

# **The Heart and the Breath of Love**

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What do women want? What a woman really wants, is to be in charge of her own Heart. (From the Arthurian Myth of Gawain and the Hag)

*Abstract: In this paper, the author develops conceptual links between psychophysiology and the experience of love. Heart rate variability, in particular, is considered for its psychological and spiritual implications. Cultural mythology and spiritual practices are discussed to show the relevance of heart-based practices to an authentic experience of love. The author contends that optimal heart-rate variability, as defined by the Resonant Frequency, is conducive to not only physiological health, but may serve as a portal into what has been traditionally called Open-Hearted Loving.*

## PART I

### **The Challenge of Loving**

The experience and capacity to love genuinely seems to be an integral part of human experience, yet has often been considered magical and quite rare in its appearance. The current statistics show no better than chance probability of a marriage surviving. Increasing numbers of people have chosen to live alone. All too frequently, people are emotionally isolated and unable to bond with another. Many wander from one unsatisfying short-term relationship to another, with no end in site. Often there is anticipation of the new relationship ending before it has really begun. This pattern of disposable interpersonal relationships, traditionally associated with young people in their search for self identity, is increasingly seen among those in the middle years of their lives. Self-help books on relationships are multiplying by the day, and psychotherapists are treating increasing numbers of people with relationship difficulties. This emotionally dysfunctional pattern of non-loving seems increasingly the rule rather than the exception. Why does this basic emotional experience often seem to elude us, and where may we look for more understanding of this human dilemma?

There is a view that Love is more possible in some types of societal systems than others. Referring to life in modern societies in the West, the great psychoanalyst Eric Fromm believed that people capable of Love under the present system of society are necessarily the exceptions, and that the 'art of loving' is rare. He was pointing out the inherent incompatibility of developing intimacy in a society where everything, including the individual, is often judged for their commodity, or market value. The propaganda of commodities engulfing the consumer with images of unlimited possibilities, presents the good life as one in which the choice of things, friends, lovers or careers, should be subject to immediate cancellation when the first difficulties appear. Short of deconstructing present social and economic conditions based on derived value of the individual, and reconstructing society in a more humane way based on inherent human value, what can be done? Is it possible to be a person capable of mature Love? Is it possible to develop a lasting Love relationship?

To move towards a better understanding of the experience of Love, a starting point may be to consider the psychological conditions which are most conducive to experiencing Love. A related question is: Where do we experience Love in ourselves? The answers to these timeless issues are many and varied and largely depend on how the questions have been approached. The scientific approach has typically yielded different answers than the more intuitive approaches as seen in the arts and spiritual practices.

### **The Evolving Scientific Approach**

Historically, the brain and the heart have held central positions in the understanding of human functioning. To Aristotle, the heart was the seat of the soul. Hippocrates and Plato considered the brain to be the seat of our human essence, and agreed that life depends on a subtle energy residing in the heart. The predominant current scientific view is that 'Love' is an emotional state that is primarily generated by the brain interacting with its environment. The brain, in its ability to think and remember, has been awarded the position of greatest importance in our physical bodies. Our knowledge of anatomy tells us that the brain is the command center of the body, and the integrator of bodily systems. There are recent findings, however, which challenge this brain-centered view of human functioning. It is now known that the heart has its own intrinsic nervous system that is complex enough to be considered a 'little brain.' The sophistication of the heart's systems enables it to act independently of the brain at the learning, recall and sensory level. Common pathways between the heart and brain have also been found neurologically, through the transmission of nerve impulses, as well as biophysical connections via pressure waves. Finally, energetic co-penetration between the brain and heart has been found through electromagnetic field interactions. Thus, it appears that there is a growing body of scientific evidence to suggest that the heart plays an important role in brain function.

### **Love -- the Spiritual and Mythic Approach**

The still predominantly brain-centered view of Love, as held by mainstream science, is in contrast to views held by many traditional cultures as well as folk beliefs within our own culture, where the heart is seen as the center of our emotional and spiritual lives. In many cultures, including our own, when someone is asked to point to herself or himself, most people point to the area of the heart. When we speak of good or bad news or being in Love, we speak of how our heart rather than how our brain is effected. Generally, we don't tell another that we Love them with all our head, send them brain shaped cards and candy on Valentines Day, or tell our beloved that we have given our brain to them (Pearsall, 1998).

