometimes as if they have a life of their own, and they are merely showing their splendor to you. These are like jewels from the vast treasurehouse of the unconscious. Each trip into these

underground caverns of consciousness may offer the promise of something quite profound, or merely yield the common and profane. You never really know until you come back, and further examine the beauty of what you have mined. These symbols are ideas from your own knowledge and experience. But beyond that, they can also include the collective wisdom of generations of others in your emotional circle, your culture, and those factors which are in tune with the our world and the evolution of our consciousness as a species exploring the frontiers of inner space.

Sometimes you can extend or link together the images of theta reverie and twilight consciousness into a videotape of creativity in the land of dreams. This is very interesting because the dreamlets become assembled in sequences where the rules of common logic are often abandoned in favor of the experience of the unusual. The land of dreams has been a source of inspiration since time began. However, more recently a group of scientists have discovered that, by cultivating some habits of expectancy and vigilance, people can realize they are dreaming while in the dream state. Becoming aware, or lucid, can allow you to observe more effectively, or interact more actively with dream elements so that more ideas can be learned and developed. Individuals who can exercise such control of movement between the waking, semi-sleep and dream states report being able to maintain conscious, lucid awareness of the physical sensations, mental impressions and hypnagogic and dream images. This is lucid awareness of consciousness, an ultimate meditation skill.

For more about the link between Creativity and Lucid Dreaming, try the session on Lucid Dreaming and its accompanying audiotape, Relax into Lucid Dreaming. However, you can use this tape as well to prepare for lucidity. You are led into a theta state and kept on the threshold of dreaming for enough time to allow launching into a dream state where you still may have enough wakefulness to observe the whole process, continuing that lucidity right into the dream state. At that point you can tumble and recreate scenarios in virtual reality, the playground and creative workshop of the mind.

Such was the work and experience of the most creative people in the history of the human race. When studying the creative process and historical accounts of famous creative personalities it becomes obvious that some of mankind's greatest creators became aware of profound insights and inspirations during semi-sleep or hypnagogic and dreamy states of mind.

Probably the most famous example, and one which has been credited as being "the most brilliant piece of prediction to be found in the whole range of organic chemistry," comes from the renowned chemist, Kekule:

"I turned my chair to the fire and dozed. Again the atoms were gambolling before my eyes...all twining and twisting in snakelike motion. Look! What was that? One of the snakes had seized hold of its own tail, and the form wormed mockingly before my eyes. As if by a flash of lightning I awoke; and this time also I spent the rest of the night working out the consequences of the hypothesis."  
(Mavromatis, 1987).

And Brahms defined his hypnagogia as such:

"I have to be in a semitrance condition to get such results - a condition when the conscious mind is in temporary abeyance and the subconscious mind is in control..."

In Mavromatis's seminal work, Hypnagogia (1987), he documents an array of famous creative personalities who used semi-sleep states to arrive at inspiration for parts or entire volumes of creative works. His examples include artists, composers, novelists, playwrights, scientists, theorists, architects, engineers, designers, and inventors of all sorts.

Harmon and Rheingold in their book, Higher Creativity: Liberating the Unconscious for Breakthrough Insights (1984), suggest that each of us may be able to gain access through semi-sleep states, to an enhanced form of personal creativity.

Realistically, the probability of many of us achieving the breakthrough levels of genius realized by history's great creators is low. Each of these individuals spent a lifetime acquiring the expertise and honing the exceptional personal talents needed to excel in his or her own particular field of endeavor and unique life. **Nevertheless**, hypnagogia and creative reverie appear to be generic conditions within the range of human consciousness; that is, these states of mind are potentially available **to all human beings**. So each of us, if truly desirous and disciplined enough to practise with patience, over time will be able to identify, develop and possibly master this art of utilizing semi-sleep states to unlock our personal creativity. To keep us optimistic, but realistically inspired, perhaps it would be helpful at this point to offer a definition of Personal Creativity. For the purposes of this model, creativity is defined as: "personally novel ideas or inventive solutions which are, for the individual creator, fresh connections of value and feasible use." That means, that you and I can use these concepts and states of consciousness to use all of our creative capacity, regardless of our starting position.

Now of course, virtually all of you know how Light and Sound Devices are probably the most effective and efficient means to enter and maintain the states of consciousness that are optimal for creativity development. If you do not know this story and its history in modern times of brain wave entrainment, you can read about the early research conducted by the Menninger Foundation's EEG biofeedback pioneers Elmer & Alyce Green and Dale Walters. They have been studying and documenting the relationships between brain wave frequencies, subjective mind states and the creative process, noting that hypnagogic imagery and creative inspiration are attainable once a subject's brain waves are within the slow 4-8 hz frequency range of theta activity.

In Great Britain, during the 1970's, EEG biofeedback researchers Maxwell Cade and Nona Coxhead documented thousands of brain wave patterns and their subject's corresponding reports of his/her associated states of mind. In their book, The Awakened Mind (1979), their research data illustrate that a predominance of alpha and theta brain wave activity are necessary for the creative state of mind to emerge.

#### (4) The Fourth Stage is Decoding or Interpreting Creative Images Using Idea Associations with The Meaning Wheel

Once you have remembered a particularly significant hypnagogic image, how do you determine its personal meaning? Like dreams, hypnagogic images can be classified into any one or a combination of types: day residue that requires mental sorting and cataloguing in memory, the re-experiencing of emotionally charged past events, recurring personal symbols, archetypic symbols, the re-playing of relationship dynamics, and inspirational insights or solutions to the puzzles of life, including perhaps the problem that you incubated for theta reverie.

