## **Varieties of Boundary Crossings**

#### V. V. Raman<sup>1</sup>

#### Introduction

Boundary-crossings are valuable in many ways. Sometimes they may even be essential for survival. In the complex world in which we live boundary crossings occur in a variety of contexts: Among the sciences, among religions, between science and religion, among cultures, within cultures, and so on. Normally every of us, whether professionally or individually, functions within circumscribed boundaries. Most of our thoughts, actions and behavior are within some boundaries. This is necessary for efficiency, personal security and self-confidence. It is also constrained by our capacities and resources. However, there arise situations when we have to go beyond the boundaries: for enrichment, understanding, and peace.

In this lecture, I propose to explore the variety of contexts in which boundary crossings occur, as well as their impacts, some beneficial and others not so. I will also indulge in some linguistic boundary crossing as I discuss the subject.

#### **Boundary Crossings in Different Spheres**

David Hilbert famously said that mathematics knows no race or geographical boundary [Die Mathematik kennt keine Rassen oder geographische Grenzen]. This is true of love and music also. But this is not the case in many other contexts, we need bridges not just between scientists and literati, but between physicists and biologists, cosmologists and theologians, theoreticians and common citizens, moral philosophers and soldiers in the battle-field, social reformers and traditionalists, evolutionists and creationists, cultural anthropologists and practitioners of the cultures studied, even between cartoonists and ardent religionists who demand everyone in the world to be subject to the laws of blasphemy of their own religion.

Our challenge is as much to foster boundary crossing in the best sense of the term as to cope with the tremors that have resulted from the boundary-less movement of people. In the current world, it is not only the one who has crossed boundaries for livelihood that has to adjust, but also the one into whose territory the other has crossed. It is difficult to deal with situations where one has to adjust to new values and cultural rules. It is equally difficult to understand and respect, if not agree with, the worldviews that others hold dear, and be sympathetic to their deepest

<sup>&</sup>lt;sup>1</sup> **Vaharaja V. Raman** is a philosopher, physicist, and writer. He has served the UNESCO as an educational expert, and taught at the Rochester Institute of Technology for more than three decades before retiring as an Emeritus Professor of Physics and Humanities. Since the 1990s Professor Raman has been very involved with the emerging academic field of Science and Religion. He is the author of fourteen books, has reviewed more than 350 books, and has published papers in ZYGON, the international journal on science and religion, in Science and Spirit, and other scholarly journals. vvrsps@rit.edu



concerns. This responsibility often falls on the stronger much more than one those who feel victimized.

#### **Snow's Two Cultures**

Recall S. P. Snow's celebrated lecture on *The Two Cultures* of fifty years ago. Snow warned of a growing rift between scientists and specialists in the humanities. He was shocked that not many humanists could state the second law of thermodynamics which, in his view, was the equivalent of knowing a Shakespearean play. Snow was right in that lack of understanding between influential groups in society is not healthy. But he was off the mark in imagining that problems arise only if poets and politicians, composers and literary critics, historians and philosophers were not familiar with each other's fields. It is fair to say that the world can get along fine without grasping quantum mechanics or the structure of DNA as long as the beneficial outcomes of those breakthroughs come down to the people who have not had the benefit of studying wave equations, group theory and molecular biology.

Indeed, what is unfortunate is that the chasm between Snow's two cultures has persisted, even deepened. New problems have arisen because of misunderstandings between different cultures that vie for recognition and influence in our complex world, and between different segments and people within cultures on some of the fundamental worldviews that shape civilization. While it may be all right for practitioners in various spheres to work in their respective areas with little appreciation or understanding of the myriad components that fuel human societies, confusion of each other's values and beliefs, and of what science is all about has landed us into conceptual chaos.

## **Boundary Crossings in Science**

In the history of science, we find back-and-forth movements between unity and division. Science started as a systematic study of natural phenomena, and splintered into specialized disciplines like physics, chemistry, and biology. These were subdivided into astronomy, geology, organic and inorganic chemistry, physiology, etc. Then there were boundary crossings which gave rise to such disciplines as geophysics, physical chemistry, genetic archaeology. Those who cross boundaries may bring new insights, expand the field, or initiate new ones. So we have interdisciplinary and transdisciplinary sciences. Thus crossing boundaries can be productive as well, as in fields like neuroscience, molecular biology, and astrophysics.

