The convergence of science and spirituality is of critical importance to the world today. Human knowledge of natural phenomena leading to the creation of technological inventions have led to a world with powerful tools, earth transforming structures, and life destructive weapons. Human industrial inventiveness has imposed an amazing super structure upon nature which must be questioned and confronted. Humanity is at a crossroads because the effects of human scientific inventiveness threaten life on earth. Will humanity learn to use its creativeness for the benefit of life or to continue following the path too often chosen: “creating for the sake of creating?” Because it can be done, it should be done. Or, should it? I welcome this Round Table Conference as a courageous dialogue. Humans, homo sapiens, must learn to face threatening realities with the truth of the facts and the consequences. Maturity can overcome denial and manipulation.

We must ask what wisdom is there in the assertion that simply because it can be created, it must be created. What are the guides to human creativity? This is the concern of ethics and morality. Spirituality helps inform and guide right conduct. The insights, gained from millennia of contemplation and reflection about human meaning in the universe, on planet earth, and with animate beings, contribute to wisdom, understanding, and right living. To bring the wisdom insights together with the inventiveness of science is the human challenge today. The challenge has the utmost urgency because life on earth is at stake. Human inventions and the consequences of human creations may result in global destruction.

The great civil rights leader who became a world peace leader, Martin Luther King Jr., put it this way in his last book in 1967: “Where do we go from here, chaos or community?” He had chosen Gandhi’s way of nonviolence to lead a moral revolution against racism, social injustice, and ultimately war. Like Gandhi, he gave his life because he believed that truth and love were the ways to be human. On the evening before his assassination, Martin addressed the Memphis garbage worker audience and said the words: “choice between nonviolence and nonexistence.”

Gandhi found his way from the spirituality of ancient and modern religious insights, faith and creed. Gandhi’s principles were not from dogma and ritual, but from belief in the ultimate truth which pervades every atom of creation. Gandhi’s core method is expressed in Satyagraha, Ahimsa, and Tapasya (Soul Force, Nonviolence or better Love, and Suffering.) His way stemmed from the Hindu “Sat”, meaning “truth, reality, that which is.” Gandhi made his life a life of experimenting with truth. Gandhi’s science was rooted in faith, what we call spirituality. Gandhi also made a dire observation: “We must refuse to wait for generations to furnish us with a patient solution which is ever growing in
seriousness. Nature knows no mercy in dealing stern justice. If we do not wake up before long, we shall be wiped out of existence.”

Martin Luther King Jr.’s question and M.K. Gandhi’s way give the opening light for our Round Table Conference to share with the world leaders and peoples. Chaos or community? Truth, Love, Service.

Three global threats to human existence are Global Climate Change and Nuclear Weapons, and industrial society’s dependence upon depleting resources, especially liquid fossil fuels and water. These threats are the result of human decisions, the creations of the human mind and are rooted in scientific inventiveness without adequate wisdom. It appears that world consciousness has been unable to perceive the threats sufficiently. Scientists and some knowledgeable experts in these realities are stating that time for reversing the effects is near exhausted. Even the scientists and experts regularly become shaken by the events of climate change.

Global Climate Change has reached the “tipping point.” To continue adding carbon dioxide (CO$_2$) and other greenhouse gases to the atmosphere at this time will lead to irreversible conditions. The earth has gone from 275 PPMs (Parts per Million) in 1000 AD to 386 PPMs at present. James Hanson, world expert in global climate change from NASA (The National Aeronautic and Space Act), has warned that the world must cut back on its emissions of carbon dioxide by 80% by 2020, more urgent than previous warnings. 350 PPMs is now the “tipping point.” The earth has already exceeded this. This is the reason for the urgency. The United Nations International Panel on Climate Change (IPCC), led by Chair, Rajendra K. Pachauri, has also issued detailed warnings. Pachauri says “We swim or sink together.” Al Gore has been touring the world with his presentation, “Inconvenient Truth.” Rajendra and Gore shared the Nobel Peace Prize. Observers say we cannot continue “business as usual.”

