Science, Religion and Development: Some Initial Considerations

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The profound changes now shaping human affairs suggest that new models of life are within the grasp of a rapidly evolving global community. Advances in knowledge across an ever-expanding range of disciplines, the emergence of international mechanisms that promote collective decision-making and action, and the increasing ability of the masses of humankind to articulate their aspirations and needs, portend a great surge forward in the social evolution of the planet. To realize the promise offered by such changes, however, will require a searching reexamination of the prevailing patterns of social and economic development.

Conditions of justice and equity that foster both individual and collective well-being remain an elusive goal. At one extreme, deprivation and despair afflict vast numbers of the world’s peoples, while, at the other, a limited segment of the human race is enjoying a conspicuous and unrestrained affluence. Entrenched patterns of dependency and poverty are accompanied by great disillusionment with the modern ethos. As a vision of society, the relentless pursuit of wealth in an impersonal marketplace and the frenetic experimentation with various forms of self-indulgence are being rejected as irrelevant to the awakening hopes and energies of individuals in all parts of the planet. It is no longer possible to maintain the belief that the approach to social and economic progress to which the materialistic conception of life has given rise is capable of leading humanity to the tranquility and prosperity which it seeks.

The difficulties encountered during almost five decades of development work, particularly the inability to elicit the involvement of the very people that such efforts purport to serve, directly speaks to the need for new development concepts and models. Although workers in the development field have gradually become aware of the many interacting factors underlying social and economic advancement, contemporary development discourse continues to be governed by a limited range of assumptions and approaches.

It is clear that a complex but vital set of questions concerning human nature and purpose needs to be incorporated into development thinking. Attention must be brought to a domain of issues that goes to the heart of human identity and motivation. More often than not, social and economic initiatives have neglected the values, traditions and perceptions of the central stakeholders in the development process—the people themselves. The international development agenda has for the most part ignored the fact that the great majority of the world’s peoples do not view themselves simply as material beings responding to material exigencies and circumstances, but rather as moral beings concerned with spiritual awareness and purpose. It has thus become evident that the mainly economic and material criteria now guiding development activity must be broadened to include those spiritual aspirations that animate human nature.

Existing development strategies and programs fall far short of taking into account those essential spiritual and social dimensions of life so fundamental to human welfare. Civilization itself does not arise merely from material progress, but rather is defined by and founded upon the ideals and shared beliefs that weld society together. What uniquely defines the human experience is the transcendent component of life. It is this dimension of existence that enriches, ennobles and provides direction to human beings. It is this dimension of life that unlocks the creative capacities within human consciousness and safeguards human dignity.

While pragmatic approaches to problem solving must obviously play a central role in development initiatives, tapping the spiritual roots of human motivation provides the essential impulse that ensures genuine social advancement. When spiritual principles are fully integrated into community development activities, the ideas, insights, and practical measures that emerge...
are likely to be those that promote self-reliance and preserve human honor, thereby avoiding habits of dependency and progressively eliminating conditions of gross economic disparity. Hence, an approach to development that incorporates moral and spiritual imperatives will more likely lead to enduring changes in both individual and collective behavior.

In essence, the development process is ultimately concerned with both the transformation of individuals and the social structures that the members of society create. The emergence of peaceful and progressive modes of living requires both an internal and external reordering, and such a reordering can only occur when the human heart is transformed. Its purpose must be to promote a process of social change that engenders cooperation, compassion, rectitude of conduct, and justice—a transformation that permeates every aspect of the relationships that govern human activity.

From this perspective, material advancement is properly understood not as an end in itself, but rather as a vehicle for moral, intellectual and social progress. Similarly, any meaningful enhancement of material well-being flows only from the concrete application of spiritual precepts such as equity, trustworthiness, and altruism. Recognition of the inseparable connection between the material and spiritual aspects of life therefore gives rise to a fundamentally different notion of development.

The Historical Background[1]

The origins of the modern field of development can be traced to the set of circumstances associated with the collapse of colonial systems and the emergence of new nation states following World War II. The first development programs and strategies were directly influenced by the model of successful European reconstruction carried out under the Marshall Plan. This model propounded a modernization path which almost exclusively focused on industrialization. The basic thrust of this policy was to seek maximum growth in the economies of developing countries, which, it was believed, would generate sufficient wealth and employment to gradually involve the majority of their populations in productive activity. Capital accumulation, the transfer of technology and related know-how, the introduction of modern methods of administration, and the significant injection of foreign aid were the principal elements of an approach designed to bring the benefits of modernity to the world's masses.

Although well-intentioned, this modernization paradigm proved in many respects disastrous. In its attempt to unlock the potential of the peoples of the developing world the industrialization process resulted in large migrations from rural to urban areas and a concomitant breakdown in social cohesion. Such migration was not unintended as it was deemed a necessary and even desirable way to accelerate economic growth. Implicit in this development approach was the view that a majority of the inhabitants of rural regions led unproductive lives that needed to be redirected. Its overall conception revealed the erroneous and paternalistic perceptions of development planners.

As the inefficacy of the strategies employed to achieve ambitious growth objectives became increasingly evident, the focus of attention turned, during the decade of the sixties, to cultural, demographic, and technological questions. While economic growth continued to be the overarching aim, considerable resources were allocated to the exploration of ways to overcome obstacles in its path. Programs concerned with health and education, and concerted efforts to modernize agricultural methods through the Green Revolution, are often cited as the most notable successes of this period. An underlying assumption of these programs was that rural populations were indeed resourceful and lacked only the proper tools. In short, if the technological base of these peoples could be advanced, economic prosperity would surely follow.