Definitions of the 'Lover' abound in poetry, as well as in spiritual literature. A number of characteristics of those able to Love well and deeply can be found in each of these bodies of human knowledge. One of these qualities is the capacity to be emotionally available to experience the initial stages of connection with another. This quality has often been spoken about as 'Open-Heartedness,' or the capacity to stand outside of one's ego long enough to emotionally touch and be touched by another. A no less important quality in loving authentically is what has been called in the Zen tradition the 'Long Enduring Mind' (Sasaki, 1975). This quality refers to the courage to abide through the many changes, the 'births' and 'deaths' intrinsic to relationship. A mind lacking this quality is often in a state of monitoring their relationships for 'Ego Capital', that is, a

scorecard is running, recording the pros and cons of the relationship, with the cons often being assigned more emotional importance. Clarissa Estes, the author of *Women Who Run with the Wolves*, holds that “Love does not mean a flirtation or a pursuit for simple ego-pleasure, but a visible bond composed of the psychic sinew of endurance, a union which prevails through bounty and austerity, through the most complicated and simple days and nights” (Estes, 1992). When the ego is directing the interpersonal agenda, the pattern is often “escape-and-hide” when challenges arise. Sadly, some spend all of their years living only on this surface of existence, revisiting this dance of fast beginnings and endings over and over again. In both the North American Native tradition, about which Estes writes, and in Oriental spiritual teachings, this capacity to ‘hold time’ is seen as critical to our relationship with both our deeper Self and with the other. A society devoid of this soulful quality typically encourages fast solutions to life’s most delicate issues. Romantic relationships, quickly formed and disposed of at a similar pace at the first sign of trouble, are the all too familiar sad condition of our culture.

Where does Love reside? It is generally agreed upon among spiritual traditions, that ‘Love’ and ‘ego’ are different ‘Lands’ in the sphere of human functioning. Where ego strategizes, Love embraces. Where ego closes in on, Love opens to. Where ego feels fear, Love feels fearlessness. Where ego finds reasons to run, Love knows the value in staying. Among the Inuit, Raven is the trickster, pleasure seeking and greedy, and symbolically represents the ego. Raven-ego is always vigilant in checking out for the best advantage. Raven-ego is looking for which one is the biggest, which bed is the softest and which Lover is the most trouble free. Raven-ego does not have the patience to learn deep Love, the resilience to endure travel on a not always smooth path. The mythic center of Love is not Raven-ego, but the Heart.

In Buddhist traditions, Heart and Mind can both be referred to with the same term (Chitta in Sanskrit). Mind, in this sense, is not located in the thinking brain. When asked where the mind resides, Tibetan Buddhists usually point to their chest (Welwood, 2002). In the Loving-Kindness or Metta meditation practice, the focus is typically in the area of the Heart (Thera, 1962). The Heart Center has also been considered the origin of Love in the energetic understanding of the person. In a number of yogic systems in Asia, the Heart Center has assumed central importance in the development of loving-kindness or compassion.

Although the Heart is considered the window to true intimacy in many traditional spiritual teachings, it is only when the Heart has been ‘opened’ that it brings the connectedness of Love. The ‘opening’ of the Heart has been seen as the capacity to open oneself, reach out and touch and to be touched by another. But, how does one open the Heart? However the heart ‘opens’, this process has been associated in the spiritual and mythological realms with the Feminine or Receptive, and with a willingness to surrender one’s ego-based identity. In the second part of this paper, we will focus on how we may approach this transformative process.

## PART II

There Is A Way A Way Of Breathing That is a Shame And A Suffocation. There Is Another Way...

A Love Breath,

That Lets You Open Infinitely.

- RUMI

### **The Opening of the Heart -- The Psychobiology of Love**

How do we begin to open the Heart, and allow the unfolding of that unmediated connectedness that is Love? As already discussed, the traditional ways to access and develop the receptive quality of the Heart have included a variety of mind and body practices, among them, meditation and breath control techniques. All of these practices involve sustained attention, and at the higher skill levels, a willingness to 'let go' of our ego-centered views.