Boundary crossings in scientific disciplines cannot be avoided because the natural world is an integral whole which has been segmented and fragmented primarily for our convenience in analysis. It is inevitable that we uncover the threads that subtly interweave it all into a coherent and seamless quilt. That was and still is the dream of the reductionist school, and that is what the TOE (theory of everything) is all about. As Albert Einstein said, "the supreme task of the physicist is to arrive at those universal laws from which the cosmos can be built up by pure deduction." It may even come to pass that in this way the dichotomy between the sciences and the arts will dissolve to reveal a splendid totality in all its complex interconnectedness.

#### **Science and Society**

Academic scholars and scientists are primarily involved in explorative and creative works. But many of them are also engaged in socially relevant research and activities as in the humanities and social sciences. In our interconnected world no one can afford to remain isolated. Natural scientists need to consider the impact of their work on the rest of society. It would be detrimental to society if natural scientists have no appreciation of history and philosophy, if they are indifferent to the nature, scope, and potential of human knowledge, or how society regards science; and if they care not for the ethical implications of their work.

Social scientists are concerned with matters close to the heart of lived life. They often reinforce their work with results from natural sciences. Whether in politics, economics or history, insights from science are often valuable. Any meaningful academic discipline can only be enriched by knowledge of developments in science. T. S. Eliot said, "Every experience is a paradox in that it means to be absolute, and yet is relative." However, the idea of relativity of knowledge needs to be grasped appropriately. Or else, all knowledge and ethics will be trivialized into unreliable relativity.

#### **Boundary Crossing and Academic Territoriality**

Specialists don't appreciate outsiders dabbling in their fields of expertise. It is difficult for them to take seriously a stranger dabbling in their hallowed domain. What is not always recognized is that the newcomer has two advantages. She is not fettered by perspectives to which the specialist is conditioned. The new-comer comes with an expertise in another field that might provide new insights into the problems confronting a different field. But serious boundary crossing is impossible between science and pseudo-science, except in a trivial sense. Niels Bohr once quipped that he had a good-luck charm in his office because he was told it brought luck even to those who did not believe in it. ["Jeg er ikke overtroisk, men jeg har forstået, at det bringer lykke, enten man tror på det eller ej."] Astronomy and astrology can never mesh. The goal of academic territoriality is to preserve the integrity of disciplines.

There is also a huge gulf separating the ethereal world of the ivory tower and the practical world of work and sweat. Though academics, especially in the social sciences, are concerned with these, intellectuals are shielded from the realities of the struggle of the common man to make a living. As Henrik Ibsen said in one of his plays, "A thousand words will not leave so deep an impression as one deed" ["Ikke tusen ord seg prenter som én gjerning spor."]. There are often more words than deeds from academia.

### **Cultural Boundary Crossings and Globalization**

Since ancient times, traders and travelers have gone to distant lands and brought from them knowledge and goods to their own countrymen. They have done cultural boundary crossing, and were among the first to engage in cultural boundary crossing. Often they also brought back impressions of and information on alien cultures. Hieun Tsang, Alexander and Al Biruni were only some of the many such names that figure in history. Like Morco Polo's suitcase, some

people crossed boundaries from station to station to learn about other cultures ["Sono una valigia e giro di stazione in stazione ....."].

Contemporary globalization is the most dramatic instance of boundary crossing in history. It involves economics, science, technology, culture, religion, politics, and more. Though it has had some positive effects, it has also caused many problems: It has facilitated economic exploitation: Modifying Karl Marx's evocation to the workers of the world, globalization says: "Capitalists of the world, unite! You have a lot to gain through cheap labor." Globalization has also led to intercultural penetration, and the displacement of cultures. It is one thing to enjoy Dutch cheese, Belgian beer, French perfume and Argentinean wine, and quite a different thing when a country and landscape are inundated with the signs and symbols of alien cultures.

