Bioenergy Measurements for Predictive Medical Diagnosis

Pradeep B. Deshpande^{*1}, Konstantin Korotkov², and James P. Kowall³

¹Professor Emeritus of Chemical Engineering, University of Louisville; President, Six Sigma & Advanced Controls, Inc., Louisville, KY 40222 USA

²Professor of Biophysics and Computers, St. Petersburg Federal University of Informational Technologies, Optics, and Mechanics, St. Petersburg, Russia

³James Kowall, MD (Neurology, Internal Medicine), PhD (Theoretical Physics), Eugene, Oregon, USA

Abstract

Bioenergy is a form of energy that makes life possible. Ailments disrupt our bioenergy field but fortunately, these disruptions can occur well before the symptoms of diseases appear in the body. Therefore, a measurement device for the bioenergy field offers the predictive possibility to avoid diseases and to possibly extend the lifespan. These developments couldn't have come at a more opportune time as rising healthcare costs have become a cause for major concern to Governments throughout the world.

Keywords: bioenergy, GDV, sickness, meditation, six sigma. **Introduction**

Human beings have trillion of cells. Every cell has a nucleus which contains forty-six chromosomes that come as 23 pairs (23X,X pairs for females and 23X,Y pairs for males). Between the nucleus and the cell-wall is cytoplasm which contains a gel-like substance called cytosol. The cellular matter includes nucleic acids; DNA and RNA, carbohydrates, proteins, lipids, water, salts, etc. If we break down the cells further, they are made up of atoms which are made of protons, neutrons, and electrons. Atoms are not solid objects and so a question arises, what characteristics of an atom give the specific character to matter. For example, why is iron, iron and why is gold, gold? The answer is, atomic configuration (number of protons, neutrons, electrons). Change the atomic configuration and the specific character of matter will change. Thus, it is perfectly reasonable to think of ourselves as having made of vibrations, frequency and light, not necessarily visible light. This light-energy controls the subatomic particles which in turn controls the atomic particles, and finally the atomic configuration. From the atomic configuration is born the cellular structure. Change the cellular structure and a diseased cell can become a healthy cell. Furthermore, we are born with light-energy which disappears at or soon after death. For all these reasons, the measurement and enhancements of light-energy may hold the key to a healthier life and a longer lifespan.

Human bioenergy comes in two forms, one that comes from food (calorific, physical energy) and the other is the light-energy. Attributes of physical energy do influence the characteristics of one's light energy and so proper diet and physical exercise are important to health as we already know. The characteristics of the light-energy vary from individual to individual because of what we inherit from our ancestors and how we have led our lives till present (diet, exercise, emotional traits).

Measurement of Bioenergy

In the mid-nineties a scientific device to measure the bioenergy of humans was developed in Russia. That device and its current counterpart called Bio-Well are inspired by the ancient Chinese system of energy meridians and utilize the gas discharge visualization (GDV) principle. The device provides a non-invasive, painless and almost immediate evaluation. GDV Bio-Well utilizes a weak, completely painless electrical current applied to each fingertip for less than a millisecond. The body's response to this stimulus is an emission of electrons and light energy photons. The glow of this discharge is captured by an optical Charge Coupled Device (CCD) camera system and then translated into a digital computer file. The data from each test is compared to the database of tens of thousands of subjects to estimate the physiological and psychoemotional state of the subject at a high confidence level. Unlike a traditional medical diagnostic device such as a CT-scan or an MRI which provides information on the subject, Bio-Well provides a statistical response to the question, compared to the database of tens of thousands of subjects at a high confidence level.

Bio-Well produces several interrelated outcomes: (1) Overall energy, measured in Joules, (2) Stress level and balance between physiological & psychoemotional states, (3) Parameters and relative positions of Chakras, (4) Yin Yang meridians energy distribution, (5) Health Status, and (6) Energy reserve. Figure 1 depicts this information for the first author. The Health Status Biogram reflects the current health status of the various subsystems of the subject in comparison to a large number of apparently healthy subjects in the database while the Energy Reserve Bio-gram reflects the potential for future health problems if not corrected. The predictive diagnosis feature arises from the Energy reserve Bio-gram.

