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Original Article

## Quantum Mental Health through Visualization an Application to Anxiety Neurosis

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**Abstract**

*Anxiety is a global mental health problem requiring treatment innovation. From all treatments available, cognitive behavioral therapy (CBT) is one of the leading methods with sustainable results. Unfortunately, it is not widely accessible. Thus, this article is exploring the potential effectiveness of visualization as a promising tool and mechanism of psychological interventions, particularly for anxiety disorders. The objective of this study is to provide a theory of how visualization works and empirically test the hypothesis that it is an effective immersive technique for the treatment and healing of anxiety neurosis by applying quantum psychophysical parallelism and the creative process. The proposed hypothesis is based on the premise that visualization can be a very powerful technique to embody our creative exploration of purpose. Physical, somatic, cognitive and intuitive visualization exercises can help a person heal and transform. The goal is to quantitatively demonstrate the reduction in anxiety levels through self-reported questionnaires, biofeedback and brain wave analysis.*

*The overall expectation is that anxiety levels will be lower and that the patient will become much more skilled at recognizing fight, flight or freeze responses and self-regulating.*

**Key words**

*Anxiety, Mental Health, Quantum Creativity, Visualization, Mental Imagery, Self-regulation, Archetypal Exploration*

## About the Authors



**Natalia Arrias Camps**, a corporate executive with more than 20 years of experience advising Fortune 500 clients on strategy and marketing analytics. She holds an MBA from Duke University and other degrees in business administration, finance and advertising.



**Amit Goswami-Ph.D.** discovered the solution to the quantum measurement problem and developed a science of experience. He developed a theory of reincarnation and integrated conventional and alternative medicine within the new quantum science of health. He is the author of numerous books. Amit started the quantum activism movement, establishing a transformative education institution, Quantum Activism Vishwalayam, based on quantum science and primacy of Consciousness.

## Introduction

According to the Anxiety and Depression Association of America, anxiety affects more than 40 million adults aged 18 and older in the United States every year. From all treatments available, cognitive behavioral therapy (CBT) is one of the leading methods to treat anxiety disorder<sup>[1]</sup>. Unfortunately, not all anxiety patients have access to CBT and they are left to deal with this illness on their own or with the help of medication that usually does not resolve the root cause of anxiety<sup>[2], [25]</sup>. In addition, CBT focuses only on thoughts,

feelings and behaviors<sup>[3]</sup>, tending only to our mental, vital and physical human experience and leaving out our supramental capacity<sup>[4]</sup>. At the time of this study, psychotherapy and CBT are not addressing the creative process and archetypal exploration that quantum science stipulates as core elements of healing and transformation. The process of quantum creativity results from introducing new possibilities to the unconscious that get processed and eventually produce new meaning. Archetypal exploration, in particular the pursuit of the archetypes of wholeness and love, paves the way to create new meaning

that leads to transformation and healing [5].

This article proposes an integrative approach to treat anxiety that includes all levels of the human experience: physical, vital, mental and supramental [4] through visualization.

Supramental exploration as part of the integrative treatment is the original point that I look forward to proving through this research project.

According to quantum science, anxiety is the lack of attention to the internal worlds of meaning, thinking and intuition [5]. Following this definition, the objective of this research is to provide a theory of how visualization works and empirically prove that it is an effective immersive technique for the treatment and healing of anxiety neurosis by applying quantum psychophysical parallelism and the creative process [6] in which the subject allows consciousness to expand in order to choose new possibilities from the unconscious giving place to real transformation [7].

Our core beliefs and our basic attitudes seem to be the most important factors affecting our health. Creative exploration is giving new feelings (vital energy processing) and meanings to our experience. Balancing creativity with conditioning is the objective.

Healing is the result of permanent transformation that must become part of our character [5].

Recognizing at what level of the human experience is the root cause of the anxiety can be the key to healing [8].

It is important to note the element of choice whenever a person is trying to heal. By making

our personal choices congruent with that of the unconscious we can live happy and balanced lives. We have the freedom to remove the obstacles that are keeping us away from congruence [5]. By knowing all these facts we can choose an attitude that leads to disease or to health. The patient has the freedom to choose [20].

### **Quantum Psychophysical Parallelism**

Following the principles of quantum science, the human experience is much more than the physical body [4]. It is an external and internal experience that is represented by the physical, vital, mental and supramental bodies. This is the basis for the treatment of anxiety neurosis through the application of visualization techniques.