The second threat to human existence is the agricultural, transportation, and industrial system dependent upon conventional oil. The threats can best be understood through the concepts from Peak Oil. The present surge in gas and fuel prices is a visible sign that the human demand for liquid fuels is increasing beyond the capabilities of fuel production. With demand at 3% increase per year and supply expected to decrease at a similar rate, simple mathematics indicate a huge gap growing exponentially. Understanding this threat requires clear perception of the role which this convenient, easy to acquire fuel has played in the rise of industrial society over the last hundred years. The next decades will bring great sorrow and pain to humans and other living species unless societies choose to change the fossil fuel dependent way of life now. While civilizations have collapsed and disappeared due to the loss of sustenance, humanity has never faced a problem of this magnitude. A primary effect of peak oil is FOOD for sustenance, food as produced by the fossil fuel intensive industrial agricultural model. The second major effect is transportation. The recent gas price surge and food riots due to costs in recent months are but early harbingers of over dependence upon oil and natural gas.

The growing scarcity of water and other natural resources are also serious concerns.
Nuclear weapons threaten human life with a world wide Armageddon should nuclear war break out. The dark shadow could have disappeared with the end of the cold war. But, the United States of America chose to continue its superpower status with nuclear weapons as a psychological weapon and physical weapon to assure its hegemony position over the global economy. Now, the United States has made nuclear weapons its policy under “full spectrum dominance.” The policy makes nuclear weapons an extension of conventional weapons to be used in war and as a preemptive option. Nuclear weapons have proliferated and verge on full scale nuclear arms race. The United States is extending its dominance to space. Satellites have already had a major role in the Iraq and the Afghanistan wars.

The third threat to human existence must be analyzed in relation to its twin: nuclear power. Nuclear power is considered an antidote to global climate change by some people (mostly those who see it as lucrative for profit) and as an energy source to replace oil. It is not an antidote in the long run because the nuclear power infrastructure is intensive in fossil fuel use. This intensive fossil fuel use to facilitate nuclear power contributes to atmospheric gases and will accumulate in scale like the use of natural gas. Also, the mining and production of uranium for enhancement for weapons and nuclear fuel is lethal to life due to the effects of radiation. In producing nuclear power radiation is emitted as waste. Cancers and other health effects result. Man made low level radiation spreads throughout the environment leading to human and species’ demise. It has been shown that low level radiation merges with human DNA to be passed on to the generations when ingested within the human body. Finally, nuclear wastes are not being safely contained. No disposal solution has been found. (Depleted Uranium, U238 etc. has also been used in conflicts with deadly effects upon humans and the environment.)

Due to the global nature of these three threats, it is urgent that humans rise up to address the causes and pursue the remedies. Time is of the essence. Humanity has been warned.

Humans can create new human societies with the wisdom and the technical know how at our disposal. It is a matter of will.

I want to further spell out the three global threats for clarity of understanding.

We have been made aware this summer that the North Pole will be free of ice for the first time in modern geophysical history, an effect and a cause of further global warming. In addition, the following are from Plan B. 3 by Lester Brown with the Earth Policy Institute (Plan B. 3 analyzes the situation and suggests sustainable solutions.):

- The eight warmest years have all occurred in the last eight years.
- For seven of the last eight years, the world has consumed more grain than it produced; grain stocks are now at a historic low.
- One fifth of the U.S. harvest is now being turned into fuel ethanol.
- One third of reptile, amphibian, and fish species examined by the World Conservation Union are considered to be threatened with extinction.
• Grain yields increased by half as fast in the 1990’s as they did in the 1960’s.
• Life expectancy in sub-Saharan Africa is lower than it was in the late 1980’s.
• Today’s economically recoverable reserves of lead, tin, and copper could be depleted within the next 26 years if their extraction expands at the current rates.
• Nearly half of the annual global military budget of $1.2 trillion is spent by one country – the United States.