#### Diversity, Multiculturalism, and Boundary Crossing

There is extraordinary diversity in the variety of substances that have emerged from barely a hundred chemical elements. There is diversity in the flora and fauna that throb with life and beautify the world. There is also diversity in the cultural expressions of the human family as well. As Antoine Delamotte noted, diversity is a very pleasant thing. Uniformity leads to boredom. [C'est un grand agréement que la diversité... L'ennui naquit un jour de l'uniformité."] From the dawn of history, humanity has split itself into countless groups speaking different languages, embedded in different cultures, affiliated to different religions and sects, and deeply bound to different historically and racially conditioned loyalties. Each group was, and to a large extent still is, like a garden unto itself, providing security, excitement, and enrichment to those within it.

Multiculturalism was a crowning affirmation of the twentieth century. Its thesis is quite simple: That it is important to nurture, appreciate, and respect all cultures. Associated with this is the sense of belonging to the world at large. In the 17<sup>th</sup> century Christiaan Huygens proclaimed that the world was his country and science his religion. ["De wereld is mijn Land, Wetenschap mijn Godsdienst."] Long before that in the mid second century the Latin playwright Terence declared, "I am a Man: I deem nothing pertaining to Man as foreign to me." [Homo sum humani nil a me alienum puto."] Many centuries ago, the Tamil poet Kanian wrote: "It is all my town, where I'm in. Whoever they are, they're also my kin." ["yAdum UrE yAvarum kELIr."]

And yet, it is no secret that there are many people who speak and write against multiculturalism today. Why is this so? Why is such a beautiful, noble, and enriching idea receiving a bad name and reputation sometimes? It turns out that multiculturalism has been playing a silent role in the conflicts tormenting the world today, because of boundary crossings and non-crossings also. Contrary to what one could have hoped, diversity has not lead to harmonious co-existence and meaningful interactions. From the most ancient times, groups have fought with groups, nations with nations, and religions with religions. It is not surprising that multiculturalism which is now touted as the mind-freeing model for the modern world, is also creating conflicts within societies. Few idealists who initiated the idea would have expected this.

Cultures are no longer islands of closed systems with only occasional glimpses into alien varieties. In today's world, cultures rub shoulders on the global arena in a hundred different

ways. TV screens bring into living rooms images and actions of distant peoples and exotic lifestyles. We are no longer dealing with interactions between cultures, but with interpenetration of cultures, often with superficial knowledge of one another. It is too early to foresee what the longrange consequences of all this will be. Goethe said, "Culture which smooth the whole world licks, also unto the devil sticks." ["Auch die Kultur, die alle Welt beleckt, hat auf den Teufel, sich erstreckt."] Actually, it is the devil that sometimes sticks into cultures.

One important reason for all this is that the commendable idea of multiculturalism did not emerge under happy circumstances. It arose in a context in which minority populations in some countries began to protest their status as second class citizens and denied basic rights and looked down upon. This circumstance gave rise to movements in which marginalized and disenfranchised groups began to demand equal recognition and the same respect and regard that the majority reserved for itself.

Such demands slowly led to the idea that every culture deserves to be treated with dignity. Associated with this is the demand for reparations for past mistreatments. These are some of the factors that injected unpleasantness in the exercise of multiculturalism. This situation within countries soon spread to the world at large.

### **Western Hegemony**

During the past four centuries, European imperialism and colonization had affected the economies and sovereignty of many peoples on earth. One may wonder why negative attitudes persist more than half a century after European colonialism was dismantled. As Laurent Testot summarized it, the little peninsula of Europe, off the immense Euro-asiatic continent, dominated the world economically, politically, and militarily from the fifteenth to the twentieth century. [L'Europe, petite péninsule excentrée de l'immense continent eurasiatique, a dominé politiquement, économiquement et militairement le monde, du XVe au XXe siècle.] A similar situation had prevailed several centuries earlier during the cultural, religious, and imperialistic expansion of the Islamic Arabia. But once the countries into which the dynamic Arab civilization had intruded were fully assimilated within its religious framework, the people ceased to feel any animosity towards the erstwhile invaders: indeed, they became one and the same people. With European imperialism the situation was different. Few of its victims were assimilated into European culture or religion before Europe retreated. As a result, international multiculturalism has become somewhat tarnished, because it includes decidedly negative attitudes towards Western culture in many parts of the world.

