

## **The Fractal Technique – A Way to Access the Unconscious and to Reduce Stress**

**Raluca Maria Simion\***<sup>ii</sup>

\* Faculty of Psychology and Educational Sciences, Psychology Department,  
University of Bucharest, Bucharest, Romania

### **Abstract**

**Introduction:** *The Fractal Technique is specific to the Unification Therapy and can be used both in groups and individual intervention in a non-invasive manner for exploring the unconscious. Fractals are a series of colourful drawings with abstract, self-similar, repetitive shapes that can be an abstract mathematical representation of many natural elements.*

**Objectives:** *This paper aims to outline some procedures in which the fractal technique can be used in the Unifying Personal Development group (UPD) and explain how fractal images can help to substantially reduce stress.*

**Methods:** *The methods used in this paper presents are the results of a personal literature review of the positive effects of fractals on stress, as well as the outcomes of personal research where The Fractal Technique was used as a pretext to access, analyse and resignificate blockages or traumatic experiences.*

**Results:** *Three years of effective work with fractal images as a projective tool, as support for creative meditation or just as a provocative object have proven that these images can have both psychodiagnostic and optimizing valences. Also, used in a proper manner they can have positive influences over stress and anxiety.*

**Conclusions:** *Fractal Technique is an innovation in the Unification Therapy. It is perhaps one of the few techniques that uses a mathematical concept, pointing out the interdisciplinary character of this orientation. In my personal work, I have observed that fractals can be a good tool for a psychological experiential diagnosis. In addition, images with a fractal dimension ranging from D1.2 and D1.9 reduce stress the most. Another conclusion relates to their projective power. A thorough research in this field is absolutely necessary because it has been observed both in individual and group work a preference for certain boards, depending on the degree of anxiety and some personality traits.*

**Keywords:** *fractals, anxiety, projective tool, creative meditation*

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<sup>ii</sup> Corresponding author: Raluca Maria Simion, Faculty of Psychology and Educational Sciences, University of Bucharest, Panduri 90, Sector 5, 050663, Bucharest, Romania. Tel: 0744794378. E-mail: raluca.simionn@yahoo.com.

## **I. Introduction**

Most of the problems that bring people into psychotherapy are related to stress caused by a blockage in one's experience and a dead-end in finding proper ways of action in certain areas of their life. Basically, when someone asks for psychological support it's because the problem got so intense and all the strategies used before aren't viable anymore.

That's why one of the objectives of psychotherapy, and even of personal development groups, is to reduce the level of stress and to calibrate anxiety with courage.

Of course, to do so, specialists use a variety of methods and techniques depending in which psychological school they are formed. For example, psychoanalysts think that if the client gets to understand the manifestation of the Self, he can manage to have a qualitative life. While the humanistic think that a deep understanding of the Self is also needed, but most important is to involve the needs of the Self in current, present actions.

But accessing the authentic someone's authentic Self is a difficult task. Firstly, because a part of it lays in the unconscious, and secondly because people have defense mechanisms that hide the true nature of the Self. And this is probably why there are so many techniques and why the psychotherapist's job is more important than the techniques he/she uses. Of course, every psychotherapist needs techniques because the Self doesn't reveal itself only by asking and It cannot be restructured only by talking about it.

If a therapist decides to use or not a certain method in his/her therapy depends on his creativity, intuition, school orientation and other personal aspects. But if he chooses to use one, he has to know the limitations of the techniques, its psychological purpose and how to apply it correctly to get the expected results. Otherwise, he might just make abuse of techniques without bringing any improvement (Mitrofan I., 2000).

In this article, we aim to present the manner in which the Fractal Technique (specific to the Unifying Therapy) works and how it can be used both to access the unconscious and to reduce stress.

But first, what are fractals and what is their connection with the human psyche?

Fractals are a series of colourful drawings with abstract, self-similar, repetitive shapes that can be an abstract mathematical representation of many natural elements.

This personal delimitation doesn't say too much about the connection between these geometrical

shapes and humans or why some natural objects can be described as so.

