

# Smart Life Forum

www.smartlifeforum.org

Thursday, June 17, 2010, at 7pm

**Rollin McCraty, Ph.D.**

on

**Heart Coherence and the Earth's Energetic System**

**SHORT PRESENTATION** by Janada Clark, M.A.

## The Truth About Sugar

Janada Clark's passion for wellness began after a 40 pound weight loss (successfully maintained for over 20 years) and a 12 year career with Weight Watchers. Janada was then recruited as Director of Education of ZONE Wellness, associated with the ZONE diet created by Barry Sears. Currently, Janada offers classes within the community and at Stanford as a part-time instructor for Stanford's Health Improvement Program and Work Life Program. Her classes are filled with practical, easy-to-implement tips and strategies for both stress management and healthy eating.

Experts estimate Americans consume almost 175 pounds of sugar per year. On a daily basis you could be eating as many as 350 calories or more from sugar, a food devoid of any nutrition except calories. Why is that? Food manufacturers do an excellent job of hiding the amount of sugar in many grocery basics. Using different names for sugar or labeling a package in such a way that sounds healthy, when it comes to sugar intake, it is "buyer-beware" while filling your grocery cart. Learn important facts about sugar:

- What health problems are caused from sugar?
- How much sugar am I really eating?
- How do I compute the amt of teaspoons of sugar in a particular food?
- What is the recommended amount not to go over?
- What popular and often assumed "healthy" foods are high in sugar?
- What are the many "names" food companies use for sugar?
- Are sugar substitutes Sweet N'Low, Equal, Splenda, Truvia healthy?
- What about foods with sugar naturally present, not added?
- What about sugar alcohols & high fructose corn syrup?
- Tips to sweeten foods without adding sugar or sugar substitutes.
- Tips to control sugar intake.

This presentation will increase your knowledge about sugar, sort out the facts from fiction, and help you make healthier food choices when it comes to your sugar intake.

**Presentation Location:**

Cubberley Community Ctr.  
Room H1

4000 Middlefield Rd.

Palo Alto, CA

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FMBR (Foundation for Mind Being Research) meets Friday, June 18, 7:30 PM, at Unity Palo Alto, 3391 Middlefield Rd. "Egyptian and European Vibrational Research: Discovering the Keys to Life and Healing" with Robert J. Gilbert Ph.D. Members free, \$15 public, \$5 students. More information at FMBR.org .

## Meet Rollin McCraty, Ph.D.



Rollin McCraty, Ph.D. is the Director of Research of the HeartMath Research Center at the Institute of HeartMath. He is also an Adjunct Professor at Claremont Graduate University and Visiting Professor in the Department of Family and Community Medicine at the University of Alabama at Birmingham. A psychophysiologicalist, Dr. McCraty's research interests include the physiology of emotion, with a focus on the mechanisms by which emotions influence cognitive processes, behavior, and health. Findings from this research have been applied to the development of tools and technology to optimize individual and organizational health, performance, and quality of life. He is a Fellow of the American Institute of Stress, holds memberships with the International Neurocardiology Network, American Autonomic Society, Pavlovian Society and Association for Applied Psychophysiology and Biofeedback among others.

He was the principal investigator in numerous laboratory research studies examining the effects of emotions on heart-brain interactions and on autonomic, cardiovascular, hormonal, and immune system function. He has also served as the Principal Investigator (PI) in a number of field studies to determine the outcomes of positive emotion-focused interventions and heart rhythm feedback in diverse organizational and educational settings as well as in various clinical populations. Dr. McCraty and his research team regularly participate in collaborative studies with other U.S. and international scientific, medical and educational institutions; they have worked in partnership with research groups at Stanford University, Wake Forest University, the Miami Heart Research Institute, and Claremont Graduate University among many others. His research has been published in journals that include the American Journal of Cardiology, Journal of the American College of Cardiology, Stress Medicine, Biological Psychology and Integrative Physiological and Behavioral Science.