Indeed, though much of the world has gained political freedom, the hegemony of the West persists in the global village. First, there is its continuing greater military and economic strength. The navy and armed forces of some Western countries have their imposing presence in distant corners of the globe. The economies of the world are still tied to the power and performance of Western nations. It is the West that is dominant in international organizations. It is the West that dictates whether some nations can or cannot have nuclear weapons. All this is slowly changing, and all the brashness that the West has been enjoying this long will likely move to Asia and elsewhere before the century is done. Until then, resentment towards the West will color the perception of the Non-West towards the West.

Then again, the cultural hegemony of the United States is obvious in the McDonalds and Coca-Colas that are seen everywhere in the world. More importantly, the penetration of France and England in Africa and Asia in the nineteenth and twentieth centuries has resulted in the dominance of the French and English languages along with the framework of democracy, gender equality, and human rights.

Thus, boundaries between cultures have become a semi-permeable membrane through which scientific knowledge and technology, also life-styles and modern enlightenment values and comments and judgments on cultures flow from the West into the Non-West; and rarely in the other direction. This has created an asymmetry which has been the source of considerable tension in the world.

These are powerful factors in the reaction to modernism which is mistakenly identified with Western culture. Within the matrix of Western culture too there were and still are staunch dissenters to the culturally uncomfortable consequences of the onslaught of science and Enlightenment which resulted from worldview boundary crossings. Traditional Christianity suffered as a result of the Enlightenment, but it has also benefited considerably in being relieved of its excessive zeal and intolerance of deviations from main-stream doctrines. Inquisitions and sectarian wars are no longer current religious modes to affirm or safeguard faith, and have become embarrassments of the past. It is likely that similar changes for the better will occur in other religion-guided cultures also.

#### **Enlightenment and Cultural Insensitivity in Boundary Crossing**

It is not yet recognized by vast numbers of people in many parts of the world, both secular and religious, that many of the values that have ensued from the Enlightenment are as universal as the results of current physics, biology and cosmology: their universality transcends race and religion and national boundaries. E. O. Wilson rightly observed that "by any reasonable measure of achievement, the faith of the Enlightenment thinkers in science was justified."

Many nations unabashedly embrace the United Nations Charter and the Geneva Convention when these ensure their own safety and security, but not all these nations are as receptive to religious tolerance, gay rights and accommodation of minorities. In other words, not all the fruits of the Enlightenment have been able to cross all cultural boundaries.

With the dawn of the modern era in the eighteenth century some European scholars began to probe into Non-European histories as well. Their dedication led to the discovery of many facets of ancient cultures that had been forgotten by the world at large: such as the code of Hammurabi, hieroglyphics of ancient Egypt, the Indus Valley civilization and Ashoka's edicts. All this was boundary crossing from culture to culture and from historical era to historical era.

When European scholars cast their investigative net into the sea of world religions they discovered abundant cultural treasure chests in the world, but the findings were only as scripts and relics, exotic practices and inscrutable worldviews, interesting and entertaining, informative and sometimes insightful. But the investigators seldom had the feelings and emotions intrinsic to a culture. As Thomas Babington Macaulay observed, "a history in which every particular

incident may be true may on the whole be false." When it comes to analyzing sacred works, sound scholarship is like the firmness of bones, while appreciation and sensitivity are like flesh and blood. Without the latter the former is merely an ugly skeleton: morbid and monstrous, lifeless and lamentable. With the latter, scholarship becomes robust, living, and admirable. When iconoclastic hordes desecrate the sacred symbols of another religion or when a Western scholar says that the Bhagavad Gita is a dishonest work, the consequences are not pleasant.

