

As yoga continues to grow in popularity, many practitioners are eagerly anticipating the future development of the yoga sciences. Recent advances in Neuroscience, the inclusion of psychotherapy, and developing practices in somatics are streams of understanding that offer possibilities of deepening the channels of yoga. The historic scope of yoga is vast and has been continually reshaped to meet the needs of the times. With this vast scope, what are some unifying themes that can be integrated with Western models of the mind and thought?

In his anthology, *Yoga in Practice (2012)*, David Gordon White highlights the following underlying themes which connect the practices through the ages:

1. Yoga as an analysis of perception and cognition
2. Yoga as the raising and expansion of consciousness
3. Yoga as a path to omniscience
4. Yoga as a technique for supernatural accomplishment

Gazing through the contemporary prism of yoga, how does Modern Yoga Practice (MYP) reflect these themes? How do these themes manifest in our life, society, and world? And how do these unifying themes connect to recent scientific questions and contemporary research?

Lets take a look at the first highlight from White's book.

“Yoga as an analysis of perception and cognition.”

The understanding of perception and cognition is perhaps the final frontier of both yoga science and modern science. Indeed, despite all of society's advances in science and technology, more questions than answers exist into the nature of the brain and mind (are they separate or connected?). Mental illness and various afflictions of the mind continue to rise, yet the treatment of mental illness continues to be lacking throughout the world.

Worldwide there is a need to gain a greater understanding and treatment for those afflicted with mental illness, which has led to organizations such as the Brain Research Through Advanced Neurotechnologies (BRAIN) Initiative, a \$3 billion project which seeks to unlock the secrets of the brain at the neural level by mapping its neural pathways. The goal is to develop instruments that can monitor the electrical activity of single neurons and perhaps find and treat cases where these neurons are misfiring, perhaps stilling the random fluctuations of the mind through new treatments. Yet the BRAIN Initiative is a long way from mapping the neural circuit of the brain and the treatments that may arise from that.

Citta Vritti Nrodha -Stilling the fluctuations of the mind.

The mind is often compared to a mad monkey, running around, not quite sure what it wants, and grasping at whatever it sees. The mind operates by building a hierarchy of patterns through past experiences and interpreting future events through the lens of these patterns, or feedback loops. Mental illness could be defined as a disruption of these hierarchical patterns that results in a distorted view of present and future mental simulations.

Patanjali Yoga teaches that these fluctuations of our mental processes can be treated through yoga. Beginning with external (yamas) and internal disciplines (niyamas) and continuing with numerous prescribed practices to prepare the body and mind for meditation and absorption, the individual participates in process, perhaps gaining a greater understanding of the mind and its operation.

In treating the vulgarities of the mind, modern researchers are looking into ways to directly manipulate the brain to treat various mental disorders. One such method that has been shown as an effective treatment for depression is deep brain stimulation (DBS). Researchers at Washington University Medical School found that probing the area of the brain called Brodmann area 25, and administering electrical stimulation to that area, caused a significant decrease in depression among individuals who had been resistant to other forms of treatment (Kakau, 2013). DBS has also been shown to treat other brain disorders such as Parkinsons and Epilepsy, and while the reason for the treatment's efficacy is still unknown, one theory is that DBS destroys or impairs overactive areas of the brain and is successful in disorders caused by such overactivity (Kakau, 2013).

The definition of yoga is the stilling of the fluctuations of the mind, and current research is validating Patanjali Yoga's (PY) belief that yoga can treat mental illness. There have been thousands of studies on transcendental meditation, all highlighting the potential of meditation to reduce cardiovascular disease; decrease depression, anxiety, and insomnia; reduce stress and pain,; and improve mental functioning (Research at a glance, 2014). Furthermore, exercise and asana have been shown to consistently reduce depression among individuals with chronic depression (Uebelacker et al. 2010). By looking at parts of PY, current research corroborates what the yoga sciences have been saying for thousands of years: yoga is an effective way to analyze perception and cognition. This probably comes as no surprise to the consistent practitioners who, through epistemological knowledge, find similar results in themselves.

So how do we synthesize and integrate the treatments and findings of a Western Medical Model with the epistemological findings of Yoga? Where is the common ground where both of these methods can share and complement the findings of the other? These questions will continue to arise as we move forward, exploring the farthest reaches of the brain. Stay tuned.

References:

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