The output from the Bio-Well reflects both components of our bioenergy; physical energy and light-energy. This can be verified by measuring the bioenergy of a subject at the start, after rigorous physical exercise, and after meditation. After rigorous physical exercise, the measured bioenergy is seen to decrease which means physical exercises reduce the physical energy component of bioenergy as expected as calories are burned while meditation increases the measured bioenergy which means the light-energy component of bioenergy increases pursuant to meditation.

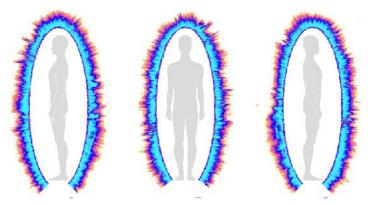


Figure 1(a). Energy Field

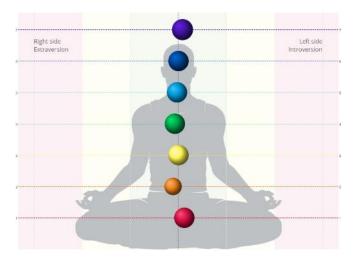


Figure 1(b). Chakra System Target Chakra Size, 5 Joules, Target Alignment along the central vertical line, 100%

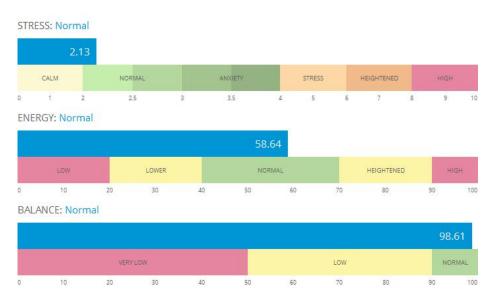


Figure 1(c). Stress, Energy, Joules, and Balance

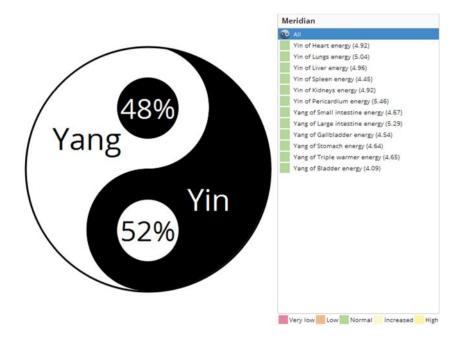
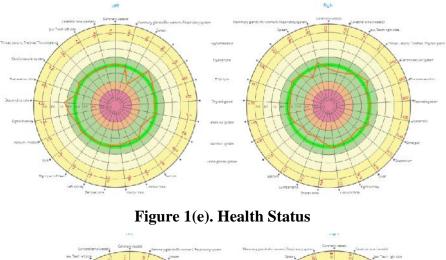


Figure 1(d). Yin Yang Balance



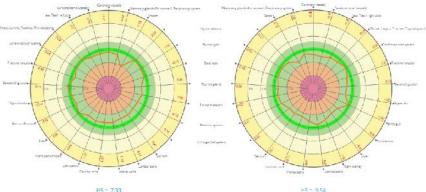


Figure 1(f). Energy Reserve Figure 1. Various Elements of Bio-grams of the First Author on October 18, 2015

Predictive Medical Diagnosis

The energy levels of the various subsystems correspond to specific regions around the circles. The lowest energy levels are at the center of the Bio-grams while the highest energy levels correspond to the outermost circles. The optimal values of energy are shown in highlighted green. The best scenario is when the energy level of the Health Status Bio-gram is optimal and the energy levels of the Energy Reserve Bio-gram are equal to greater than the optimal values for all regions.

Corrective Action

Our bioenergy field is influenced by two factors: Our physiological state and our psychoemotional state. To complicate matters further, these outputs influence each other. Because of these reasons, caution must be exercised in the interpretation of the various Bio-grams. Yogis have maintained for millennia that the mystery of life is all about mastering our emotions, urging followers to always cultivate positive emotions and shun negative emotions. They have also shown that meditation has the unique capacity to endow an aspirant with abundant positive emotions. This wisdom has direct application in Bio-gram interpretations. The idea is to bring our emotions under control with meditation so that we become more centered. When this is achieved, the physiological state alone will influence our Bio-grams making it easier to interpret them.