Thus, though the goal of such endeavors was largely to unravel and understand cultures other than one's own, the task was more difficult that it would seem. Histories tend to be ethnocentric. It is difficult to approach and react to a different culture without the bias that comes from affiliation to one's own, and it is well-nigh impossible to fully understand, let alone appreciate, a culture in which one hasn't lived and which one hasn't assimilated. As a result, though there can be little disagreement about the basic facts and documents that one uncovers, their interpretations tend to be very different from what the practitioners and the inheritors of the culture have in their hearts and minds. As an African proverb says, "Until lions have their historians, tales of the hunt shall always glorify the hunters."

The works of the pioneering scholars were applauded by fellow Europeans. But as a result of the planetary sweep of English and French, people in Asia, Africa and the Arab world came to read what had been and are being said about their cultures. Now a tide of resentment and rebuke has come bursting into the sanctuaries of Western academia from where the probes had been conducted for well over a century, because some interpretations sounded crude and contemptuous to people of the cultures commented upon.

Scholars in the Western world who offer their perspectives on Non-Western traditions are beginning to realize that anthropological commentaries on living traditions are not unlike those of an entomologist on a bee or a grasshopper. In crossing cultural boundaries one has to be careful about what one writes and publishes. It may be noted in passing that what is written about Western culture in Non-Western languages are accessible to only a few Westerners, and therefore do not provoke strong public reactions in the West.

It is difficult for one who is not an active participant in a culture to be empathetic to all that it entails, especially its experiential dimensions. This is not to say that outsiders cannot gain some knowledge of important aspects of a culture not one's own or that they cannot shed new and insightful light on other cultures. But what cannot be expected even of a scholar with impressive erudition is heart-felt resonance with what is being commented upon.

## **Boundary Crossing through the Aesthetic Dimensions of Culture**

In the light of all this it would be helpful to consider culture as consisting of three distinct, but sometimes overlapping, components: the aesthetic, the ethical, and the scientific. First there is the aesthetic dimension. It refers to all that provides enjoyable experiences. Language is an important aspect of the esthetic experience. There is a magic in every language that lights up culture at the most fundamental level. People, who have strong aversions towards other cultures because of political or religious reasons, will be transformed if they learned the other's language

and begin to read or hear their poetry. There is no more effective way of crossing cultural boundaries that keep us in separate compartments.

The aesthetic dimension of culture includes poetry and literature, art and music, philosophy, feasts and festivals. Beauty has no age, says a Portuguese proverb. Whether it is Cherokee or Catalan, Mongolian or Inuit, there are countless legends and lore, music and dance in the thousand tongues that have emerged. Every one of these is a precious gem in humanity's collective treasure chest. They have come from centuries of spiritual evolution, given life by countless thinkers and creators everywhere. Boundary crossing occurs when one takes the time and makes the effort to acquire even a minimal acquaintance with another language.

Every language is like a musical instrument. The poets in the language are like virtuosos who can create the most magnificent music with them. When we acquire even the rudiments of a language not our own, it is as if we are already stepping to an alien orchard replete with luscious fruits. Every reader looks for and gets something from a poem.

We may detest Nazis, but who can be untouched by a Goethe or a Heine? We may be unhappy about Iran's politics, but Omar Khayyam and Rumi will make us love the people. When one hears the serene chant of the Holy Qur'an in Arabic, we forget suicide bombers and admire the beauty of the language. Indians who hate the British and Algerians who hate the French for the colonial occupation love England and France when they read Shakespeare and Swinburne, Rabelais and Racine. Anyone who has read Kamban or Tiruvalluvar in the original cannot fail to fall in love with Tamil. Likewise in every cultural tradition of humanity. In the words of Octavio Paz, "Every poem is unique. In each work there throbs to a greater or lesser degree, the whole poem. Every reader looks for something in the poem." ["Cada poema es único. En cada obra late, con mayor o menor grado, toda la poesía. Cada lector busca algo en el poema."] Thus, in a peculiar way, poetry brings us all within the same boundary of humanity's visions. That is why boundary crossing through language and poetry is enormously rewarding.

