New Perspectives in Stress Psycho-Diagnosis

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Abstract: The paper aims at establishing a new stress assessment methodology using the GDV Camera to find ways to minimize the stress level by accessing known psychotherapeutic techniques to professions such as police. The research aims at repeated measurements performed on a group of 30 subjects under stress conditions and after relaxation therapies. The working hypothesis is that the use of some quick relaxation, concentration and attention techniques can cause the stress level of the subjects to decrease. The novelty stems from the fact that this methodology of stress assessment is much more effective than the ones used so far.

Keywords: GDV Camera; bioelectrography; altered state of consciousness; cuantic psihodiagnosis

Recent researches on international stress, conducted by two universities in the UK and the United States, show that there is an alarming rise in stress levels in Europe. Thus, in the stress test conference held in August 2002 in New Hampshire, USA, the results of a survey of 7500 people employed in different jobs from 16 European countries were presented. The subjects were interviewed about the changes that took place over the last five years in their workplaces and in their jobs, being also subjected to standard psychological tests that assess health status by items such as: feelings of insecurity, loss of sleep (in varying degrees) and the appearance of depression (different levels).

Individuals in some countries or areas in Europe have a much higher level of stress than other European areas. The study shows that countries and regions where the stress level is very high (causing somatic disorder) are: Eastern Europe (among the countries listed also Romania), Germany, Greece, Italy and the United Kingdom at

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the opposite pole, with a lower level of stress, with Belgium, Luxembourg and Spain.

There were many authors who appreciated that the profession of policeman is one of the most stressful occupations (Kroes, Margolis & Hurrell, 1974; Reiser, 1976; Terry, 1981; Loo, 1984; Dantzer, 1987; Gersons, 1989). In this respect, it was found that police officers show physical symptoms and psychological problems due to stress more often than other workers in other professions (Anshel, 2000).

If we refer to a biochemical approach, according to international research, stress is associated with increased secretion of corticotrophin releasing factor. In turn, increased secretion is associated with hypocortisolemia, meaning a very high inhibition by negative feedback of the hypothalamo-pituitary-adrenal axis.

Functional imaging studies in posttraumatic stress have shown activation abnormalities in several brain structures involved in memory, fear response and spatial-visual processing; these include the hippocampus, amygdala, the anterior cingulate cortex and various regions of the prefrontal cortex.

In short, stress is characterized by intense hormonal changes, massive secretion of adrenaline. There are also morbid changes (hypertension, stomach ulcers, etc.). Psychological stress is caused by prolonged emotions due primarily to frustration, conflicts, anxiety. It causes the weakening of the immune system and homeostasis.

This largely biochemical characterization of stress has been present until recently in various specialized papers based on psychological and neurophysiological studies. Today, with the emergence of quantum psychometry, we can have a more complex understanding of this phenomenon.

It is a passage imposed by the demands of social time as well as the emergence of new sciences and theories: quantum theory, morphogenetic sciences, catastrophe theory, fractal theory, chaos theories, etc.

But let’s get back to stress. Human being as a reaction of the system to all the phenomena of the surrounding world has the following consequences

The Energy field → Psychological level → Physical level

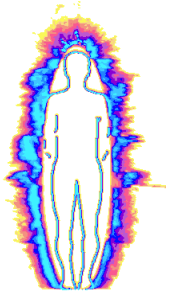
The phenomena occur in this order; in other words, changes in the human energy-information field produce psychological changes that then produce physical changes.

A new method that allows us to measure all three levels at the same time is bioelectrography. If the psychological level through tests and the neurophysiological level through EEG have so far been measured, we now have the possibility to measure all three levels.

The construction of the GDV Camera by Prof. Konstantin G. Korotkov in 1995 (Korotkov, 2002) gave the opportunity to measure, photograph and interpret the structure of the interference energy field distributed in the space of the human body and its immediate proximity. This creates the premises of studying light patterns as informational sources in this space. Recent data on the ability of light to transmit information is an avant-garde area in diagnosing and explaining psychological processes (Popp & Beloussov, 2003) (Gariaev, 2000).

