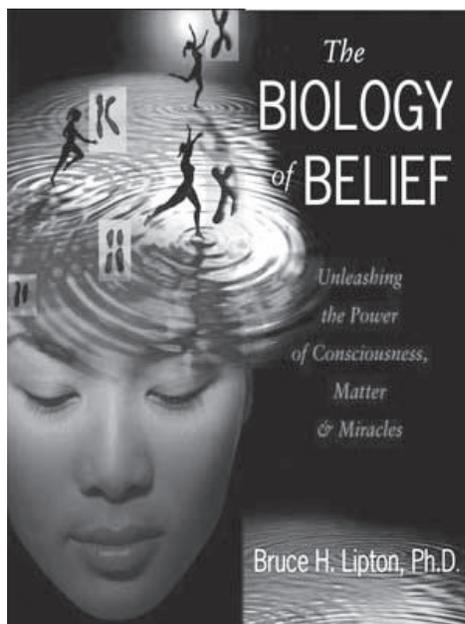


Book Review

The Biology of Belief: Unleashing the Power of Consciousness, Matter and Miracles - Bruce H Lipton

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Dr Bruce Lipton's "Biology of Belief: Unleashing the Power of Consciousness, Matter and Miracles" provides a counter yet scientific view of genetics, evolutionary destiny of humanity and the science of human growth. He presents the idea of Epigenetics, where the genes are modifiable through lifestyle of an individual instead being controlled by the predetermined genetic code. This implies the primary role of the mind which was traditionally ignored by science. In explaining the above



Lipton touches upon diverse topics such as the role of magical membrane, quantum physics, survival mechanisms and the role of parents as genetic engineers.

In Chapter 1, the author describes the idea of 'smart cells and smart students'. By smart students he refers to students in the Caribbean medical school he had recently joined and, by implication, students trapped by

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preconceived notions of their true potential that are grossly underestimated by educators in less than fortunate non-elitist educational institutions. Lipton had earlier moved from an Ivy league school to a lesser known Caribbean medical school where the students were not as well endowed by traditional IQ measures as those he used to teach in his earlier school. Courage and self assurance were assured in his Caribbean students through personal commitment. He gave them total confidence to achieve success. Smart cells are considered as “miniature humans”. Studying cells would make it easier to understand human physiology and behavior. In looking at multi-cellular organisms fractally he suggests that the functions of the body is present even in single cells as they display learning capabilities through memories shaped by environmental experiences. Dr. Lipton compares the cell to a corporation that could change its own environment to its advantage and also work with division of labor internally. Lipton discovers support in Lamarckian theory of organic evolution. It suggests that “evolution was based on an instructive, cooperative interaction among organisms and their environment that enables life forms to survive and evolve in a dynamic world” (p:11). He found that an instructive cooperative interaction with his students transformed his otherwise lesser than Ivy schools students to perform equally well. The Darwinian model of the survival of the fittest dropped and the student body amalgamated into single power, where the stronger students helped the weaker and gained success, much like the behavior of cells.

In chapter 2, the catch phrase is “Its the environment, stupid”. Here Lipton says that “DNA does not control biology and the nucleus itself is not the brain of the cell. Just like you and me, cells are shaped by where they live” (p: 43). In taking such a position he is suggesting a new theory of Epigenetics which would be more relevant than genetics. Lipton argues that genes are not drivers of the future. The future can be modified without changing the blueprint. Factors such as stress, nutrition, environmental influences and emotion play the key role. In studying DNA, until now,

the practice was to only study nucleus by isolating protein. For Lipton this is wrong practice. The crucial role of proteins needs to be included to fully comprehend the working of DNA. These have implications on understanding heredity. Nature and Nurture correspond respectively to genetic mechanisms and epigenetic mechanisms. The role of nature in diseases like cancer and cardiovascular diseases is only 5 percent. In other words only that level of explanation can be found in heredity.

In chapter 3 the author proposes that cell membrane is like a computer keyboard and the cell receives the data through membrane receptors. The cell membrane also contains membrane effector proteins which act as cells' CPU (Central Processing Unit). The membrane protein effector converts the information from the environment into behavioral language of biology. These membranes are controlled by the humans themselves and not by the genes. These membranes have the liberty to edit the data that is fed into cells and thereby choose to become masters of their own destiny, not the victim of genes.