Mandelbrot is considered to be the father of fractals. But he is not the first one who drew them, he is just the first one who named them and managed to represent them on a computer. The name comes from the Latin "fractus" which means fractured, broken.

The history of fractals starts in the ancient times and this can be easily observed in the architectural design of the buildings that have been preserved ever since: Hindu temples, cathedrals, paintings etc. (Sala, 2002).

Mandelbrot made its discovery in 1975, but before that, painters were reproducing fractals unconsciously and mathematicians were trying to figure out what kind of dimensions and shape has the natural world. Of course, the mathematicians were limited because of their tools (it was impossible to infinitely iterate by hand) and the chaotic appearance of these shapes. At the begging, they were called mathematical monsters.

Imagine for example a straight line from which the middle is removed. Then the same process is applied for the next 2 lines, 4 lines, 8 lines and so on. Basically, this can go on infinitely even though it develops in a finite length.

To generate a fractal, three elements are needed. Firstly, a base shape from which to start (the initiator), a rule to make a new shape from the base (the generator) and to repeat these rule infinitely (iteration) (Butot A., 1997).

This process is very similar to the way in which people develop skills, habits, addictions, phobias and stress. The initiator can be represented by all excitatory stimuli. A generator is the individual answer to stimuli, while iteration consists in generating a similar response whenever the stimulus will appear in one form or another.

Most of the shapes around us are described in terms of rectangle, sphere or line. But this is not enough. What mathematical shape can describe the appearance of the trees, clouds, waves, blood vessels or tumors in our body? The best term to use is Fractal because the approximate iterated self-similarity can be easily seen in natural elements. Just think of a tree branching or a fern growing.

This has made a lot of architects, biologists and nature lovers to ask themselves who is responsible for the positive effects of the nature: the nature itself or the fractal dimension behind it?

This is one of the questions that this paper will try answer to. The other one is based on the relation of

fractals to the human psyche concerning the fact that fractal shapes are being represented or seen by artists, normal people, under the influences of drugs, when we watch the sky or when we keep our eyes shut.

Concerning Jung's conception on archetypes and the collective unconsciousness, we might suspect that fractals are also an expression of the personal Self. Correlating the fractals concept with the esthetics and genesis of a mandala, we might also think that fractals might be an external representation of the Self and a struggle of the Self to heal some primary traumas (Jung C., 1963).

This paper aims to explore whether fractals can have projective powers and therapeutic properties when used in an experiential manner, as a support for creative meditation and self-exploring provocative scenarios.

### **Objectives**

The main purpose of this paper is to underline the manner in which fractals can be used in the Unifying Experiential Therapy (UEP) and in the Unifying Personal Development (UPD) process within a group. Their use in psychology is at its beginnings, yet some research was done concerning the subject. Besides the studies on the effects of fractals on stress or the analogies with the human behavior, we also developed a study where we use fractals in a complex training as the Fractal Technique (Simion R., 2015).

Both UEP and UPD aim to unblock personal development and to activate creative resources and intentions. It is important to guide the clients in such ways that they rediscover the meaning of life, integrate and accept their own identity roles by unifying polarities and maturely assume the changes in their personal life script.

To reach these goals, experiential psychotherapists and trainers believe that the person by herself in individual sessions or in groups has to go through a self-exploring process. Only this way someone can extend his/her self-awareness and will become an active witness of his/her personal action.

Working in an experiential manner allows the specialist to use a lot of creativity and flexibility in implementing and readapting specific techniques in such ways that they respond to the contextual and individual demands.

One of the best qualities of the experiential framework consists exactly in this flexibility, and also in the non-invasive manner used to access, diagnose, analyze and restructure blocked traumatizing experiences.

Due to stress, anxiety and defense

mechanisms of the psyche, it is better for those who request psychotherapy or personal development to reveal themselves in a natural and secure way, using their own words, symbols and metaphors (Mitrofan I., 2012). Fractals might play an important role in creating a secure context where the client can talk freely about traumas and get to reconsider them.