It may be added that our energy levels vary with the time and so the objective is to produce as good a Bio-gram as much of the time as possible. This is a classical optimization problem with one exception. Here, we ourselves are a part of the problem we are trying to solve. Taking the state of chakras as an example, there are two outcomes for each of the seven chakras: Its size, indicative of the chakra energy in Joules, and its alignment, indicative of its closeness to the central line. For a sufficiently large data set, there are fourteen averages and fourteen standard deviations. The goal of optimization is drive the average chakra sizes towards their ideal value of 5 Joules and % alignment towards 100% while minimizing the fourteen standard deviations.

By way of further corroboration of the ideas presented in this paper, the first author has been making his own bioenergy measurements since October 18, 2015. As an illustration, the Bio-grams of the first author on December 21 2015 before and after a 90-minute session of Pranayam and meditation are presented in Figure 2. The starting Bio-grams in Figure 2 may have been influenced by the Scotch Whiskey he had consumed a couple of nights ago. Also, the Health Status Bio-gram has correctly identified some chronic issues that the first author and his physicians are aware of. Furthermore, the efficacy of the yogic practices in restoring the Bio-grams toward normalcy is evident. Experientially, the first author has realized the benefits. The modern physics explanation of bioenergy, atomic configuration, and meditation presented later in the Discussion section may also be seen to resonate with the material in the paper.

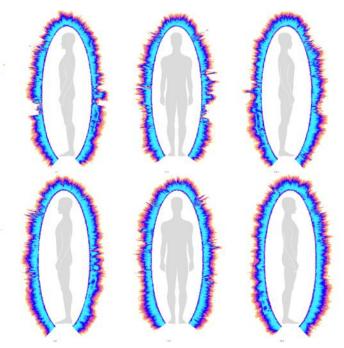


Figure 2(a). Energy Field Before 58 J (Top) and Energy Field After 62 J (Bottom)

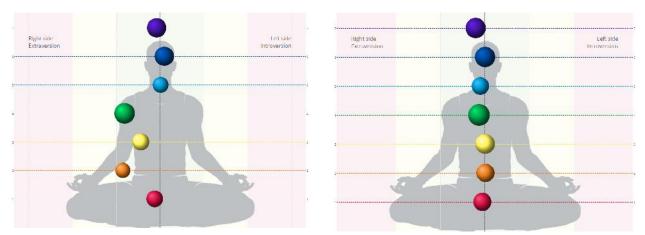


Figure 2(b). Chakras: Before (Left) - Alignment 88%; Average Energy 4 J and After (Right) – Alignment 97%; Ave. Energy 5 J



Figure 2(c). Yin-Yang System Before (Left) and After (Right)

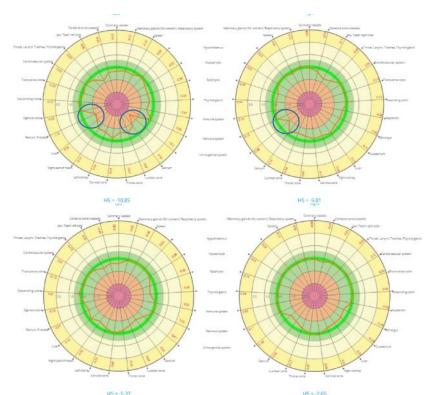


Figure 2(d). Health Status Before (Top) and After (Bottom) - Circles indicate energy deficiency

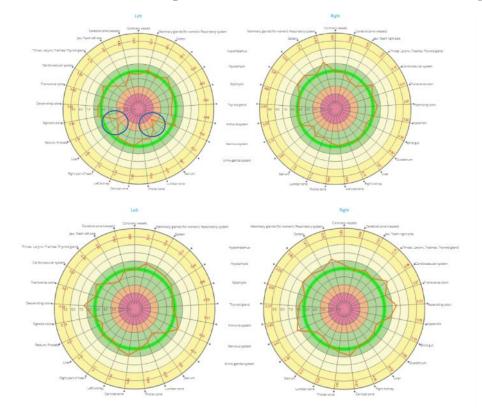


Figure 2(e). Energy Reserve Before (Top) and After (Bottom) - Circles indicate energy deficiency