The possibility of measuring the density of human energy in relation to certain psycho-emotional states is for us the opportunity to investigate certain optical models that are highlighted in these conditions.

Each of us wants to know by scientific methods at what stage of health and psycho-emotional level is at a certain moment. One of the best performing devices that can do this in just 2 minutes is the GDV Camera. Working with this device (totally harmless) helps the psychologist in his psycho-diagnosis as a starting point in psychotherapy. Thus, a comparison can be made between the physical state of the body (represented by the body and tissue physiology - filter measurement) and the psycho-emotional stage (represented by the nature of the information flows - measurement without a filter).



The aura measured by the GDV shows the distribution pattern of the photometric field around the body. This field has an ovoid shape and has several layers that differ in vibration, as well as a series of energy chakras that make energy-information exchanges.

The field of a healthy active person is dense, uniform, with slight changes in color from blue to orange and yellow. The first blue field is ethereal, the second orange is emotional and the third is spiritual. Mixing, holes and explosions are indicators of the disorder of the energy field distribution. They indicate the disorder on the mental, functional and organic level, says Korotkov (Korotkov, 1998).

Bioelectrophotography is a method of extracting information from the properties of the biological energy field by nonlinear mathematical analysis of fractal images. This is the difference between GDV and Kirlian Photo. It is a quantum-informational biophysics.

By studying the distribution of fluorescence projection within the acupuncture channels, it appears possible to evaluate the conditions of the separate systems of the body. *It is the first device in the world that allows us to visualize the distribution of energy in space.* There is no doubt that the main source is the stimulation of quantum emission of the electromagnetic field of the subject under study. This emission is amplified by gas discharge manifesting near the surface

of the subject.

Changes in mental and emotional states are accompanied by changes in the electron density at the level of skin contact areas with the device's electrodes.

Experimental research has demonstrated the possibility of two main types of downloads that can cause images:

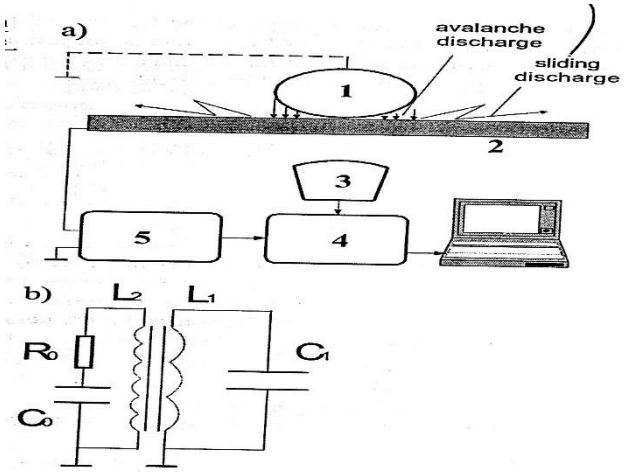
-1) an avalanche of unloading - development in a limited release limitation by a dielectric.
-2) pushing the discharge along the dielectric surface.

The term GDV-gram has been proposed as other electroencephalogram, cardiogram, etc

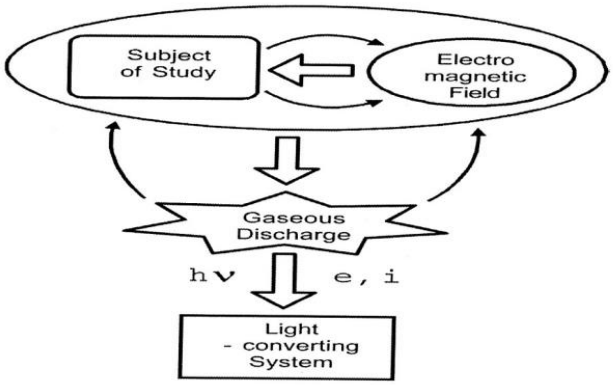
The principle of viewing gas discharge can be described as follows:

Subject 1 is placed on a dielectric plate (2). A conductive transparent grid with a special design is applied to the other side of this plate.