### **Physical**

The physical body manifests symptoms of anxiety neurosis. For example: rapid heart rate, chest pain, difficulty breathing, among others [9]. This is the physical layer of recognition. In some cases, people may live for years with these symptoms without knowing the real cause. Present system of medicine may or may not provide a clear diagnosis of anxiety but it will confirm the existence of underlying physical conditions causing the symptoms. If organ malfunction has been ruled out, we are left with physical symptoms caused by our limbic brains called the fight, flight or freeze response [10].

Nowadays we are not much in touch with our bodies, we are mostly brain-centered [11]. It is expected that by developing body awareness through the visualization technique the subject can build attunement with their bodies and

develop preventive awareness to recognize initial anxiety symptoms and self-regulate.

### Vital

Feeling the vital energies in our body is not as simple as our sensing capacity. Usually, the experience of feelings is associated with thought, objects that are called emotions [4].

Sheldrake proposed that these activation programs are epigenetic; they come from morphogenetic fields that must be non-physical organizing principles [13]. Consciousness plays a mediating role between liturgical / morphogenetic fields and biological forms. Following this, we now understand that every physical organ has a vital counterpart or Vorgan. A V-organ is quantum and its corresponding macro-physical organ is quantum by correlation [4].

Consciousness also identifies with the chakras [5]. The root chakra located at the base of the spine represents our survival and safety. Lack of attention to the root chakra and lack of creativity can lead to paranoia, anxiety and panic attacks. A real sense of security comes from the capacity to feel vital energy at the root chakra.

Vital energy does not collapse at the root chakra because there is no tangled hierarchy at that level, but as the patient becomes aware of higher energy centers, the root chakra energy can collapse at the navel, the heart or the brow chakra. Collapsing means energy moves up and transmutes into higher chakra energy. During anxiety the control of this chakra is taken over by the amygdala which gives the fear (flight) or courage and aggression (fight)

response [5], [7]. The brain's control is wider and also has an ongoing two-way communication with the immune system of the heart and the gastrointestinal system of the navel [11].

In the case of anxiety, the perceived threat produces stress and the suppression of the immune and digestive systems in order to fight or flee. This is a clear case of psychoneuroimmunology and psychoneurogastroenterology respectively. The brain can influence the immune system (heart chakra), through nerves and through molecules of emotion called neuropeptides. Similarly, the brain can influence the gastrointestinal systems (root and navel chakras) [11].

It is expected that visualization will help the anxiety patient develop the ability to feel energy movement at the chakra level. Understanding the underlying feeling that is causing the block or flow of energy is key to healing.

### Mental

Anxiety neurosis is based on a faulty perception of reality. The perception of imminent danger, where there is no real danger. We give dangerous meaning to some trigger (a word, an image, a sound, a person, a situation, etc...) [12]. By adding meaning to a particular feeling we create artificial emotional stressors [5]. It is expected that visualization will help alleviate the artificial emotional stressors that produce anxiety.

In order to desensitize to the trigger, it is necessary to treat the root cause of anxiety effectively. In the case of traumatic memories, rescripting (or reconstructing) is an effective approach [21], [22]. The subject can start the

process of reconstruction by visualizing other possible meanings for the memory in question (other situations, other reactions, other endings, other explanations, etc...), as if he or she could affect the past with a current choice. In essence, the subject can actualize previously unmanifested possibilities via delayed choice

[5].

### Supramental

Quantum psychology agrees with the Hero's journey with the addition of finding your archetype and following it. The entrance requirement for the exploration of the archetypes that begins with rewiring of the brain is developing the ability to proactively process feeling and meaning together [5].

Anxiety neurosis is a forward-looking mental disorder [24]. The majority of evidence suggests that anxiety is associated with automatic attentional biases for emotion-relevant (threatening) material [23]. People are worried about the future creating cognitive distortions that activate our survival response. Finding the root cause of anxiety and finding purpose are core pillars for recovery. Archetypal exploration is the how [7].

It is expected that once the patients have learned to regulate their symptoms they can embark on archetypal exploration creating healing and transformation and a new level of happiness. Visualization will be instrumental in this exploration.