Dr Lipton in his fourth chapter explains the incredible discoveries of quantum physics that are relevant to biology. He avers that the biologists are committing mistakes by ignoring its laws. According to him his certitude about biology and physics was shattered after he realized how the invisible quantum world of Einstein was otherwise ignored. Such discoveries offer new insights into health and understanding and yet medical students and biologists are trained to view human body only as physical machines that operate in accordance with Newtonian principles. He discusses energy research according to which chemical signals are inadequate to explain paranormal activity. Spontaneous healings, psychic phenomena, amazing feats of strength and endurance, the ability to walk across hot coal and acupuncture's ability to diminish pain defy Newtonian biology. He also speaks about his research on human blood vessels where histamine, a chemical signal that initiates the cells stress response can create two diametrically opposed effects, depending on the site where the signal is released. This phenomena point to the situational behavior

of cells that militates against what we would expect from our traditional understanding of chemistry.

Lipton believes that energy research, dealt with in Chapter 5, has been ignored because of the preoccupation of researchers on how drugs suppress body's symptoms ignoring the cause of the problem. In this chapter Lipton assails the trillion dollar pharma industry which according to the author caters to its gross commercial interests rather brazenly. Lipton goes on to explain the importance of "belief" in healing. He provides examples of hypnotism curing "incurable diseases" and challenges the established scientific wisdom concerning the ancient religious practice of fire walking. He says that the measurement of the coal's temperature and the duration of contact with human body would suggest considerable harm. But when humans undertake the mission with the "right" belief there is no bodily damage. Lipton explains about conscious and subconscious mind and explains how signals flow and generate emotions in the conscious mind. According to him the conscious mind is the creative one and subconscious mind is the repository of stimulus-response memories derived from instincts and learned experiences. According to Lipton, Placebo effect is real and deserves serious study in the medical school which is perceived as a threat to the pharmaceutical industry. If the power of mind can heal one's sick body, why drugs physicians and hospitals? Likewise Nocebos too can be as powerful as the placebo effect. The negative words of the doctor can create huge undesirable impact in the patient's mind causing deterioration in health. Therefore teachers like Buddha and Jesus have been telling the same story for millennia, and now science is also pointing in the same direction. It is not our genes that primarily control our lives but our beliefs.

Taking a more technical view, in Chapter 6, Lipton deals with the HPA (Hypothalamus-Pituitary-Adrenal) Axis which mobilizes protection against external threats. When there is no threat HPA axis is inactive and when there is threat, Hypothalamus sends signal to the pituitary gland which organizes 50 trillion cells to deal with the impending threats. He

speaks about fear that kills performance and relates it to the medical students from the Caribbean. Stress during examinations paralyzes the students who, with trembling hands, mark wrong answers because due to panic the information acquired cerebrally cannot be accessed.

In the final chapter, Lipton exhorts parents to be genetic engineers. To develop healthy brains he advises that infants need a nurturing environment which will activate the genes and parents will continue to act as genetic engineers even after the birth of their child. This is a corollary of the importance he gives to Epigenetics. Lipton says that “you are personally responsible for everything in your life, once you become aware that you are personally responsible for everything in your life. One cannot be ‘guilty’ of being a poor parent unless one is already aware of the above-described information and disregards it. Once you become aware of this information, you can begin to apply it to reprogram your behavior. “(p:148). He also says that the children’s genes reflect only their potential but not their destiny and it’s the environment that allows them to develop their highest potential. The most potent growth promoter for the humans is love and not the biggest toy, fanciest school or the highest paying jobs. He says, “A lifetime without love is of no account; Love is the water of life; Drink it down with heart and soul” (p:151).

Biology of Belief is an unusual book. It is a must read for contemporary educators and parents. The book if read with attention would transform our mental models of what constitutes performance and drivers of performance.

Reference

Lipton, B. H. (2005). *The Biology Of Belief*. New Delhi: Hay House Publishers (India) Pvt Limited.