Voltage pulses are then applied by an electromagnetic field generator (5) between the subject (1) and the dielectric plate. Under the high field intensity, the subject emits an electron and photon explosion. In the gaseous medium of contact between the subject 1 and plate 2, an avalanche and a slow gas wave appear which serves as a weak emission amplifier of the subject. This process is very similar to processing amplification in the photomultiplier. With an optical system (3) and a CCD camera (4) (Charge coupled device), fluorescence discharge is converted into video signals that are recorded in photographic form (GDV-gram) or AVI file computer (see figure below)



The viewing process can be synthesized as follows: As a result of the interaction of an electromagnetic field with a subject, an electron and photon emission on the surface of the subject causes a gas discharge. It is important to know that gas discharge itself can influence the stage of the subject by causing secondary emissions and thermal processes



The release of gas depends on the activity of the endocrine glands, on the functioning of the autonomic nervous system (2002, p.12).

Surface stimulation by electrical impulses creates neurovascular responses on both sides of the skin and other parts of the body. The nature of these reactions depends on the nerve-humoral state of the separate systems and organs, which influence the parameters of the image. The gas discharge view method is a computerized recording and analysis of luminescence induced by objects, including biological ones, by their stimulation in the magnetic field and their amplification by gas discharge.

Parameters of the gas discharge image depend on the properties of the object under investigation, and thus analyzing the character of luminescence induced by objects, it is possible to judge the energy state of the object at a specific moment. In this framework, the basic feature of this method is computerized processing, based on modern mathematical methods and concepts, and extracting a concrete conclusion for further analysis or for expert assessments.

It has been proved that the intensity, character and structure of luminescence depend to a large extent on the initial state of the object, the level of its vital processes, the functional state of certain organs and tissues, and the specificity of the pathological processes in case of illnesses. Thus, with this appliance, the following indicators are highlighted:

1. average level of body homeostasis (**integral area coeficient**)

2. provisional energetic power of the body as a whole (**RMS**).

3. geometric distribution of the brightness of the electrodermic points (**fractal coefficient**)

4 balance between the aura surface on the left and the right side (**simetria**).

5. level of stress index (**activation coefficient**).

6. psychosomatic health index (**JMS**)

7. deviation from geometric balance and informational glare (**entropia**)

8. the energetic estimation of the chakras, the energy centers of the body from which the psychological profile results (**emotional-physical imbalance**)

9. the total area of the energy-information field or Aura (**area**)

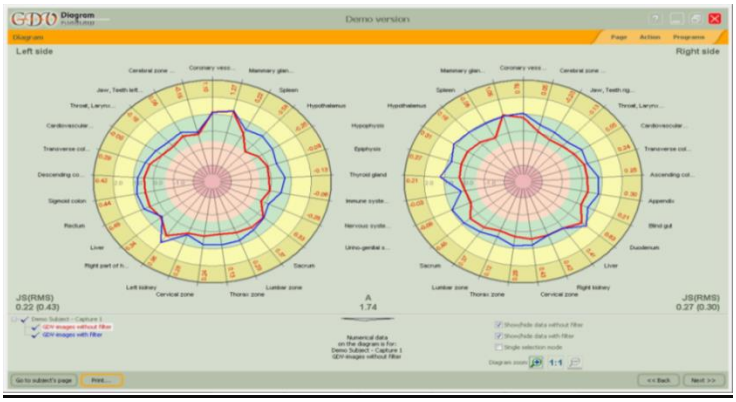
10. characteristics of human behavior by estimating response time to stimuli depending on entropy (**entropie**).

The unit of measurement is J / cm² called energy density (radiometric measure) converted to a number of pixels on the computer screen

The acupuncture points (2002, p. 38) detected by the GDV Acu-Scanner program were considered as one of the parameters of the holographic fractal system of the body structure. Compared to nervous system signals, this channel system in terms of evolution is considered much older. The human meridian system was highlighted by the Korean professor Kim Bong Han (Han, 1964) in 1964 by electron microscope, spectroscope and radiographic techniques using the P32 radioactive isotope. It is present in different parts of the fingers.

The degree of fluorescence (fractality, entropy) in one of the sectors gives the average of other areas that can also serve as parameters

The GDV Diagram program estimates the body's overall energy performance according to the energy level of a relatively healthy person (see picture below).