### Religion, Ethics, and Boundary Crossing

Up until the modern era, the ethical framework of cultures was constructed largely from the religion of the people. Primarily traditional religions contributed to the values that guide and inspire the people. The rise of modern science and Enlightenment separated ethics from religion, leading to a switch from the local and the religious, to the secular, the international, and the universal. Traditional ethics related to how one should behave towards fellow human beings; modern ethics include how each group should treat members of a different group. Thus arose notions like human rights and gender equality. The cultural boundary crossing from the premodern to the modern is largely determined by to what extent the ethical framework of a people as reflected in the laws of the nation transcend racial, religious, and sectarian boundaries.

In other words, an important boundary crossing occurs when our moral guideposts leap across the historical divides that arose when different peoples and cultures evolved ethical frameworks based on local social cohesion and security, inspired by scriptural texts. Principles of universality go against the parochial worldviews in which people are placed in different hierarchical classes, women are assigned secondary roles and compelled to dress-codes promulgated by male

moralists, particular races are seen as privileged or chosen, and the promise of redemption and entry into God's realm is reserved only to those who promise allegiance to particular prophets and historical personages as redeemer of all of humanity.

One way or another, boundary crossing on the ethical plane from the local to the universal is essential for the betterment of the human condition.

#### **Trans-religious Perspectives**

Fortunately, even granting that there are passages in the Scripture of every religion that presumes a privileged pinnacle for itself, every major religion has at its core perspectives that will enable its practitioners to make the transition from the stifling air of constraining convictions to the fresh and healthy atmosphere of pan-human values. In every religious tradition, there are awakened thinkers and responsible leaders who lead the people along enlightened paths. Even if not always exact, it is possible to interpret many passages from time-honored scriptures to give them enlightened meanings. Such interpretations may be declared as lies by fundamentalists, but, as Jacinto Benavente said, it is worth it if this will serve a noble purpose. ["Non è una cattiva mensogna quando difendiamo con questa una buena verita."]

The Hindu Vedas pray for the welfare of humankind. The Judaic Mishnah stresses the importance of both the individual and the equality of one and all, and that every one has a Godgiven sacred right to life. Christian values and respect for Man as the Image of God are implicit in modern secular humanist movements We read in the Holy Qur'an: "Be steadfast in your devotion to God, bearing witness to the truth in all equity; and never let hatred of any one lead you into the sin of deviating from justice. Be just: this is the closest to being God-conscious."

# **Understanding Natural Phenomena: Science and Boundary Crossing**

The third dimension of culture pertains to understanding and interpreting natural phenomena. All through history, keen thinkers have been struck by the myriad aspects of the world, from the star-studded sky to rainfall and rainbow. They also reflected on the perennial puzzles like when, why, and how the world came to be, the origin of humans and the destiny of it all. All this gave rise to fascinating ancient science.

With the emergence of modern science, cracks began to develop in a hundred contexts in ageold and time-honored visions of how life or the world came to be. But as Galileo said, we are not obliged to believe that the same God who has given us senses, reason and intelligence wanted us not to use them. ["Io non mi sento obbligato a credere che lo stesso Dio che ci ha dotato di senso, ragione ed intelletto intendesse *che* noi ne facessimo a meno."]

Modern science, with its drastically new methodology in the grasp of perceived reality, brought within the scope of human understanding a thousand aspects and elements of the physical and biological world that had escaped generations of humankind. And while its results called for drastic revisions of ancient worldviews, they also cemented humanity in one global

framework in which peoples of all races and religions, creeds and convictions, work together as members of one global inquiring family who are united in spirit and in methods in their quest to unravel every puzzle and problem in the natural world that teases the alert human mind. Science thus serves as the greatest boundary crossing factor in the modern world.