What is the connection between 'opening' the Heart and breathing patterns? To answer this question, we must look at the interconnections among how we breathe, that part of the nervous system known as the autonomic branch, and the rhythms of the heart. The autonomic nervous system (ANS) is composed of two parts, the sympathetic and parasympathetic systems. The sympathetic system is associated with the 'fight-or-flight' response, and is activated most powerfully during stress reactions. The sympathetic nervous system is often considered the 'accelerator' of bodily arousal. The parasympathetic system is associated with the 'relaxation response', and performs the 'braking' function of the body's arousal. A branch of the parasympathetic system appears to be associated with physiological regulation related to stimuli of a social nature. This evolutionary development of the nervous system, unique to mammals, seems to be related to the ability to regulate the level of engagement we have with others. In terms of the ability to Love another, this aspect of our nervous system may be a critical physiological substrate (Porges, 1998, 2003).

A chronic condition of epidemic proportions in modern society is a sympathetic nervous system dominance. The chronicity of this high arousal level results in significant stress on the body's systems, and is associated with various pathologies, including immune system dysfunction, cardiovascular disease, gastrointestinal problems, diabetes, and abnormal tissue growth, among others. The psychological states associated with chronic sympathetic over-arousal include anxiety, depression, fatigue, cognitive confusion, forgetfulness, as well as poor attention and concentration. Generally, all of these conditions typically require considerable coping energy and thus engender a chronic state of psychophysical alarm in the individual. This situation often presents such a challenge to the person, that little psychic energy or sensitivity remains to experience and cultivate higher order emotional and spiritual states, such as Love. On the other hand, when the parasympathetic nervous system is dominant, there tends to be an avoidant emotional pattern, a mode of withdrawal from others and one's world. The key to experiencing optimal emotional connectedness and Open-Heartedness is finding the delicate balance between these two parts of our autonomic nervous system.

## **The Nervous System – Heart Connection**

The autonomic nervous system directly affects heart rhythms and patterns. The measure of heart functioning that is of most interest to us here is the variability of the heart's beating. At a physiological level, heart rate variability is due to the synergistic action of the two components of the autonomic nervous system, the sympathetic and parasympathetic branches. The heart's inter-beat interval, or heart rate variability (HRV), has been found to be one of the most accurate measures of inner emotional states. At a psycho-spiritual level, it appears that this variability in the beating of the heart is associated with those factors which 'open' or 'close' the door to the conditions making the experience of expansive emotional states such as Love possible. When the heart's variability is high, physical and psychological processes tend to be more in balance and function with less disruptions, as well as showing greater adaptability to internal (e.g., disturbing thoughts and emotions) and external disruptions (changes in the immediate environment). In terms of nervous system functioning, high HRV is associated more with the parasympathetic arm of the autonomic nervous system, while low HRV occurs with sympathetic (fight-or-flight) nervous system dominance. However, what is most important is finding the optimal balance between these two systems. Elevated HRV makes for a mind and body sensitive enough to sense and express the spectrum of emotional nuances and spiritual connectedness associated with the experience of genuine Love. The cultivation of an increased level of HRV will not ensure the experience of Love any more than opening a window will bring forth a breeze into your home. However, without opening the window, there is little possibility of experiencing the breeze. When the heart shows little variability in its rhythm, there seems to be less psychological 'space' for the experience of higher order emotional states to arise and develop.

## **The Breath-Heart Connection**

If increasing the heart's variability is a portal into creating the internal conditions conducive to the experience of Love, what can we do to facilitate this? The heart's tendency is to follow the beat of what it is surrounded by. It is the internal metronome of our body's biorhythm. The 'beat' of modern society is generally not the beat of Love, but the driving beat that drowns out the subtle rhythm of the currents of the heart opening to the possibility of Love. If we allow the heart to be synchronized primarily with the beat of this world, it is likely that the heart will contract and thus not be tuned to higher order states such as Love. We will still experience the desire for, and attachment to others, but this is not the state of Love, but rather, the workings of Raven-ego.