- *middle ring – normal*
- *inner ring - energetic deficiency*
- *the outer ring - state of excess energy*

- the blue line (from the outside) represents the physical state, and the red color (from the inside) represents the psycho-emotional state.

- the right and left diagrams characterize the relative activity of the cerebral hemispheres on the right (left hand) and left (right hand)

- the graphic deviation on the separate organs and the systems on the normal energy level are not necessarily evidence of a pathological process. This is an estimate of the body's energy activity level at the time of testing. Physical, mental problems may exist when the deviation is present in the same organ in both graphs. The left hand diagram can be associated with the mental state and the right hand diagram of the physical state.

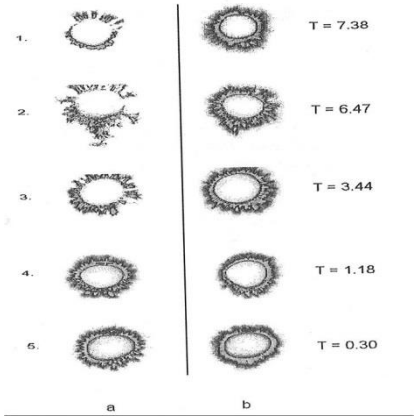
The stress parameter (T) is based on the hypothesis that the difference between the mental and the physical field is the level of stress. Hypothesis confirmed on psychological tests (POMS - Profile of Mood States). The filter distinguishes between the activity of the sympathetic nervous system and the parasympathetic nervous system. The filter allows the research to investigate the energy field. For analysis of the psycho-physiological field, the GDV-gram without filter is taken.

T values are usually on a scale of 0 to 10.

Thus, 0 - 2 = low level, 2 - 4 = normal, 4 - 6 = increased level, 6 - 8 = high level,> 8 = genuine sorrow, altered states of consciousness. This latter level shows significant changes in entropy, homeostasis and the psychosomatic health index.

Studying the GDV Stress Index we can determine the nature of the individual's interaction with the environment. Every strong psycho-emotional tension gives rise to such an activation, which can be interpreted as a stress level.

Thus, informational influences may come from family, labor, money, society or the media and can cause fear, anxiety, stress that leads to stress.



The above figure shows examples of BEO-grams of different individual stress levels (a) without filter, (b) with filter.

ACS is the term used for altered states of consciousness that fundamentally differ in the person's behavior and energy from information mechanisms in normal states of consciousness. These may occur under extreme conditions or under the influence of psychoactive substances or psychoactive procedures, stress, etc. American psychologist Charles Tart tells us (Tart, 1975) that "the distinction between states is given by the modification of the system configuration; changed states of consciousness are characterized by qualitative changes in the system configuration. So the content is not different, but the structure - the way the subsystems interact and the feedback between them. So, consciousness is a sort of psychological energy that acts on substructures by reactivating them. "

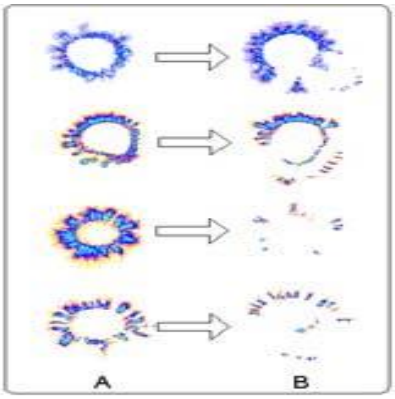
A method for recording the bioelectrographic elements correlated with ACS has been developed, which uses a sophisticated technique, including EEG brain mapping, electro-puncture, quasi-constant brain potentials and GDV method. This

leads to the creation of an unconventional method of tracking a person's condition during hypnosis, meditation, psychological regulation and other types of complex activities (2002, p. 113).

The diagram below shows:

A – GDV- gram of a normal state of consciousness

B - GDV-gram of an altered state of consciousness.