### Method

The proposed hypothesis is that visualization can be a very powerful technique to embody our creative exploration of purpose. Physical,

somatic, cognitive and intuitive visualization exercises can help a person heal and transform.

Mental imagery (MI) is divided into two main modalities:

Visual imagery (VI) = requires self-visualization of a movement from a first (internal) or thirdperson (external) perspective. The first-person perspective corresponds to the representation of a movement as if the individual takes part in the action himself. By contrast, third-person perspective corresponds to the representation of the movement as if the subject was a spectator and that somebody (himself or another person) performed the action.

Kinaesthetic imagery (KI) = requires one to "feel

the movement" viscerally and to perceive muscle contraction and stretching mentally [14].

These two techniques, VI and KI, will be used alternatively depending on the type of exercise experience: sensing, feeling, thinking or intuition.

Recent data suggests that mental imagery (MI) has been successfully used as a therapeutic tool improving neuronal plasticity and helping the anxiety patient observe and recreate images, thoughts as well as feelings in the body

[14].

It is important to note that not all individuals have the same capacity to visualize and that affects the results of the study. In order to minimize this noise effect, participants will be prequalified through a questionnaire for highly visual people [15].

Visualization can help patients create new filters and as a result new memories and perception of reality. This brings much relief to the anxiety patient. It provides the ability to create divergent thinking which feeds into the unconscious processing. By alternating this process between doing and being, in time, it gives rise to new insights, new alternatives to the way we see the world. This is the beginning of healing from anxiety neurosis. These visualization experiences can be very real and our brain will show activity in the same areas as if we were out in the world having that experience [16]. The brain can't tell the difference. This is the motivation to use this method, people can work their traumas, phobias and fears through different exercises.

In time, thanks to neuroplasticity in the brain [17] the person can create a new way of experiencing the world, a happier one.

In order for the visualization to be effective, changes in brain waves could be induced as the mental imagery experience progresses. At the beginning of the experience, the individual will have high beta brain waves, the normal daily life state. During the relaxation phase, the goal is to achieve alpha brain waves to create the appropriate state of awareness for an effective visualization. Ideally and with the help of hypnosis or brain entrainment the patient can achieve theta brain waves as he or she moves into the visualization exercise [26].

### Structure and Content

As a general premise before utilizing visualization for the treatment of anxiety neurosis, the patient should understand anxiety and its symptoms. In my experience, having a rational understanding can help a person

remember that the symptoms he or she is experiencing are a product of anxiety, a natural response to fear, and that there is nothing physically wrong with them provided that the doctor has given them clearance [10]. Anxiety is a natural reaction to danger, so our physical body is doing what it is supposed to do. However, the problem is that there is not real danger, only perceived threats.

Once the patient understands that, the visualization is intended to work on that cognitive distortion, creating a new way to perceive situations, and eventually heal.

### Process of creative visualization

1. Set the intention before every visual experience. Example: "My intention is to understand the root cause of my anxiety disorder". "My intention is to gain a new perspective on this highly stressful situation that I am in." The person can set the intention in four steps. First he or she must formulate the intention for their own benefit, then expand it for the good of all and gradually let it become a prayer and finally release it. Intention-setting is the way out. We can set an intention with our ego, but the result depends entirely on our degree of attunement with quantum consciousness [6].
- 1) Relaxation exercises: all of these exercises are designed to move the subjects from beta to alpha brain waves, to help them create the necessary calmness for inner work. Here are some of the suggested

practices of focused relaxation (Do-BeDo-Be-Do):

- a) *Pranayama* (Regulated breathing)
  - b) Grounding
  - c) Self-compassion meditation
  - d) Leafs on a stream meditation
  - e) Divine grace meditation
  - f) Running of earth and cosmic energy
  - g) Chi Gong or Tai Chi practice
- At this stage the person should have achieved alpha brain waves, and should continue into theta. With the help of hypnosis or brain entrainment (binaural beats) we can help the person move into a deeper state of consciousness.

2) Visualization exercises: these exercises are created specifically to work on a particular aspect of anxiety. Visualization involves all the bodies: physical, vital, mental and supramental. The sequence of visualizations should take into consideration which state of anxiety is the patient in. For example: an anxious person may need to learn to selfregulate their panic before they can do a trauma rescripting exercise. Below are 5 types of exercises that will be tested:

- a) **Safety:** visualize a safe place utilizing all the senses. Visualization can be performed from first-person and then third-person, to gain objectivity on the experience.