These indicator facts must be further analyzed. We must look at the United States as a leading cause for the world predicament. Over the years, since World War II, the United States with 5% of the world population consumed between 25 and 40% or the world resources. The U.S. leads the way with oil consumption at over 20%. This is unjust when considering the fact that 1.8 billion of the world’s population exists on less than $2.00 per day. The United States must be challenged.

As an example of the world trends today, India can be cited. India and China with one third of the world’s population are following the lead of the United States in terms of developing a “consumer society.” This is unsustainable and grossly contributes to the three threats noted in this paper. The Public Broadcasting Station through its May 2008 program, NOW, illustrated the trend with “Rising India.” NOW provided this analysis:

• 583 million: The forecasted size of India’s middle class in 2025, swelling over ten times its current approximate size of 50 million.
• 291 million: This number of people who are expected to move from desperate poverty to a more sustainable life by 2025.
• 5.3 %: How much average real household disposable income (income minus taxes, adjusted for inflation) is projected to grow each year in 2025, when it is expected to reach $6,977.
• Fifth: Ranking of India’s consumer market in the world by 2025 just behind the United States, Japan, China, and the United Kingdom, India is currently 12th largest market.
• $378 billion: Total value of India’s food, beverages and tobacco market as forecasted in 2025.
• Alcoholic beverages: The market in India that is expected to grow faster than the food, non-alcoholic beverages and tobacco markets. The market for alcoholic beverages is expected to grow by 9.6 percent annually…
• 13.4 % Annual growth rate of the apparel sector by India’s urban middle class to 2025…
• 5 million: The number of new telephone lines currently added every month, more than the total number of phone lines contained in all of India before 1990.
• 12 times: Amount communication consumption in India will grow from 2005 to 2025…housing and utilities is expected to triple …to $145 billion.
• $2500: price of new car…automotive industry…explosive growth.
• 10.5%: Annual growth rate of the consumer fuel market, which is expected to be worth $162.8 billion by 2025…
• **Medical tourism**: Sector that will continue to become increasingly important as patients travel to India to...low-priced treatments...compared to the West. While a cardiac procedure can cost from $40,000-$60,000 in the U.S., it costs only $3,000-$6,000 in India.


Population size is the major additional factor to resource availability. India’s Upper and Middle Class will approach 300,000,000, which is the U.S. population. NOW optimistically states that 1,000,000,000 people will be lifted out of poverty during this period. In contrast to India expected decrease, poverty in the U.S. is steadily increasing, the middle class is shrinking, and wealth is concentrated in fewer hands. While wealth distribution is a crucial issue, the effects of resource consumption are the primary concern in this paper. The Western capitalist model is not viable, not sustainable for the world. The expectations of the figures cited by NOW are illusionary, illusionary for India, for China, for the United States, for the world.

In keeping with our investigation into science and spirituality, we turn to Gandhi and others for inspiration and for application to solving the life threatening issues.

Gandhi discovered his principles from the religions of the world. He found his identity as a Hindu with clear vision in South Africa, realizing that truth, derived from sat, meaning “reality, that which is,” is the way to authentic meaning and life. “Where there is untruth, truth exists; where there is death, life exists; where there is darkness, light exists; Thus, we have truth, life, light. God exists.” From this core understanding Gandhi developed his vision. The vision included the view of humans self-guided and self-directed from within.

*Swaraj* became his guiding principle for India and village life. Gandhi defined civilization in terms of “self-direction.” “Self-direction” is to be accomplished through the discipline acquired by the practice of “single-pointed meditation,” as stated explicitly in Gandhi’s bible, the Gita. Gandhi explained this view in the “simple little book,” *Hind Swaraj*. He formulated a flattened social system based on village life as experienced in the 700,000 villages of India. Individual dignity defined by swaraj was expressed in the village life, where villages worked together for the benefit of all. He showed the way for economics and the dignified way with the spinning wheel. Gandhi believed that India would show the world the power of nonviolence by being faithful to this heritage.