That's why, a second objective of this paper is to present the literature review concerning the ability of fractal images to raise tolerance to stress and to lower anxiety. It is believed that only by watching fractals, without any special training or setting, stress can be reduced by almost 60%. How, when and why this relaxation can occur will be discussed in the next pages, correlating other specialist's findings with our personal research results.

If fractals do reduce stress only by watching them, imagine the great effects that they might have WHEN used in an experiential approach through the Fractal Technique.

Because this paper is both a literature review and a presentation of a three years' use of fractals in different psychological contexts, in the objective subchapter we will also present the objectives of this specific technique and of our personal research, trying to give new directions for future studies.

As mentioned earlier in this paper, UEP and UPD are based on methods that facilitate the access of the patient's/client's Self and resignification of blocked experiences. The Fractal Technique is based on creative-meditation with fractal support, and also involves the specific experiential analysis method.

In one of her articles, Iolanda Mitrofan, concludes that UEP and UPD have a unifying effect on all parts of human manifestations. If we correlate mandalas with fractals, fractals might emerge from an unconscious need of the individual and collective Self to "heal" itself (Mitrofan I, 2012).

C.G. Jung considers a representation of the Self, especially when it appears spontaneously in art and dreams. Mandalas are also present in almost all cultures of the world, even in those without any evident connection to their evolution, which makes them, in Jung's opinion, archetypes (Jung C., 1963). Fractals might also be an archetypal representation, given that they are also present in different parts of the world since ancient times in art, architecture and also in some human conditions (when the eyes are shut, in hallucinations and entopic phenomena).

Anne Schutzenberger (1997), considers that the "anniversary syndrome" works just like a fractal. A person tends to repeat an event in a similar manner at

the same date when an important transgenerational event occurred.

For Marks Tarlow (2008, 2010), the formation of the Self has a fractal structure and evolves in a deterministic way and is approximately self-similar with an earlier stage. Basically, an adult contains also his adolescent Self, his childish Self, his intrauterine Self, transgenerational Self and collective unconscious. To understand better, the way a child makes decisions when he plays will probably be self-similar with the way he makes decisions as an adult. Of course, if a trauma occurs, the direction can be changed (but the first response to trauma will be repeated in similar contexts with the trauma).

Knowing this, the affirmation that fractals could be an archetype of life and society itself, might be correct. This is just a supposition, and further studies are needed in this area.

Of course, one of our personal research objectives was to observe if during the meditation, archetypal images are easily accessed when fractals are used. Also, another objective was to test if they have any projective power and if choosing a certain fractal image might suggest some information of that person's problems and personality traits (Mitina & Abraham, 2003). But the most important goal was to statistically find if fractals raise tolerance to stress, reduce anxiety and improve openness to experience and creativity.

Besides the scientific aspects of our research, there were some objectives concerning strictly the use of the Fractal Technique and its effects on the participants during an experiential development group. We have used this technique because it is based on creative meditation as a main vehicle to access the unconscious and even the trans-conscious levels of the psyche. It is not recommended to use it with persons with psychiatric conditions like schizophrenia, depersonalization, borderline or bi-polar disorders. If it is still used, special precautions should be taken because of the possibility to reinforce the patients' symptoms.

The participants in our experiments were persons with a high level of subclinical anxiety. Also, besides exploring the Self, another aim is the actualization of affective memories that were blocked because of their traumatic character. This way, the past (both lived and imagined) is relived in the present.

The third objective of the Fractal Technique is to bring to life one's archetype and the resources within. With special instructions, the guided creative meditation can be directed in such manner that one can become aware of his/her real possibilities and limitations.

If all these goals are achieved, the next step is

to implement the results, to maturely and consciously assume personal needs, directions in life, decisions, success and failures and to get to know how to properly react in different contexts, how to control emotions and to relax. Overall, the last three years' research focused on quantitative and qualitative observations regarding the effects of The Fractal Technique over stress and anxiety, its provocative-projective power (experiential diagnosis) and its spontaneous restructuring valences.

