

Epiphany-A Personal Journey Toward Longevity

An epiphany is frequently described as an experience of sudden and striking realization. In Christianity, the Epiphany refers to the realization that Christ is the Son of Man. The word epiphany originally referred to insight gained through the divine. Today, popular implication remains that an epiphany is supernatural, when the manifestation seems to come suddenly from the outside.

Generally, the term is used to describe breakthrough scientific, religious, or philosophical discoveries. However, the concept can apply to any situation in which an enlightening experience allows a problem or situation to be understood from a new and deeper perspective.

The secular concept of epiphany owes its literary popularity to James Joyce, whose novel "A Portrait of the Artist as a Young Man" tells of manifestations incorporated into literary fragments that spark change of direction or life's condition. For Joyce, the soul of the most common object held potential spiritual radiance.

Despite the transformative imagery, for most of us, a modern epiphany is likely the result of great reflection and long periods of study, work and doubt. Doubt that can best be erased by personal encounter, encounters that may occur over considerable time. We are all exposed to experiences capable of sparking enlightenment but not everyone recognizes the opportunities.

Perhaps Bishop Marianne Budde of the National Cathedral in Wash. DC expressed the concept best at the memorial service for Neil Armstrong. "It has been said that each of us has in our life at least one moment of insight, our Burning Bush, if you will, an otherworldly, time-stopping experience that somehow succeeds in getting through to us, the insight that, if we let it, will carry us through and set course for the rest of our life."

Certainly, fascination for flight was that Burning Bush for Neil Armstrong.

Looking through the lens of history I can visualize many moments, in retrospect, when a manifestation, a radiant revelation was encountered only to be lost in the rush of business or the lack of suitable insight. Yet, fortunately, I have been blessed by continuous exposure to great thinkers, writers, and philosophers like my two friends and the other club members who join us on Monday evenings for a paper and the frequent opportunity for reflection.

I can recall one moment of insight that succeeded in provoking a course of study and observation that has, over a period of more than 50 years, caused great impact on my life. This personal epiphany began as a result of exposure to a brilliant teacher, scientist (physiologist) and physician who was Professor of Medicine at Harvard Medical School. Alexander Leaf was chair of the Department of Medicine and Physician in Chief at the Mass General Hospital, Harvard's single largest Department, then cradle to 5 Nobel Laureates and home to 560 MDs and PhDs. scientists. Leaf was enormously successful in performing research to expand the knowledge base and transmit that knowledge to generations of physician-scientists.

Despite these enormous achievements Alexander Leaf, at the pinnacle of his career, became dissatisfied with his life's direction. The beds of his hospital service were filled with patients who suffered recurring heart attacks, inoperable cancers, chronic alcoholism, diabetes, and dementia. Alexander Leaf had observed in his travels that coronary artery disease was practically non-existent among nearly 3/4th of the world's population. Cancer incidences varied greatly as did many other chronic diseases. He concluded that many of these conditions might be prevented. Yet, he and his physicians waited in their offices and hospitals until patients came with their diseases well advanced. The accepted response was the application of increasingly expensive technology that provided mostly palliative relief. He concluded that a program in prevention was needed. Leaf resigned as Chair of Medicine and organized a new Department of Preventive Medicine. He returned to the research laboratory to pursue preventive cardiology.

Observations from Leaf's travels and epidemiology led to a 1973 publication in National Geographic that documented the existence of several populations where citizens lived extraordinarily long and healthy lives. The common features of the longevity groups were five:

1. Remote geography.
2. Caloric deprivation in early childhood.
3. Plant based nutrition.
4. Hard physical labor and body fitness.
5. Extended participation in community life as wisdom figures.

Alexander Leaf became an early advocate for nutritional changes and exercise to prevent heart disease. His discoveries relating to human longevity were visionary. More importantly, he inspired a new order of medical practice based on the concept of preventive medicine.

Subsequently, a new discipline has been created by followers who have propose dietary, supplemental, physical, mental and environmental practices deemed to prevent or reverse the ravages of heart disease.

As a result of his epiphany, Alexander Leaf shared the excitement and stimulation of science and discovery well into his tenth decade. His example as a healthy mentor led me to gather, as models of behavior, a collection of friends and colleagues who exemplified the behavior of Leaf's population. The results of observing these centenarians have confirmed that his principles can be achieved in our urban lives.

The National Geographic revisited longevity in 2005 in "Secrets of Long Life", a cover story written and researched by Dan Buettner. Buettner coined the term Blue Zones to identify communities where common elements of lifestyle, diet and outlook led to an amazing quantity and quality of life. Through extensive global research Buettner elucidated the secrets of people who lived well beyond a decade longer than their neighbors. Thus, he documented that it was no longer necessary to live in an isolated culture or geography to enjoy the benefits of diet and exercise. Buettner documented that right behavior and thinking was necessary to create a culture of long life.

Right thinking, hummm, you may ask why I have not discussed the obvious, namely, the impact of tobacco use on health and longevity. Its simple, probably my first epiphany was not appreciated at the time it was presented. Imagine this scenario. The year is 1948 and I am 12 years old when my father, A North Carolina tobacco farmer offered me a proposition. " If you will refrain from the use of tobacco until age 21, I will give you a new car." I was more than shocked because every adult and most children in my community used tobacco in one or more ways. The most admired and photogenic icons of the screen and sports world displayed their brand preference in the media of the day. Smoking and sharing a cigarette was among the sexiest of cinema images. However, my father seemed to know intuitively that the use of tobacco was bad for our health and he was willing to offer a powerful motive to create a moment of enlightenment.

