We Are What We Think

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> "We don't see things as they are, we see them as we are."
>
> *-Talmud*

Those of us involved with indigenous healing methods such as Chinese medicine are well acquainted with the mind/body connection. We know through experience that positive states of mind are inherently better for our health than negative states of mind. This is why it may be welcome news that the rest of the world, specifically Western science, is now getting the hard evidence that cultivating positive mental states actually has tangible value.

Over the past several decades, perhaps since Herbert Benson's work in the 1970s on the "relaxation response," there has been slow and steady progress in documenting the power of the mind's interaction with the body. Since the early 1990s through the initiative of the Dalai Lama, there has been a dialogue between top researchers in physics, neuroscience, psychology, medicine, comparative religion and education, and scholars and practitioners of Tibetan Buddhism, to discuss the phenomenon of consciousness.

One of these researchers, Richard Davidson, a pioneer in the field of affective neuroscience, decided to study how the brain physically changes with particular types of meditative states using an experienced meditator. He used the functional MRI (fMRI), a video of MRI images in real time, to view the brain as thoughts/emotions occur. This past year, at the University of Wisconsin at Madison, he used fMRI and a cutting edge EEG to examine Osel, a man who spent many years in retreat doing Tibetan Buddhist practice. Six types of meditation were examined: visualization; one-pointed concentration; generating compassion; devotion; fearlessness; and an open state in which there is no particular goal other than to rest the mind in awareness. Davidson found that of the six different types of meditation Osel performed, the fMRI showed six distinct signature brain states. Different areas of the brain activated with different types of meditation.

Davidson, using EEG studies, previously located two loci in the brain, in the left and right prefrontal cortex. They were affiliated with feelings of happiness and joy on the left, and negative emotions, sadness, anger and upset on the right. His work with Osel showed a significant shift to the left during meditation on compassion, indicating that reflecting on benefiting others can make us happier. This may provide direct physical evidence for the age-old truth that helping others is good for you.

Another series of experiments was performed on Osel and another experienced meditator by Paul Ekman at UC San Francisco. The meditators were instructed to determine the correct emotion portrayed by photos of faces that rapidly flashed before them. Remarkably, Osel and the other meditator scored two standard deviations higher than the norm and far higher than any of the 5,000 other people tested. This would imply that those practiced in meditation may be more perceptive in general, and perhaps more empathetic. In another experiment in Robert Levenson's

lab at UC Berkeley, Osel was exposed to a very loud noise, like a gun going off near the head, to illicit and measure the startle reflex. Osel was able to nearly eliminate the startle reflex. This was unprecedented. Osel found that the open state and the one-pointed focus produced the best results. Ekman and Levenson had previously determined that the more significant the startle reflex, the more intensely people experienced negative emotional states. Clearly, Osel was someone who could modulate negative emotions. The health implications are tremendous.

Heart disease, our biggest killer, strikes people who have none of the "known" risk factors 50 percent of the time. Obviously, something significant is missing from the prevailing belief system about heart disease. That "something" is the effect of our state of mind on the heart. In one study, it was found that the most predictive risk factor for heart disease, beating out high cholesterol and hypertension, was job satisfaction. In other words, not being happy with our lives is a setup for disease. We know this intuitively, and now it is finally coming out of the closet of scientific thought.

The Heart Math Institute in Boulder Creek, Calif., is proving how our state of mind affects the heart. These researchers are able to demonstrate immediate shifts in EKG readings when thoughts alternate from positive to negative. Changes in DHEA and cortisol also correlated with different types of thoughts.

The Heart Math Institute has developed two learnable and teachable techniques that enable people to notice their mood, intervene and alter it for the better. This may be a method for those not already engaged with a meditation practice.

Medical science is being forced to re-examine the dogma about human potential. Not too long ago, it was thought that the brain's neurons were fixed from birth. Now the new concept is neuroplasticity. Neurons can create new connections and/or generate new cells depending on what the brain is experiencing. We can modify our brains with our thoughts! This is what science is now beginning to discover, several thousand years behind the *rishis*, yogis and hermits.

It is time to acknowledge the power of the mind. We must embrace our ability to engage the *shen* and not be afraid to be up front with it. Indigenous medicines operate with this principal *a priori*. As Westerners, we must continuously remember to overcome our patients', and our own, inclination to negate the intuitive, spiritual aspect of our being. We tend to be wowed by fast, noticeable symptom relief, and forget that the most profound shifts in healing come slowly over time. We are conditioned to want dramatic, instantaneous results, and so are our patients. Meditation, yoga and qigong are not quick fixes. Our success as a profession will depend on how well we can communicate to our patients and the general public that what we have to offer is profound, lasting and safe. We now have science on our side.

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