



## Mind Over Genes: The New Biology

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Earlier in my career as a research scientist and medical school professor, I actively supported the perspective that the human body was a "biochemical machine 'programmed' by its genes. We scientists believed that our strengths, such as artistic or intellectual abilities, and our weaknesses, such as cardiovascular disease, cancer or depression, represented traits that were preprogrammed into our genes. Hence I perceived life's attributes and deficits, as well as our health and our frailties as merely a reflection of our heredity expression.

Until recently, it was thought that genes were self-actualizing...that genes could 'turn themselves on and off.' Such behavior is required in order for genes to control biology. Though the power of genes is still emphasized in current biology courses and textbooks, a radically new understanding has emerged at the leading edge of cell science. It is now recognized that the environment, and more specifically, our perception (interpretation)of the environment, directly controls the activity of our genes. Environment controls gene activity through a process known as epigenetic control.

This new perspective of human biology does not view the body as just a mechanical device, but rather incorporates the role of a mind and spirit. This breakthrough in biology is fundamental in all healing for it recognizes that when we change our perception or beliefs we send totally different messages to our cells and reprogram their expression. The new-biology reveals why people can have spontaneous remissions or recover from injuries deemed to be permanent disabilities.

The functional units of life are the individual cells that comprise our bodies. Though every cell is innately intelligent and can survive on its own when removed from the body, in the body, each cell foregoes its individuality and becomes a member of a multicellular community. The body really represents the cooperative effort of a community of perhaps fifty trillion single cells. By definition, a community is an organization of individuals committed to supporting a shared vision. Consequently, while every cell is a free-living entity, the body's community accommodates the wishes and intents of its 'central voice,' a character we perceive as the mind and spirit.

When the mind perceives that the environment is safe and supportive, the cells are preoccupied with the growth and maintenance of the body. In stressful situations, cells forego their normal growth functions and adopt a defensive 'protection' posture. The body's energy resources normally used to sustain growth are diverted to systems that provide protection during periods of stress. Simply, growth processes are restricted or suspended in a stressed system. While our systems can accommodate periods of acute (brief) stress, prolonged or chronic stress is debilitating for its energy demands interfere with the required maintenance of the body, and as a consequence, leads to dysfunction and disease.

The principle source of stress is the system's 'central voice,' the mind. The mind is like the driver of a vehicle. With good driving skills, a vehicle can be maintained and provide good performance throughout its life. Bad driving skills generate most of the wrecks that litter the roadside or are stacked in junkyards. If we employ good "driving skills" in managing our behaviors and dealing with our emotions, then we should

anticipate a long, happy and productive life. In contrast, inappropriate behaviors and dysfunctional emotional management, like a bad driver, stress the cellular 'vehicle,' interfering with its performance and provoking a breakdown.

Are you a good driver or a bad driver? Before you answer that question, realize that there are two separate minds that create the body's controlling 'central voice.' The (self)conscious mind is the thinking 'you,' it is the creative mind that expresses free-will. Its supporting partner is the subconscious mind, a super computer loaded with a database of programmed behaviors. Some programs are derived from genetics, these are our instincts and they represent nature. However, the vast majority of the subconscious programs are acquired through our developmental learning experiences, they represent nurture.

The subconscious mind is not a seat of reasoning or creative consciousness, it is strictly a stimulus-response device. When an environmental signal is perceived, the subconscious mind reflexively activates a previously stored behavioral response...no thinking required. The subconscious mind is a programmable autopilot that can navigate the vehicle without the observation or awareness of the pilot—the conscious mind. When the subconscious autopilot is controlling behavior, consciousness is free to dream into the future or review the past.

The dual-mind system's effectiveness is defined by the quality of the programs carried in the subconscious mind. Essentially, the person who taught you to drive molds your driving skills. For example, if you were taught to drive with one foot on the gas and the other on the brake, no matter how many vehicles you owned, each will inevitably express premature brake and engine failure. Similarly, if our subconscious mind is programmed with inappropriate behavioral responses to life's experiences, then our sub-optimum 'driving skills' will contribute to a life of crash and burn experiences. For example, cardiovascular disease, the leading cause of death, is directly attributable to behavioral programs that mismanage the body's response to stress.