## **II. Methods**

This part of the paper describes a personal literature review to explain and bring evidence that fractals can reduce stress, how and when is this possible. Our personal research is mainly based on these findings so knowing them is important in further research for those who might be interested. A focus on the instruments used and the development of the UDP group is also available in this part. Also, a more accurate description of the way in which the Fractal Technique can be applied in UDP groups with subclinical high level of stress and anxiety is offered.

Fractals are a new concept even for mathematics and other exact sciences because their existence was scientifically proven only 41 years ago. A lot of natural objects, even some components from the human body, can be classified as fractals. The effects of the natural environment and even of pictures with nature over health are well documented (Kaplan S., 1995). This led the psychologists and architects to explore the effects of fractals on the human perception and on their emotional states when being exposed to this kind of stimuli.

R. P. Taylor spent over 13 years studying the positive influences of fractals on stress and perception. In one research at NASA ((National Aeronautics and Space Administration) only 4 images were used (a savannah, a forest, some squares and a white image). Only the first two were fractals. The results showed that the savannah was the most preferred picture, and that the subjects' level of stress decreased when exposed to savannahs and forests (Wise & Taylor, 2002). In another study, where changes in skin conductivity were measured, at the 350 participants registered a decrease of stress (Taylor et al, 2005).

Hagerhall discovered that fractals with fractal dimensions from D1.3 to D1.5 are the ones with the highest positive effects. Results were registered with an EEG measurement of the brain response. In the same research it was observed that D1.3 fractals stimulate the highest activation of the Alpha frequencies, responsible for relaxation and inward attention

(Hagerhall et al., 2008). In this study only skyline silhouette fractals were used, but it is known that natural objects like clouds or snow patterns allow introspection and are fascinating (Kaplan, 1995). This suggests that further studies with different representations of the same fractals with the same and different dimension must be done. But besides this, it is a certain proof that fractals have an impact on the brain activity, concentration and disposition for self-exploring. This leads to the idea that fractals can be a starter for meditation.

In his latest study, R.P. Taylor found that the fractal dimension of eye motion remains D1.5 no matter what fractal dimension the scanned image is (Taylor R.P. et al, 2011).

Another study investigated how fractals images are perceived as being beautiful depending on the subjects' personality traits. For example, those who scored high on insecurity with a tendency to self-blaming and worrying considered that beautiful fractals were those who were closer to D1 (spares line and points). The same preferences were observed also in those who scored low at self-sufficiency, being group orientated and the listener type. Those who scored high at dominance and aggressivity, being stubborn and bossy preferred higher fractals D3 (more complex and gathered lines). The test used was the 16PF Sixteen Personality Traits Questionnaire. For more information, check the bibliography for the exact study, because these examples have the role to show that besides the experiential analysis, the preferences for some images can suggest some personal traits and even more. In our further research we aim to conduct a similar experiment.

Until now we managed to develop a ten-session program for people with moderate and high levels of stress and subclinical anxiety. Every session was recorded. In the selection phase, every person was interviewed during a 45-minute session. Besides an anamnestic interview, the participants were asked to respond to Cattell's Anxiety Scale Questionnaire-C and Perceived Stress Questionnaire (PSQ) - known as Levenstein questionnaire, which measures stress in the last six months. Also, their monthly changes in stress were registered with the Perceived Stress Scale (PSS) - known as Cohen-Williamson questionnaire.

During the session, qualitative methods like observation, feedback, creative products and interpretation of the analysis and keeping track of the preferred and disliked fractal boards, were used to observe the projective and provocative power of the Fractal Technique.

Also, during relaxation, meditation with fractals was used as support and after each session the participants were asked to rate between 1 and 10 their level of relaxation before and after the exercise.

The fractal Technique was used in every session together with other UEP and UDP techniques adapted to the present context. When it comes to this paper, the term fractals refers to a set of 20 digital fractal boards with dimensions ranging from D1 to D3 and fractal-like natural elements and textures.