Discussion

Nature of Information and Consciousness. Modern physics tells us that all the information for atomic configurations, which is called entropy, is encoded in the bound states of fundamental particles. This happens under the influence of the electromagnetic force at the atomic level and the strong nuclear force at the subatomic level. The standard model of particle physics, which includes the electromagnetic, strong and weak nuclear forces, is fundamentally formulated in terms of non- Abelian quantum field theory, while the gravitational force is fundamentally formulated in terms of Einstein's field equations for the space- time metric. The only known mechanism that unifies gravity with the other fundamental forces is a geometrical mechanism, utilizing supersymmetry and the Kaluza- Klein mechanism of extra compactified dimensions of space. The unification of the standard model of particle physics with gravity in a unified geometric theory (along the lines of M- theory ornon- commutative geometry) always implies the holographic principle. The holographic principle fundamentally reduces all the information for atomic configurations as formulated by quantum field theory in a bounded region of space to the bits of information encoded on the bounding surface of that space which is called a holographic screen.

The connection to cosmology naturally arises with unification because there is another force in addition to gravity in the unified field equations, called the force of dark energy. Dark energy is like a force of anti- gravity, and is understood in relativitytheory as a cosmological constant that gives rise to the exponential expansion of space which always expands relative to the central point of view of an observer. Due to the limitation of the speed of light, the force of dark energy gives rise to an observation- limiting and observer- dependent cosmic horizonwith the observer always at the central point of view. If the observer's cosmic horizon acts as a holographic screen, then all the bits of information defining all the atomic configurations defining everything in the observer's world are encoded on the observer's holographic screen. Not only are all the bits of information for everything else in the observer's world. This gives a natural (thermodynamic) explanation for the bio- energy of the observer's body and how this bio- energy is connected to the normal flow of energy for everything else in the observer's world. This also allows us to understand how meditation can naturally influence this state of information for the observer's focus of attention on its world.

Extending this argument further, we can identify the "light" experienced in meditation as the "light of consciousness" emanating from the observer's central point of view. This "light" is reflected off the observer's holographic screen, thereby projecting all images of the observer's world, like the light of a laser projects the images of a conventional hologram. In psychological terms, the light of consciousness is the observer's focus of attention. In this sense, the observer is a focal point of consciousness that arises in relation to a holographic screen. This tells us that both the observer's point of view and its holographic screen arise in an empty space of potentiality called the void. In the sense of Unity, the potentiality of the void (the potentiality to

create an observer's world as projected from a holographic screen and the potentiality to observe that world from the observer's central point of view) can only be understood as undifferentiated consciousness.

Conclusions

Unlike a routine medical diagnostic device such as an MRI or a CT-Scan, the Bio-Well analysis relies on statistical inference at a high level of confidence but the possibility of outliers (false positive or false negative indication of the physiological/psychoemotional state) cannot be ruled out. A large number of papers in reputed science and medical publications attest to the usefulness of meditation for improving health and wellness. Elizabeth Blackburn, the 2009 Nobel Prize recipient in physiology and medicine, is reported to have remarked that meditation may well restore telomeres and help reverse the process of aging.

The availability of a measurement device for bioenergy opens up the possibility of conducting large-scale experiments to scrutinize the findings reported in this paper. It is gratifying to note from the 2011 US News & World Report article that US medical schools are increasingly embracing alternative health programs. These developments couldn't have come at a more opportune time as rising healthcare costs have become a major cause of concern to Governments the world over.

Acknowledgments

This paper is written with the blessings of Gurumahan Paranjothiar and implicit blessings of Baba Shivanand Ji.