Present day India has chosen another path by the pursuit of the Western capital intensive paradigm coupled with modern technology. Yet, India is conflicted because movements inspired by Gandhi and its historical spiritual heritage challenge the path of modern India. The world is discovering that the materialist consumptive approach is a dead end, that new vision arising from ancient and modern wisdom points in a different direction.

We come to the crux of the modern crisis, a crisis of the West which is becoming a crisis for the world. For the author of this paper, Thomas Merton expresses the dilemma best. In writing about the non-violence of Gandhi, Merton introduces the “one-eyed giant” of
the West, which went into America, Asia, and Africa with “domination without understanding.” The West could abstract and investigate reality to create the industrial revolution with its technological outcomes, but had lost its ability to root its inventiveness in universal truth. The West severed its knowledge and skills from ancient wisdom, historically known as God. “God is dead,” -- in the words of the 1960s. The West needs to find its other eye. The Catholic monk, Merton, stated in 1964 that the “crisis” of the West is this one-sided vision and that Asia too had lost its bearings and is loosing its identity. Thomas Merton died in Thailand addressing monastic spiritual leaders from the East and from the West about this understanding in 1968.

The Dalai Lama, too, has been consistently interacting with scientists to uncover the ways and means to bring together science and spirituality. He shows the methods used to gain reality consciousness from contemplation. His reality insights are tested by experiential authentication. By comparing these methods with the scientific methods of the West The Dalai Lama attempts to bridge the gap and show the benefits of each method. According to The Dalai Lama’s insights, science and spirituality converges like “the universe in an atom.” By identifying modern critical issues he insists on the importance of ethical principles through this convergence of science with spirituality.

Another example of science and spirituality converging is internal human functioning as being promoted by Jain discipline of “preksha mediation.” Here, biology, neurobiology, and mind-body anatomy are applied to discipline individual human behavior according to ethical standards. For the Jain “ahimsa” is the ancient law governing all human activity. The Jain leaders attempt to save humanity from self-destruction with preksha meditation.

I offer two other sources for insight into human behavior which are not yet in the mainstream behavioral sciences, but which offer clinical methods to curing the world of its violence. Students of Ernest Becker’s thought and the Ernest Becker Foundation are pioneering a multi-disciplined approach to understanding violence. (Becker received the Pulitzer Prize in 1974 for Denial of Death.) Rooted in psychology, anthropology, sociology and theology the insights show how the “dark side” of human behavior is generated and maintained by “immortality needs.” Violence occurs when humans defend their symbols of immortality with lethal weapons. Second, the field of “psychohistory” has been focusing on child rearing as it leads to adult violence and war, and indicate how the loving practice of child rearing can lead to wholesome societies and, ultimately, to world peace. Violent child rearing creates internal unconscious memories which emerge in certain situations to cause violent actions. Loving therapeutic interventions and wholesome child rearing practices are necessary to creating a “culture of peace.” The insights from these two general and developing sciences are critical to future peace.

These examples of science and spirituality mentioned above are further developed in my book to be released during August, 2008: THE AMERICAN GANDHI, My Seeking Truth With Humanity at the Crossroads. India and Gandhi have given me a means to say to humanity that the present world is ill and the near future looks very bleak, but that the answers for a mature human society are at our service and that we can avoid collapse and total catastrophe if we act now.
In conclusion, the work another Christian monk from the West who came to India must be mentioned. Bede Griffiths spent his adult life seeking understanding from science and spirituality. He focused on the concept of “advaita.” Kuruvilla Pandikattu shows Bede Griffiths belief that “advaita” or monism, as opposed to dualism, is the root of all religious expression in India. Through this understanding Kuruvilla promotes “dialogue as way of life.” We are at a crossroads. Our choice is “chaos or community” according to Martin Luther King Jr. Humanity must overcome its fears and anger, its illusions and delusions, its greed and violence.

Global climate change, exhaustion of oil and natural resources, war with nuclear weapons threaten all life on earth. Humans have the means to the fully human way of truth, love, suffering as courageous service. Humanity can use its wisdom to apply science to overcome this triple threat.