For several millennia, in those cultures where methods of spiritual practice have reached the highest levels of development, the practice of proper breathing has been used to tune the mind and body to the frequencies of the highest states of consciousness, among which is the experience of genuine Love. Two aspects of breathing are most critical to bringing about a 'coherence' or optimal heart rate variability. One is the mechanics of breathing, which involves an emphasis on diaphragmatic rather than thoracic or chest breathing. But of greater importance, the frequency of breathing plays a critical role in bringing the heart as well as other physiological systems into a condition of coherence, or optimal functioning.

The heart's pattern of following breathing rhythms is known as respiratory sinus arrhythmia (RSA). Heart rate increases during inhalation and decreases during exhalation. Heart rate variability associated with respiration is usually seen in the healthy adult at a breathing rate of 9-24 breaths per minute (Lehrer, Vaschillo, & Vaschillo, 2000). At a slow breathing frequency of approximately 6 breaths per minute, the RSA is increased, which appears to be associated with the strengthening of physiological homeostatic mechanisms and a resulting improvement of disregulation conditions (Gevirtz, 1999; Giardino, Chan, & Borson, 2004; Lehrer, Smetankin, & Potapova, 2000). In the context of spiritual work, it has been found that the ancient practices of yogic mantra and rosary recitation slows the respiration rate to approximately 6 breaths per minute, and leads to significant increases in the practitioner's RSA (Bernardi et al., 2001). Of further interest and relevance to exercises requiring slow, measured breathing, the recitation of poetry as a speech therapy intervention was found to be associated with increased RSA (von Bonin et al., 2001).

### **The Magic Frequency: Resonance**

In examining the relationship between how we breathe, the state of our nervous system and the rhythm of our heart, the connection between the heart and the experience of Love appears more than metaphorical. In fact, there are rhythms of heart rate functioning that seem more 'Love-conducive' than others. Just as there are unique rhythms of the heart associated with the experience of Love, there is a unique frequency of breathing for each individual that brings about the optimal heart-rate variability. This frequency has been called the 'Resonant Frequency' (Vaschillo, 1984). At this individual-specific breathing frequency, heart-rate variability is optimal as the RSA is maximized. In this breathing pattern, the person moves into maximal coherence of physiological systems in the body (McCraty, Atkinson, & Tomasino, 2001). In this state, the nervous system displays balance, and the cardiovascular system shows high levels of flexibility and efficiency in meeting the body's needs. With this increased coherence of the heart, the brainwave patterns also show amplified synchronization of those brainwave frequencies associated with a relaxed, centered state (8-12Hz). This increase in HRV and alpha wave synchronization is usually associated with an increased sense of mental spaciousness and well being. In this state the person learns the foundation elements of Mindfulness meditation, which calls for the suspension of the usual pattern of engagement in the internal dialogue and its concomitant emotions. It is in this state that the individual may experience the beat of Open-Heartedness that allows for the possibility for the unfolding of Love.

How does one know one's unique Resonant Frequency? Although one may use and develop Resonant Frequency breathing with meditation and yogic practices, this individual specific frequency cannot be discovered accurately by these practices. However, with physiological measurement methods, the Resonant Frequency can be easily and quickly found for each person. Following the determination of the individual's Resonant Frequency, short periods of training with specialized respiratory equipment and home practice will enable the person to incorporate this breathing pattern into daily life. It is in this rhythm of the heart and breath contraction and expansion of life's beat, this dance of rising and falling, that the ground may be prepared for the state of Love to unfold and flower. With this marriage of ancient traditions and modern science, the possibility opens of systematically cultivating what may be our highest state of consciousness and emotional experience.

## Conclusion

In conclusion, what can be said of this practice of Resonant Frequency training of the heart? At the physical and psychological levels, we may expect better and healthier functioning as a person. In the realm of the spiritual, this work may provide the ground for the Open-Hearted experience of loving connectedness. At this level, our deepest wells of energy may be revealed, and our sense of self expanded to include another in a genuine state of Loving. It is in this state, that the Lover dies into his Beloved, leaving not a trace behind. In this state of psycho-spiritual resonance the world as you have known it has ceased to be, for there has been a turn around in the very seat of consciousness. The separateness that was once you has ceased to exist. In its place is an Opening of the Heart. This is, in fact, what you have always been, and have now realized to be your true identity.

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