The Fractal Technique was applied considering the four stages of UDP, creating projective-provocative contexts that are analysed. The Fractal Technique was also a pretext for facilitating the reintegration of the blocked experiences, using the creative meditation with fractals or other techniques like different dramatizations or the empty chair technique. For example, participants can work on their polarities depending on the therapeutic metaphorical scenario. They can work on their Persona - Shadow, Anima - Animus, anxiety - extreme courage, parent - child relationship and the list can continue depending on the therapists' creativity and flexibility to adapt the existent creative meditation method and experiential challenges to fractals. Madalina Voicu has also used fractals for self-exploration and unification of polarities (Voicu M., 2015).

For example, for the integration of the feminine and masculine polarities, participants can be asked to relax and can be guided in a creative meditative process that leads them to a place where there are two similar spheres: *„Watch these two spheres that lay in front of you, to your right and to your left. You choose one of them. And as you are holding it you choose to praise it with love, kindness. And the sphere starts to evolve. To change. You add sensitivity to it. The need for affection. And now the new sphere evolves more, changing shape and colour. Becoming more complex, more intricate. And while you add attractiveness, weakness, emotions you notice that the other sphere is changing too. What happens to this sphere? It remains the same? Is it getting bigger, or smaller? What are the effects of it while the first sphere becomes more feminine, sensitive, caregiving, loving? Now you can take the other sphere and make it opposite to the first one. Powerful, emotionless, in control, aggressive.*

*Think of the masculine side. What shape does it have? Is it rough, is it intricate or simple? Is it bigger than the feminine sphere? What colour would you associate it with? What colour are the men in your life? What about the women? Add this colours to your*

spheres. Add shape to them. You can make them feminine and masculine. When you are done, please combine them. See what happens to your spheres. Do they combine easily? To they fight? Which one is bigger? How to the influence each other? How do they get along? What do they think about each other now that they are together? What shape did they get? Is a harmonic one, or a chaotic one? Is it beautiful? Is it simple or complex? How is its outline? Is it curved or fractured? Please observe this new shape. Memorise it. And then let it go.

*Remember that now you can access this new shape whenever you need. Thank this shape for this experience and when you can open your eyes. Please choose a board to represent the process of unification of the two spheres.*

This is just an example, but the Fractal Technique can be adapted to the situation and individual demands, with the specification that special care (or no use at all) should be taken when working with people with psychiatric conditions. In our personal research, we have used both qualitative and quantitative methods. Besides the test, participants were recorded and asked after every session to give a feedback about their fractal experience.

### **III. Results and discussions**

The results presented in this paper are the partial results of an ongoing research over the diagnostic and optimizing valences of the Fractal Technique, based on UEP, in reducing stress and anxiety. Until now, the technique was applied on almost 50 participants, in four personal development groups with ten weekly sessions of three hours each. Besides this, five creative meditation workshops for relaxation with fractals were also held. Also, a 7 days 2h daily informational workshop was hold during a music festival while experimenting the preferences of the participants over 20 different fractals.

One of the greatest challenge of this study was the documentation part. Fractals are a new subject even in mathematics. Even though the concept is now used in other exact sciences, there are only few studies in the area of psychology and even fewer in psychotherapy.

But we managed to gather some information which confirms that fractals have an influence on human perception and even on the human brain. One study, even shows that the alpha cerebral frequencies, responsible for meditation, introspection and inward attention, are stimulated by certain fractal dimensions (Hagerhall et al. 2008).

Basically, these findings were the starting

point of our research, which was also based on the existing applications of the Fractal Technique in UEP and UDP by Romanian psychologists, with positive effects on the participants. At the end of this research we expect to notice if there are any statistical differences on stress and anxiety levels before and after an experiential personal development group where fractals were used as projective-provocative tools and as a support for creative meditation.

The results in this paper are only partial and one of their limitations comes from the small group of participants involved. To gather more accurate information, it is important to use the Fractal Technique on a larger group of subjects, from diverse categories. Until now, the research was applied only on persons between 20 and 45 years with a high level of anxiety and stress, without a stable job.

Before the effective personal development group started, a selection of 20 images was done and random people were asked, during a music festival, without any special instruction, to choose a fractal they like the most and one that they dislike the most.