#### **Religion-Science Boundary Crossing**

The challenge is to cross the boundary from the sanctified framework of tradition with deep roots in cultural consciousness into a paradigm where phenomena are consequences of the laws of nature, where miracles have no place, where there seems to be no purpose or design in the workings of the world, and where the origin had no creator and the end no judgment for reward or punishment. The view that we humans are accidental glitches in an insignificant niche in a callous universe, as affirmed by modern science, imposes a psychological unease, an existential discomfort, and a spiritual void that stand as barriers to this most urgent boundary crossing.

But it would be intellectually dishonest to repudiate the findings of modern science. Indeed, if we did that, if every group in the world chooses to cling on to its own religious-ancestral interpretations, it would also throw us back into the multiple worldviews of the ancient world. Goethe reminded us that those who possess science and art also have religion, and those who don't have these, have only religion. ["Wer Wissenschaft und Kunst besitzt, hat auch Religion; Wer jene beiden nicht besitzt, der habe Religion."] Indeed, they have only mindless religion.

The idea that science and only science has validity, and can solve all our problems is one of the major hurdles in boundary crossing. This precludes all kind of metaphysics, for it sets out a Platonic gate which one cannot cross unless one is science-savvy. Indeed, other disciplines have similar constraining and constrained visions.

On the other hand, the insistence that the scientific mode of comprehending the world is the only matter of interest there is to being human, as also indifference to the spiritual needs of people and disdainful dismissal of all religious sentiments would be detrimental to our efforts to make this a more harmonious world where feelings and emotions play as crucial a role, not to say more powerful, as the framing of every human experience in a logical straight jacket. In other words, one major obstacle to science-religion boundary crossing is scientism which says, in the words of Félix Dantec, that science and only science will resolve all meaningful questions. ["Je crois que la Science et la Science seule résoudra toutes les questions qui ont un sens."] The other major obstacle is religious fundamentalism which insists on interpreting scriptures literally.

Perhaps a practical way of accommodating both the stringent requirements of modern science for assigning truth-values and the call of faith to recognize an omnipotent, omniscient, and omnipresent Almighty at the root of it all would be for scientists to grant that science is concerned only with the world such as it is, and not with what or who might have initiated it all; and for religion to allow that the Creator chose to make this a world that would be interpreted some day by the probing human mind through the methods and metaphors of science.

### **Boundary Crossings in Ideological Contexts**

Ideological conflicts arise between different programs and philosophies for solving the problems of society and of the world, as also for achieving spiritual salvation. How is one to establish social justice, economic prosperity and legal equality, for example? Thus we have conflicts between capitalism and communism, authoritarianism and democracy, universal freedom and theocracy. These are frameworks with well defined boundaries. On the spiritual plane, there are differing routes for everlasting joy: nirvana or svarga, the pearly gates of heaven or jannah, etc, and different messiahs and saviors and prophets and gurus too to lead us to salvation. Boundary crossing here is not just difficult; it can sometimes become dangerous, for it involves the sin of apostasy. In these instances, boundary crossing does not require movement beyond one's own boundaries, but rather in calls for efforts to understand the perspectives of others, and to develop some respect for them.

### **Concluding Thoughts**

We live in a complex world, compartmentalized both naturally and artificially. So boundary crossings become inevitable in a variety of contexts. Sometimes we avoid boundary crossings, or are averse to them because they call for effort, even hard work, and they may make life even more complex. Or again, boundary crossing may result in the abandonment of things we hold dear or sacred. Interfaith movements call in question our deepest beliefs. The opening of borders to allow international boundary crossings has economic and cultural impacts. It poses risks to the security and integrity of nationally defined cultural values and patterns.

I would like to close with a quote from Friedrich Schiller who wrote in the late 18<sup>th</sup> century that

As soon as our expanded experience and precise thought led to the division of the sciences, and the complex machinery of the state made separation of social classes and tasks more rigorous, the close link with nature was broken and a pernicious struggle sowed discord in a harmony that existed among the various forces.

That prescient reflection seems to be even more valid today. Serious people of goodwill reflect on the extraordinarily complex web of confusions and confrontations that have tossed humanity into its present predicament. We need new and hitherto unconsidered perspectives to meet the challenges that have arisen so unexpectedly and indeed abruptly in human history.