More than a decade later international news was created when the American Cancer Society and the Surgeon General of the US produced evidence that smoking causes lung cancer and could lead to an accelerated risk of heart disease. While driving my Chevy Impala, I wondered how my Dad was so smart. Today, we know that elimination of exposure to tobacco smoke and other uses of tobacco products is the most important preventive measure in restricting the incidence of blood vessel disorders and lung afflictions including cancer.

Age and reflection led me to appreciate my father's wisdom and prepared me to be receptive for exposure to Alexander Leaf and the other opportunities for a unique epiphany.

Only a few times in history has the New England Journal of Medicine, which enjoys world-wide distinction, published a major article by a layman. The publication, "Anatomy of An Illness, that appeared in the December, 1976 issue was written by Norman Cousins, editor of the Saturday Review. This report was subsequently amplified in a book written by Cousins(1979). In my opinion, this book gave the principal stimulus to a movement that is today known variously as Holistic, Integrative or Complimentary Medicine.

At the center of Cousin's philosophy was the concept of the human mind and body as a single entity possessing the attributes of a natural apothecary. According to Cousins, the life force may be the most powerful and least understood force on earth. "Therefore, one should never underestimate the capacity of the human mind and body to regenerate even when prospects seem most wretched."

Cousin's personal story relived his battle with a life threatening auto-immune disorder that he conquered with the aid of laughter, vitamin C infusions and a cooperative physician. Here, in his story, was for me an epiphany that has been a source of enlightenment to enhance my life experience. Namely, that hope and the natural drive for survival are among the most important exercises in the human life force. This natural drive to live well and hope for survival as described by Cousins is capable of mobilizing the body's natural mechanisms to resist disease.

Today, even under most wretched conditions, we retain the biologic and psychological constitution to generate responses to meet the most challenging biological and chemical agents. Cousins likened this force to the physician inside each of us. Cousins concluded that all doctors will be wise to listen carefully to the inner forces and align their practices with the expression of concern and hope uttered by the patient. If this concept is true, improvement in the health care system will be

most efficacious when citizens are empowered to assume responsibility for their own well-being. Then great gains can be made by educating the citizens by the most effective methods available today. This education must create knowledge that will change attitudes governing the practices of tobacco, drug use, nutrition and other personal behaviors. Because we now know that behavior far exceeds our genome in determining personal health and longevity. Observation and mounting epidemiology documents that this opinion is valid. Our citizens are eager to become aware of more scientific approaches that will allow healthy choices. They want to forge alliances with many new providers of education and information that promise healthy and life changing experiences.

A final epiphany story is most recent and one that holds much hope for those who have listened and followed these glimmerings for longevity. This revelation is so critical because it carries the potential for making longevity really worth living.

In 1928, the master brain anatomist Santiago Ramon Y Cajal proclaimed, "That in adult brains, the nerve paths are fixed, ended, immutable. Everything may die, nothing can be regenerated." The Cajal principle held that brain neurons were unique because they lack the ability to regenerate. The Cajal dogma held sway for more than 75 years. It was refuted when new techniques to study cell proliferation demonstrated neurogenesis in the brain of adult mammals. Radio-labeling of neuronal DNA and advanced brain imaging provided conclusive evidence, at a molecular level, that birth of new neurons can occur in the adult human brain. Four decades of research progress culminated in the breakthrough publication by Gage and Kemperman of the Salk Institute in 1998. They demonstrated that neurogenesis can be induced under enriched living environmental conditions. This newly recognized phenomenon occurs principally in the hippocampus of the temporal lobe where the new stem cells are nurtured. Subsequently, evolving connections from the memory brain to the frontal cortex have been tracked. The implications for this revolutionary research are momentous, certainly an epiphany.

Unless you are a neuroscientist, you may not have heard about this remarkable story and its repercussions. No new drugs or surgical devices have evolved to market status. Yet, the world of wellness bloggers has seized the scientific data to support several behavioral models. The models are designed to effectively increase neurogenesis and impede the development or advance of brain disorders associated with ageing. Progress in this agenda is mandatory. It is calculated in a recent Study by the Rand Corporation that within the first half of the Twenty-first century, the economic and emotional impact of dementia alone is projected to exceed the cost of heart disease and cancer combined. The recent proposals by the

administration to dedicate \$100 mil to map the brain's activity and establish a National Alzheimer's Plan document the evolving political interest.

I believe that optimism and attitude may be more effective than either plan. There can be no question that we must prepare to deal with challenges to remain healthy and enjoy our longevity. We now recognize that behavior can alter or trump the DNA of our genes in negative or by highly favorable mechanisms.

The discovery that behavior can influence the human genome has spawned a science called Epigenetics, a science that will have lasting consequences on our lives. A science that can help us understand the effective behavior to combat the chronic diseases associated with ageing.

Through proper nutrition, physical and mental exercise, social and spiritual friendships, we can build internal reserves for healthy living in our urban Blue Zones.

The wisdom from a favorite quotation from the Book of Sirach 6:14-16 teaches:

“Faithful friends are a sturdy shelter: whoever finds one has found a treasure.
Faithful friends are beyond price; no amount can balance their worth.
Faithful friends are life-saving medicine; and those who fear the Lord will find them.

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