Are you a good driver or a bad driver? The answer is difficult for in our conscious creative mind we may consider ourselves as good drivers, however self-sabotaging or limiting behavioral programs in our subconscious unobservedly undermine our efforts. We are generally consciously unaware of our fundamental perceptions or beliefs about life. The reason is that the prenatal and neonatal brain is predominately operating in delta and theta EEG frequencies through the first six years of our lives. This low level of brain activity is referred to as the hypnogogic state. While in this hypnotic trance, a child does not have to be actively coached by its parents for they obtain their behavioral programs simply by observing their parents, siblings, peers and teachers. Did your early developmental experiences provide you with good models of behavior to use in the unfoldment of your own life?

During the first six years of life a child unconsciously acquires the behavioral repertoire needed to become a functional member of society. In addition, a child's subconscious mind also downloads beliefs relating to self. When a parent tells a young child it is stupid, undeserving or any other negative trait, this too is downloaded as a 'fact' into the youngster's subconscious mind. These acquired beliefs constitute the 'central voice' that controls the fate of the body's cellular community. While the conscious mind may hold one's self in high regard, the more powerful unconscious mind may simultaneously engage in self-destructive behavior.

The insidious part of the autopilot mechanism is that subconscious behaviors are programmed to engage without the control of, or the observation by, the conscious self. Since most of our behaviors are under the control of the subconscious mind, we rarely observe them or much less know that they are even engaged. While your conscious mind perceives you are a good driver, the unconscious mind that has its hands on the wheel most of the time, may be driving you down the road to ruin.

We have been led to believe that by using will power, we can override the negative programs of our subconscious mind. Unfortunately, to do that, you really have to emphasize the word 'power,' for one must keep a constant vigil on one's own behavior. The moment you lapse in consciousness, the subconscious mind will automatically engage and play its previously recorded experience-based programs.

The subconscious mind is really a tape player. There is no observing entity in the subconscious mind reviewing the behavioral tapes. Consequently, there is no discernment as to whether a subconscious behavioral program is good or bad...they are just tapes. The subconscious is strictly a playback machine, perceived stimuli engage preprogrammed behaviors. In fact, people upon seeing their own subconscious programs play out frequently say something like, "That guy just pushed my buttons!"

In contrast to the power of the conscious mind, the subconscious mind is a million times more powerful an information processor. Also, as neuroscientists emphasize, the conscious mind provides 5% or less of the cognitive activity during the day. Ninety-five to ninety-nine percent of our behavior is directly derived from the subconscious. Hence the use of the word 'power' in the concept of will power, it takes significant effort for the conscious mind to keep tabs on the subconscious behavior. Positive thinking is primarily effective if the subconscious supports the conscious intention.

The problem with trying to reprogram the subconscious is that we fail to realize it is playing behavioral 'tapes.' To understand why conscious awareness does not readily change subconscious programs, consider this instructive analogy: I provide you with a cassette tape and you put it into your player and push the play button. As the tape plays the program, you realize that you do not like it. So, you yell at the tape player to change the program, you ask it to play something different.

After awhile of not getting a response, you yell louder and get angrier at the tape player because of the lack of a response to your request. Then when it seems hopeless, you beseech God to help you change the program. The point is simple, no matter how much you yell at the tape player it will not change the program. To change a tape, you have to push the record button and then rerecord the program incorporating the desired changes.

There are two ways out of the problem. Firstly, we can become more conscious, and rely less on automated subconscious programs. By being fully conscious, we become the masters of our fates rather than the 'victims' of our programs. This path is similar to Buddhist mindfulness. Secondly, we can use a variety of new energy psychology modalities that enable a rapid and profound reprogramming of limiting subconscious beliefs.

These new energy modalities provide the ability to rewrite limiting perceptions (beliefs) and self-sabotaging behaviors using processes that are mechanistically similar to pushing the record program on the subconscious mind's tape player. With conscious awareness, one can actively transform the character of their lives into ones filled with love, health and prosperity. The use of these new modalities provides a key to personal growth and transformation. A variety of energy psychology modalities, such as Psych-K, Holographic Repatterning and BodyTalk, are among the variety of programs that can be found on the web.