### Future Speakers:

July 15, 2010, Adiele Tel-Oren, MD. on Toxin Removal

August 19, 2010, Nick Delgado, PhD, on Overcoming Inflammatory Pain, Disease & Fatigue

### About Smart Life Forum

Smart Life Forum, Inc. is a 501(c)(3) California nonprofit corporation whose primary mission is to provide credible health education to the public with an emphasis on optimal wellness, anti-aging medicine, and longevity.

Annual memberships in Smart Life Forum, Inc. and charitable donations are tax deductible to the extent allowed by law. For information on how to join or make a donation, please visit our website:  
[www.smartlifeforum.org](http://www.smartlifeforum.org).

For questions, please contact Mike Korek at (650) 941-3058.

## Main Presentation: Heart Coherence and the Earth's Energetic System by Rollin McCraty, Ph.D.

Many believe that conscious awareness originates in the brain alone. Recent scientific research suggests that consciousness actually emerges from the brain and body acting together. A growing body of evidence suggests that the heart plays a particularly significant role in this process.

Far more than a simple pump, as was once believed, the heart is now recognized by scientists as a highly complex system with its own functional "brain." Research in the new discipline of neurocardiology shows that the heart is a sensory organ and a sophisticated center for receiving and processing information. The nervous system within the heart (or "heart brain") enables it to learn, remember, and make functional decisions independent of the brain's cerebral cortex. Moreover, numerous experiments have demonstrated that the signals the heart continuously sends to the brain influence the function of higher brain centers involved in perception, cognition, and emotional processing.

In addition to the extensive neural communication network linking the heart with the brain and body, the heart also communicates information to the brain and throughout the body via electromagnetic field interactions. The heart generates the body's most powerful and most extensive rhythmic electromagnetic field. Compared to the electromagnetic field produced by the brain, the electrical component of the heart's field is about 60 times greater in amplitude, and permeates every cell in the body. The magnetic component is approximately 5000 times stronger than the brain's magnetic field and can be detected several feet away from the body with sensitive magnetometers.

The heart generates a continuous series of electromagnetic and pressure wave pulses. The time interval between each beat varies in a dynamic and complex manner. The heart's ever-present rhythmic field has a powerful influence on processes throughout the body. We have demonstrated, for example, that brain rhythms naturally synchronize to the heart's rhythmic activity, and also that during sustained feelings of love or appreciation, the blood pressure and respiratory rhythms, among other oscillatory systems, entrain to the heart's rhythm.

We propose that the heart's field acts as a carrier wave for information that provides a global synchronizing signal for the entire body. Basic research at the Institute of HeartMath shows that information pertaining to a person's emotional state is also communicated throughout the body via the heart's electromagnetic field. The rhythmic beating patterns of the heart change significantly as we experience different emotions. Negative emotions, such as anger or frustration, are associated with an erratic, disordered, *incoherent* pattern in the heart's rhythms.

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In contrast, positive emotions, such as love or appreciation, are associated with a smooth, ordered, *coherent* pattern in the heart's rhythmic activity. In turn, these changes in the heart's beating patterns create corresponding changes in the structure of the electromagnetic field radiated by the heart, measurable by a technique called spectral analysis. (Spectral analysis represents a time domain signal in the frequency domain).

We have demonstrated that sustained positive emotions appear to give rise to a distinct mode of functioning, which we call *psychophysiological coherence*. During this mode, heart rhythms exhibit a sine wave-like pattern and the heart's electromagnetic field becomes correspondingly more organized.

\* At the *physiological* level, this mode is characterized by increased efficiency and harmony in the activity and interactions of the body's systems.<sup>1</sup>

\* *Psychologically*, this mode is linked with a notable reduction in internal mental dialogue, reduced perceptions of stress, increased emotional balance, and enhanced mental clarity, intuitive discernment, and cognitive performance.