One effective system that Dan McKinnon and I have developed for uncovering and unravelling the meaning of hypnagogic images involves associative imagery. This method likely works best in an alpha state, because you want to encourage lateral or metaphorical associations or connections. Here are the 10 steps in this method:

1. Choose an image which strikes you as significant or "charged". You may not be sure why it feels so, but choose it. Let's say for example, I had the image of a blue flower.

2. Give the image a title or name, in 3 words or less, similar to the quick access words a secretary writes on a file tab. In my example "Blue flower blossomed."

3. Record in detail, by writing or drawing the image in your journal or on a blank sheet of paper.

4. Take a blank sheet of paper and in the centre write the title of the image. Draw a circle around it. This is the "hub of your Meaning Wheel."

5. Create a list of judgement-free associations by asking yourself, "What is \_\_\_\_ and insert your title in the blank. That is, what comes to mind when you think of a \_\_\_\_?) Example: "What is a flower?" Ask the same question for at least six of the associative responses, "What is blue? What is blossoming? What is fertility? What is beauty? What is the stem? What are the roots? Record each association. Finally ask again, "What is \_\_\_\_ (the original image) \_\_\_\_?"

6. Draw seven lines or spokes out from the hub of your Meaning Wheel. At the end of each line write one of the associations. Circle each association and connect each circle with a line so as to create the "rim of your Meaning Wheel."

7. Study your "Meaning Wheel," the rim, the spokes and the hub; notice how you made the connections. Close your eyes and visualize yourself "spinning the Meaning Wheel." As it spins, create a sense of personal meaning by seeking a pattern of connectedness between your associations and image.

8. Anticipate, expect and wait for an insight/meaning to breakthrough to your conscious awareness. Record the response in your journal or on the training sheet.

9. Take a few moments to work at relating your image and its meaning to the events and relationships currently affecting your life. Take special notice of any notions or feelings that you doubt are relevant. Often they are insights disguised by your ego-self as insignificant in an indirect means of preventing you from changing your character.

10. If you feel that the image holds even more meaning (in a way it just won't let you go), then the next time you recognize yourself approaching the semi-sleep state of hypnagogia, re-form the image by visualizing it written in a capsule attached to a helium-filled balloon. When you are ready, let the balloon go; offering it to the sky in a further incubation of your unconscious mind. Wait and watch for the next hypnagogic image - often it will be a direct response to your offering.

Image interpretation is often more efficient and enhanced if you can engage a trusted "catalytic companion"; a friend or facilitator, who will gently question you in the "What is \_\_\_\_?" format for associations, and coach you towards connections of meaning. The role of catalytic companion is one of acting as a sounding board and mirror to you. Both you and your catalytic companion must commit to be governed by one rule; it is you, the imager, who knows at a deeper level the true meaning of the image. The companion is not to try to interpret the image for you. If at any time you feel unsure or uncomfortable, stop the process. "You own your own feelings", and only need share them when ready.

Of course, there are a number of ways your companion can assist you in exploring and developing your images. You could use a psychodrama technique of role playing the images and telling or acting their stories. The format mentioned in the paragraph above is merely a

suggestion. We like it because it does not presume upon counselling skills of the companion other than good listening in a supportive and caring atmosphere.

One of the aspects that a catalytic companion offers is a slightly different mirror or point of reference. This can inject novelty or randomness into the way an image is explored or examined such that some very novel facet or feature might suddenly emerge.

Perhaps even more important is the support and validation of worth and intrinsic beauty that comes with the joy of sharing creative expression. Creativity unrecognized is still latent energy. When validated creativity becomes a well-source of energy required for the next phase, that of feasibility testing and implementation.

#### (5) The Fifth Stage goes from Validation to Implementation

Implementation requires a high degree of motivation and sustained effort through the potential roadblocks and disappointments encountered at this stage. Drawing the link we made earlier between personal creativity and semi-sleep states of mind does not discount the activity, persistence and perspiration needed during the implementation phase of the creative process.

In the feasibility step, ideas that were incubated and tumbled in theta reverie then developed into potential solutions are now grouped together. Task groups may be assigned to refine these solution ideas with pro forma projections of costs and benefits, in other words, to assess the practicality or workability of the proposed solution. An important consideration is how the proposal will affect the overall system or functioning of the organization, anticipating reactions and necessary adjustments. When this process has been completed, the task groups meet together with their reports, or if you are developing personal creativity, you still devise a short list of solutions, probably 3 or 4 of them. More would result in diffusion of focus, whereas

only 1 or 2 solutions may be too limiting. At this point, one proposal is chosen as the highest priority solution. An implementation plan is devised, with roles and responsibilities assigned, including a critical path with timelines for completion of the process.

The next step is to actually carry out the plan for this solution, allowing enough time for a genuine effect to be demonstrated. Following this step is the process of evaluation. The primary solution will prevail if effective, with fine tuning and adjustments to deal with any shortfalls and reactions. If the primary solution is not effective, then the priority 2 solution is adopted, implemented, evaluated, and modified as needed. This might happen as well with solutions 3 and 4, with research and de