Around 200 hundred people were asked to do this task. The images were between D1 and D2, the smallest was 1,2 and the highest was 2.09. We observed that people tend to like most fractals with dimensions between 1.2 and 1.8, while those with higher dimensions tend to be perceived as ugly. Almost 60% chose smaller D fractals to like the most. The results are consistent with Forsythe, even ours are a little lower. It is interesting also that lower dimension fractals are the most likely to reduce stress, yet still people like most the bigger ones. Do personality traits speak up in these choices? It remains to find out in further research (Forsythe et al., 2015).

Of course, these differences might be also because of the experimental group who was not so randomized, concerning the fact that the festival attenders were between 18 years and 35 years and listened and believed in a certain kind of music.

The same tendency was observed during the personal development groups and in the relaxation workshops. During our personal development group, we observed a change in the participants' preferences from week to week, observing that while the group evolves and the problems unfold, participants start liking fractals with dimension between 1.8 and 2.09.

So when it comes to preferences, it seems that these can change in time depending on contextual factors. So we don't know for sure whether there are some personality traits involved and the dimension of the chosen boards can suggest some personality traits.

However, those with high levels of anxiety kept their preferences for lower D fractals while others preferred the bigger dimensions even from the beginning. All the personal development groups started with the Fractal Technique in which all the participants were asked to meditate on their personal shape as it used to be, as it is now and as it needs to be. After that, they were provoked to choose a fractal that represents them. When participants started to say what that image could say about them, the experiential dialog showed up began and they were talking about their personal problems. An explanation for this big openness of these anxious persons can be the fractals' ability to induce relaxation and their projective power.

When it comes to fractals' intrinsic ability to reduce stress, results show that this statement is true and the effects are even bigger when they are accompanied by an experiential meditation.

A part of the evidence consists in the personal statements of those who attended the three hour workshops. Participants were asked to watch, while listening to music, a series of moving and static fractals, and concentrate on their breath, while walking in around the room. After they found the fractal that is the most appealing, inspiring and fascinating, participants were asked to find a relaxing position and start a meditation from a part of the picture they like the most.

After each workshop, people rated their level of perceived relaxation after the experiential exercises on a scale from 7 to 10. Only 10% of the participants considered that their level of stress remained the same after the experiment, while 5% said that they couldn't meditate, yet the experience was positive for them.

Of course, probably other factors, besides fractals played an important role during the workshop. That's why the results obtained before and after the personal development groups are more relevant and accurate. Also, statistical measurement with correlations and sign test were applied.

In this part of the research, the evolution of perceived stress during the last month and last six months was measured along with the changes in the levels of anxiety. These results were compared with control groups consisting of people who never attended psychotherapy, counseling or personal development programs, with almost the same life context as those in the experimental group.

The results showed that all the participants registered a decrease in stress and anxiety, becoming more self-aware, confident and more capable to assume risks and responsibilities than those in the control

group. The sign test showed an improvement in all the participants, while in the control group these changes were random. These findings suggest that those in the development group were less influenced by the exterior context and perceived it friendlier and easier to control and respect its demands.

More about a part of these statistical results can be found in an earlier study which presents in detail the evolution of a 12-person group where the Fractal Technique was used.

Also, the qualitative results gathered through observation, feedback, discussions and interviews, shows that all the participants had made visible changes in their life and started to maturely assume their own goals. But besides this, the symbolic way of revealing one's problem, the creative products developed during the creative meditation showed that fractal boards can also have projective and provocative powers.

This could be observed even from the beginning. Even when they were simply asked to choose a picture that could represent them if they were to turn into fractals, the diagnostic valences of fractals could be observed with a simple question > *In which manner does this picture represent you* <. Someone chose a very spare picture, with a central obvious circle. He said that the picture represent how he is trapped in the middle of dreams. His level of anxiety and stress was high. Later, during the group, with the help of experiential analysis, he confessed that his mother is sick and had moved back in with her. Because of this situation he is unable to do a lot of the things he used to do before. He was always a parental child, who helped his mother. He even chose in his life a medical profession because his mother was sick all the time.