Quantitative estimation of stress levels is extremely important in determining the therapy. The introduction of the filter allows the physiopathological field to be distinguished from the physical one. The higher the stress level experienced by the individual, the greater the difference between the two images. The introduction of the filter cuts the infusion of all processes directly connected to the skin surface. First, sweating and the influence of the gaseous medium above the surface of the skin.

These classical processes are associated with the activity of the sympathetic nervous system and with the particularities of the psycho-emotional status. The beograms taken without the filter represent the sympathetic nervous system, and those with the filter the action of the parasympathetic nervous system. Comparison is the individual's stress tolerance and ability to withstand psychological burdens. This difference is estimated quantitatively by the stress index, which is determined as the difference between the chart parameters with and without the filter.

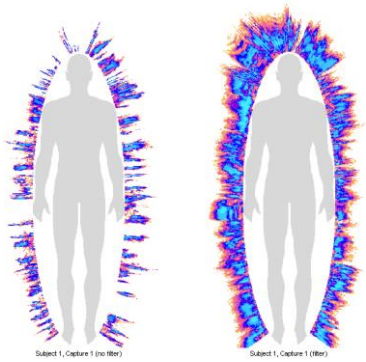
In a study that I conducted at the Faculty of Psychology and Educational Sciences in Bucharest with this apparatus on a group consisting of 19 doctoral students

(70.8% women) for the purpose of measuring the stress indices, the following results were obtained:

- the average value for the stress index is 3, 83 which implies a normal level of stress with a slight tendency to an increased level, the lowest value is 0, 32 and the highest is 7, 69. The subject with index 7, 69 makes exception to the average and repeated measurements are recommended.

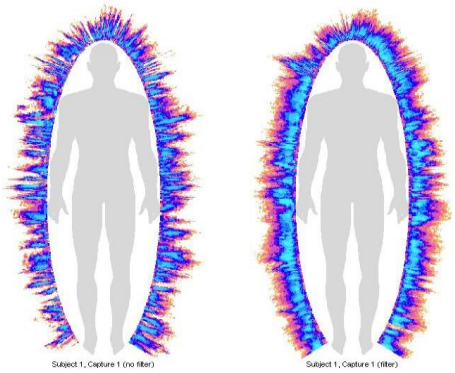
The chakra 4 that links the mind to the somatic has a mean value of -0.04 on a scale of -2 to +2 and shows a balance between the physical and mental balance of the studied group that correlates with the values of stress, entropy and symmetry.

The figure below shows the significant differences between physical aura and psycho-emotional aura in subjects who have experienced an extreme stress index.



Psycho-emotional aura Physical aura

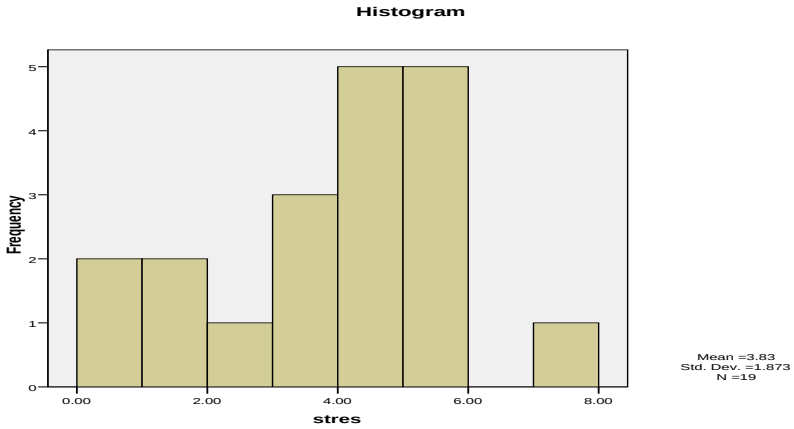
Stress index = 7, 69



Psyco-emotional aura Physical aura

Stress index = 0, 32

Data from SPSS processing:



This new method of psycho-diagnosis has the advantage of reducing measurement time (about 2 minutes per subject), can be processed by SPSS and has a high degree of accuracy and prediction in stress investigation. It is possible to create a new strategy for investigating, monitoring and solving the stress cases (the application part) within the Romanian medical and psychological system as well as between the latest researches carried out at international level.

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