- b) **Self-regulating(panic):** visualize talking yourself through your panic. Subjects can create their own script utilizing imagery and language that resonates with them. It is recommended to do it in firstperson.
- c) **Exposure:** avoidance behavior is very common among anxiety patients. It is a consequence of avoiding discomfort and gradually restricting themselves from experiencing everything that life has to offer. The only way to stop avoidance is to confront it. During exposure visualization instead of reacting to the action, the patient meditates on it, holds on to the action. He or she does not allow consciousness to contract, keeping it neutral or even expanding it.

Visualization is a great tool to achieve desensitization and regain comfort and confidence in a task or situation. It can be performed in first-person or third-person depending on the patient. It is recommended to break down the challenging experience into small achievable goals, start small and as the level of comfort increases, move to the next goal.

- d) **Rescripting (trauma):** sometimes the root cause of anxiety is trauma, in particular childhood trauma. As we grow older those memories become

part of the unconscious, and we experience anxiety symptoms without knowing the cause. By using visualization to go back to a memory of the past and experiencing selfcompassion and forgiveness the patient can move forward and heal from that traumatic experience. Quantum physics provides a technique called delayed choice. In trauma, the mental memories are very light, not concrete, so the patient can use delayed choice to deconstruct the memory and move forward. Third-person visualization is recommended to start.

- e) **Opening the heart:** visualize opening the heart chakra and flowing with the experience to create a new future. Healing happens at the heart. It is recommended to do the visualization in first-person. During a normal visualization the brain excites a memory at the heart creating a conditioned opening that is not fully nonlocal. In order to open the heart to nonlocality, the patient can achieve it in two ways. First, receiving vital energy healing at the heart. The usual heart meditation is preliminary, it does not open the heart to nonlocality. Once

in the heart with the help of the brain, healing can lead patients to experience nonlocality. The heart is the doorway. Second, archetypal exploration. In order to truly open the heart, utilize a memory to activate the heart chakra with the help of the brain, and then visualize loving kindness. This will also open the heart to nonlocality. In other words, meditate on the archetype.

- 3) Come out of the visualization experience and slowly open your eyes. Do nothing.
- 4) Reflect on the experience and journal about it.

### Expected results and measurements

Each subject will practice these types of visualizations during a 90-day period.

Visualizations will be provided in audio format with a length between 20-30 minutes each. Each recording will include guided mental imagery as well as brain entrainment music.

The overall expectation is that anxiety levels will be lower and that the patient will become much more skilled at recognizing fight, flight or freeze responses and self-regulating.

### Metrics

#### *Questionnaire*

Before and after each visualization, there will be a questionnaire to complete including an assessment of physical symptoms, emotions, mental state, expanded consciousness



experiences, specific anxiety triggers and reactions and progress towards a specific goal. HeartMath metrics:

The rhythm of a healthy heart even under resting conditions is surprisingly irregular, with the time interval between consecutive heartbeats constantly changing. This naturally occurring beat-to-beat variation in heart rate is called heart rate variability (HRV). The HeartMath Institute's research has shown that generating sustained positive emotions facilitates a body-wide shift to a specific, scientifically measurable state. This state is called psychophysiological coherence, because it is characterized by increased order and harmony in both our psychological (mental and emotional) and physiological (bodily) processes [18].

One of the goals of this research is to measure psychophysical coherence, a state of optimal function, during visualization.

EEG metrics:

- 1) Cognitive states metrics reflect the overall engagement, attention and focus. Metrics: sleep onset, distraction, low engagement, high engagement [19].
- 2) Workload metrics reflect any cognitive process involving executive functions such as working memory, problem solving and analytical reasoning.

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Workload as associated with theta band activity increases with higher levels of task demands and working memory load. Metrics: boredom, optimal workload, stress and information overload [19].

### 3) Cognitive-affective metrics:

Engagement/ Boredom: reflects long term alertness and the conscious direction of attention towards task-relevant stimuli.

Excitement (Arousal) reflects the instantaneous physiological arousal towards stimuli associated with positive valence.

Stress (Frustration)

Meditation (Relaxation)

## Conclusions

To conclude, the overall goal of this study is to provide an approach for gathering quantitative evidence that anxiety neurosis can be effectively treated by the application of quantum science principles and visualization techniques.

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