But the most interesting part of The Fractal Technique consists also of its ability to activate spontaneous restructuration, when used for creative meditation. During these sessions participants got to access their persona and shadow, their anima and animus, by interacting with archetypal figures like harlequins, dwarfs, the sun, mountains and caves.

In one of these session, the person in the earlier example, found himself in a cave where he was afraid to leave, because something bad will happen with the cave. Even though the meditative scenario said to move around the place, he was unable to do that, only when the guided meditation turned the point where he had to thank the place and leave, he observed that there were some woods around that he could lit. As he was turning away from the cave he noticed that the

cave was brighter and more powerful, and he felt happy outside. This was a turning point in accepting his limitations in treating his mother's illness and decided to hire a nurse while he was gone.

Even though these results are preliminary and only a small part of a bigger research, they are enough to prove that the Fractal Technique can be a useful tool for experiential challenges, for suggesting some diagnostic suppositions that can be checked with experiential analysis and also to restructure, activate and integrate one's resources and unaccepted parts of the Self.

#### **IV. Conclusions**

This paper is part of a bigger experimental research which aims to present the possible applications of the Fractal Technique in UEP and UDP as a way to access blocked experiences and to facilitate provocative experiential challenges who can also have reorganizational effects.

The Fractal Technique uses fractal digital boards, but also other natural elements which have a fractal geometry. This article is also a manifesto for using more natural elements no matter what technique is used because of their ability to relax and raise introspection. Until now, even though this subject is new, some studies have shown that some fractals stimulate the alpha frequencies and that they can also reduce stress.

Our personal work with the Fractal Technique showed that an experiential use of these mathematical shapes can have positive effects on people's anxiety and stress, but also it can reflect some information about the viewer's personality traits.

Almost all of the persons who got to have a minimal impact with fractals during meditation workshops or in ten weeks' development programs, registered lower levels of anxiety and stress. When it comes to UDP, the Fractal Technique was used both as a meditation support and also as a projective-provocative tool.

Analyzing the statistical results and the qualitative products and changes in the participants' lives, it was shown that fractals can have diagnostic and optimizing valances. Not only did participants talked openly about their problems, but they also experienced spontaneously a restructuration during creative meditation. There were cases where the access of the Self and its resources was revealed in an archetypal manner with symbols like the sun, mountains, rocks, caves, dwarfs and harlequins.

Comparing the results with a control group

which didn't benefit from any kind of psychological support, it was shown that there is improvement in one's life if he/she attends a personal development group based on the Fractal Technique.

Fractals facilitated the growth process, making participants feel more relaxed and open for Self-exploration, creating the opportunity for both therapist and client to work on the blocked experiences of the Self, on emotional dependency, accepting personal identity, forgiving the past and assuming the present.

In conclusion, it is necessary to empirically prove the diagnostic and optimizing valances of the Fractal Technique both in DPU and UEP, because this will enrich the arsenal of experiential techniques with a mathematical therapeutic instrument. In my personal practice, I have observed that fractals tend to attract people who are very rational and who know fractals from a mathematical point of view. Also, another category was drug users and people with schizoid or schizotypal tendencies who believed that fractals are something magical.

Usually, these categories of people tend to avoid therapy because of their skeptical believes concerning therapy. If fractals do attract them, it is important to study new ways in which the Fractal Technique can be adapted to these kinds of needs.

Fractals are only at their begging. A lot of interdisciplinary research is done in the field. This is why, scientists managed to explain weather and market prices fluctuations, the evolution of cancer and the loss of body control in Parkinson. Also some studies found out that in some diseases (for e.g. cancer, Parkinson, heart problems) the fractals dimension of the affected organs suffers important changes.

Knowing this raises an inevitable question: can fractals have an effect also on the body if used in an experiential manner through PEU and DPU? Can changes happen if the person is exposed to a fractal with the right dimension of his sick organ? Even though these questions sound a little utopic, further research on the domain can show if these possibilities are correct. Until then, this paper shows that fractals can have a positive effect on the psyche, especially when used in the Unifying Therapy as the Fractal Technique.

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