References

- [1] Beyond Money and Power (Stress and Burnout): In Search of a New Definition of Success - The Third Metric, Huffington Post Women's Conference, New York, NY, June 6, 2013.
- [2] Bhasin, Manoj K., et al., Relaxation Response Induces Temporal Trasncriptome Changes in Energy Metabolism, Insulin Secretion, and Inflammatory Pathways, PLOS One, 8, 5, May 2013.
- [3] Boyers, David, G. and Tiller, William, A., Corona Discharge Photography, J. Appl. Phys., 44, 7, 1973, p. 3102.
- [4] Bousso, Raphael (2002) The Holographic Principle. arXiv:hep- th/0203101, 2002.
- [5] Chez, Ronald, A., Ed., Proceedings: Measuring the Human Energy Field State of the Science, The gerontology research Center, National Institute on Aging, National Institute of Health, Baltimore, MD April 17 - 18, 2002.
- [6] Deshpande. P. B., Kowall, J. P., the Ultimate Reality and How it Can Transform our World: Evidence from Modern Physics; Wisdom of Yoda, Six Sigma and Advanced Controls, Inc., January 2015 (estimated)
- [7] Deshpande, P. B. and Kowall, J. P., Yogic Perspective on Health, Six Sigma Assessment, and Quantum Physics Approach, Journal of Consciousness Exploration & Research, 5, 3, April 2014.
- [8] Blackburn, Elizabeth and Epel, Elissa, Telomere and Adversity Too Toxic to Ignore, Nature, 490, 11 October 2012 pp. 169-171.

- [9] Epel, Elissa, et al., Accelerated Telomere Shortening in Response to Life Stress, Proceedings of the National Academy of Sciences, 101, 49, December 2004. pp. 17312-17315.
- [10] Fredrickson, B. A., et al., A Functional Genomic Perspective on Human Well-being, Proceedings of the US National Academy of Sciences, July 2013.
- [11] Gefter, Amanda (2014) Trespassing on Einstein's Lawn, Random House, 2014.
- [12] Hoffman, J., How Meditation Might Boost Your Test Scores, New York Times, April 3, 2013.
- [13] Jacobson, Ted, Thermodynamics of Spacetime. arXiv:gr- qc/9504004, 1995.
- [14] Jakovleva E., Korotkov K., Electrophotonic Analysis in Medicine. GDV Bioelectrography research. 2013. 160 p. Amazon.com.
- [15] Korotkov K.G., Matravers P, Orlov D.V., Williams B.O. Application of Electrophoton Capture (EPC) Analysis Based on Gas Discharge Visualization (GDV) Technique in Medicine: A Systematic Review. The J of Alternative and Complementary Medicine. January 2010, 16, 1, pp.13-25.
- [16] Korotkov K.G., Energy fields Electrophotonic analysis in humans and nature, 2012. 240 p. e-book: Amazon.com.
- [17] Korotkov K. and Orlov D., Analysis of Stimulated Electrophotonic Glow of Liquids. www.WaterJournal.org V 2, 2010.
- [18] Korotkov, K., Madappa, K., Orlov, D., New Approach for Remote Detection of Human Emotions; *Subtle Energies & Energy Medicine Volume 19 Number 3 Page 2; July 2010.*
- [19] Korotkov K., Korotkin D. Concentration dependence of gas discharge around drops of inorganic electrolytes. J of Applied Physics, 2001, 89, 9, 4732-4737.
- [20] Landau Meryl D., Medical Schools Embrace Alternative Health, US News & World Report, April 12, 2011.
- [21] Lutz, Antoine, et al., Long-Term Meditators self-induce high amplitude Gamma-Wave Synchrony during Mental Practice, Proc. Nat. Acad. Sciences, 101 (46) Nov. 6, 2004.
- [22] Marchant, Jo, Can Meditation Really Slow Aging, CNN.com, July 10, 2014.
- [23] Orme-Johnson, David W., et al., the Effects of the Maharishi Technology of the United Field, Journal of Conflict Resolution, 32, 4, 1988.
- [24] Pehek J. O., Kyler, H. J., and Foust, D. L., Image Modulation in Corona Discharge Photography, Science, Vol. 194, 263 270, October 1976.
- [25] Paturel, Amy, Meditation as Medicine, NeurologyNow, August/September 2012.
- [26] Susskind, Leonard, The World as a Hologram. arXiv:hep- th/9409089, 1994.
- [27] Wallace, R. K., Physiological Effects of Transcendental Meditation, Science, Vol. 167, No. 3926, 1970.
- [28] Walton, Alice G., How Yoga Might Save the US Trillions of Dollars and Save Lives, Forbes, 7/24/2013.