In sum our research suggests that psychophysiological coherence is important in enhancing consciousness. Psychophysiological coherence facilitates the body's sensory awareness of the information required to execute and coordinate physiological function, and it also optimizes emotional stability, mental function, and intentional action. Furthermore, there is experimental evidence that psychophysiological coherence may increase our awareness of and sensitivity to others around us. The Institute of HeartMath has created practical technologies and tools that all people can use to increase coherence

## Heart Field Interactions Between Individuals

Most people think of social communication solely in terms of overt signals expressed through language, voice qualities, gestures, facial expressions, and body movements. However, there is now evidence that a subtle yet influential electromagnetic or "energetic" communication system operates just below our conscious awareness. Energetic interactions likely contribute to the "magnetic" attractions or repulsions that occur between individuals, and also affect social exchanges and relationships. Moreover, it appears that the heart's field plays an important role in communicating physiological, psychological, and social information between individuals.

Experiments conducted at the Institute of HeartMath have found remarkable evidence that the heart's electromagnetic field can transmit information between people. We have been able to measure an exchange of heart energy between individuals up to 5 feet apart. We have also found that one person's brain waves can actually synchronize to another person's heart. Furthermore, when an individual is generating a coherent heart rhythm, synchronization between that person's brain waves and another person's heartbeat is more likely to occur. These findings have intriguing implications, suggesting that individuals in a psychophysiological coherent state become more aware of the information encoded in the heart fields of those around them.

The results of these experiments have led us to infer that the nervous system acts as an "antenna," which is tuned to and responds to the electromagnetic fields produced by the hearts of other individuals. We believe this capacity for exchange of energetic information is an innate ability that heightens awareness and mediates important aspects of true empathy and sensitivity to others. Furthermore, we have observed that this energetic communication ability can be intentionally enhanced, producing a much deeper level of nonverbal communication, understanding, and connection between people. There is also intriguing evidence that heart field interactions can occur between people and animals. In short, energetic communication via the heart field facilitates development of an expanded consciousness in relation to our social world.

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<sup>1</sup> Correlates of physiological coherence include: increased synchronization between the two branches of the autonomic nervous system, a shift in autonomic balance toward increased parasympathetic activity, increased heart-brain

## The Heart's Field and Intuition

There are also new data suggesting that the heart's field is directly involved in intuitive perception, through its coupling to an energetic information field outside the bounds of space and time. Using a rigorous experimental design, we found compelling evidence that both the heart and brain receive and respond to information about a future event before the event actually happens. Even more surprising was our finding that the heart appears to receive this "intuitive" information before the brain. This suggests that the heart's field may be linked to a more subtle energetic field that contains information on objects and events remote in space or ahead in time. Called by Karl Pribram and others the "spectral domain," this is a fundamental order of potential energy that enfolds space and time, and is thought to be the basis for our consciousness of "the whole." (See [heartmath.org](http://heartmath.org) for further detail.)

Some organizing features of the heart field, identified in numerous studies at HeartMath, may also be shared by those of our hypothesized social field. Each is a field of energy in which the waveforms of energy encode the features of objects and events as energy moves throughout the system. This creates a nonlocal order of energetic information in which each location in the field contains an enfolded image of the organization of the whole system at that moment.

Another commonality is the role of positive emotions, such as love and appreciation, in generating coherence both in the heart field and in social fields. When the movement of energy is intentionally regulated to form a coherent, harmonious order, information integrity and flow are optimized. This, in turn, produces stable, effective system function, which enhances health, psychosocial well-being, and intentional action in the individual or social group.

Heart coherence and social coherence may also act to mutually reinforce each other. As individuals within a group increase psychophysiological coherence, psychosocial attunement may be increased, thereby increasing the coherence of social relations. Similarly, the creation of a coherent social field by a group may help support the generation and maintenance of psychophysiological coherence in its individual members. An expanded, deepened awareness and consciousness results—of the body's internal physiological, emotional, and mental processes, and also of the deeper, latent orders enfolded into the energy fields that surround us. This is the basis of self-awareness, social sensitivity, creativity, intuition, spiritual insight, and understanding of ourselves and all that we are connected to. It is through the intentional generation of coherence in both heart and social fields that a critical shift to the next level of planetary consciousness can occur—one that brings us into harmony with the movement of the whole.

For more information on the Institute of HeartMath's research and publications, please visit [www.heartmath.org](http://www.heartmath.org). Also see [Gcoherence.org](http://Gcoherence.org) for information on the Global Coherence Initiative.