The Green Revolution was only partially successful. Food production increased notably, and millions were almost certainly saved from pending starvation. But the gap between the rich and the poor also increased both in the villages and in the cities that received a constant stream of migrants in search of a better life. As a result, development thinking proceeded to emphasize the needs of the poor and their share and participation in economic growth. The realization that even after two decades of development activity the number of those living in absolute poverty was soon to reach a billion had a startling effect on policy makers and field workers alike. It gave rise to a fresh examination of the question of equity. International agencies began to pursue extensive initiatives that focused specifically on the poorest of the poor.

Growth with equity, and attention to basic human needs, became the principal concerns of the development community.
By the end of the third decade of development, thousands of projects undertaken not only by governments and international agencies but also by a multitude of non-governmental organizations had made possible rather sophisticated analyses of social and economic advancement. Intensive dialogue and study had shed light on the intricacies of a number of themes, including appropriate technology, the role of women in development, planning and implementation of projects as a means of fostering community and institutional capacity, environmental preservation, people-centered development, community organization, and project evaluation. A process of learning that acknowledged the great complexity of development was at last underway.

Yet, there was, for the most part, no fundamental change in the way the poor were perceived. The predominant image, which has persisted since the early seventies, essentially reduces current reality to an endless collection of problems and needs: people suffering from inadequate diets, housing and sanitation; having limited access to education; lacking access to capital and modern technology; or unable to attain levels of reasonable consumption. While such a deepening recognition of the multifarious causes underlying poverty represents a step forward, it is not at all clear how an integrated and organic approach to development that engages the people most affected can emerge. Incremental or piecemeal measures addressing narrowly defined problems have failed, and will no doubt continue to fail, to ameliorate the widespread destitution and social disorder now engulfing significant portions of the planet.

Today, even with an increasing emphasis on participation and local community empowerment, development programs often are managed or initiated from the outside rather than from the grassroots of society. True participatory approaches to social and economic progress that are holistic in character have yet to be implemented to any significant degree. But more important, people-centered development, however creative its current manifestations, is not likely to lead to a systemic betterment of people’s lives without a unifying vision of life and society. Such a vision must necessarily draw on and amplify the deep-seated spiritual understanding of the human condition held by a preponderance of the earth’s population. It is therefore difficult to see how development theory and practice can undergo fundamental change unless the corresponding discourse admits a reexamination of the nature of the human being. Such exploration cannot be effected simply through speculation and arbitrary expressions of uniformed opinions. The serious discussion of this vital matter inevitably calls for a new level of dialogue between science and religion.

Science and Religion

Recognition of the vital link between the practical and spiritual aspects of human life leads inevitably to a reframing of what constitutes well-being and of the possible mechanisms for attaining such well-being. This realization underlines the need for a systematic exploration of the roles that science and religion play in the development process.

A first step in an inquiry of this nature is to understand the essential functions of science and religion in human society. Throughout history, civilization has depended upon science and religion as the two principal systems of knowledge that have guided its development and channeled its intellectual and moral powers. The methods of science have allowed humanity to construct a coherent understanding of the laws and processes governing physical reality, and, to a certain degree, the workings of society itself. The insights of religion have provided understanding relating to the deepest questions of human purpose and initiative. During the moments in history when these two agencies have operated in concert, peoples and cultures have freed themselves from destructive habits and practices and attained to new levels of technical, artistic, and ethical achievement. In effect, action is an offspring of knowledge, and therefore science and religion are instruments or expressions of human will.

Science and religion, however, have often been regarded as inherently conflictual, even mutually exclusive spheres of human endeavor. That the vitalizing agency of religion has frequently succumbed to the forces of dogmatism, superstition, and theological factionalism is a conspicuous fact of history. The Enlightenment, in fact, marked a crucial turning point in releasing human consciousness from the shackles of religious orthodoxy and fanaticism. But in its rejection of religion, the Enlightenment also rejected the moral center that religion provided, creating a deep and still existing dichotomy between the rational and the sacred. The results of this artificial split between reason and faith can be seen in the skepticism, alienation and corrosive materialism that so pervades contemporary life.
For the vast majority of humankind, the proposition that human nature has a spiritual dimension is a self-evident truth that finds expression in all spheres of life. Within the human being there exist fundamental longings that inclines it towards transcendence, towards contemplation of the underlying causes of existence and the mystery of human reality itself. These basic existential yearnings have been met throughout the ages by the world's religions. The spiritual impulses set in motion by these religious systems have been the chief influence in the civilizing of human character. Through the teachings and moral guidance of religion, great segments of humanity have learned to discipline their baser propensities and to develop qualities that conduce to social order and cultural advancement. Such qualities--compassion, forbearance, trustworthiness, generosity, humility, courage, and willingness to sacrifice for the common good--have constituted the invisible yet essential foundations of progressive community life. Recognition and cultivation of humanity's spiritual nature have engendered cohesion and unity of purpose within and across societies and served as the wellspring of the vital expressions of civilization.

In its truest form, devoid of dogmatic accretions, religion has imparted spiritual and moral verities that in no way contradict the discovered truths of science. There is no substantive basis to the contention that an intrinsic incompatibility exists between science and religion. The process of scientific discovery itself involves human faculties such as imagination and intuition, in addition to reason, and cannot be regarded simply as a set of well-defined procedures. The historic dichotomy between reason and faith is a false dichotomy. They are complementary faculties of human nature that both engage in the process of discovering and understanding reality; they are both tools that enable society to apprehend truth.

This perspective is reinforced by recent scientific developments that suggest strong epistemological convergence with various religious world-views. Modern physics and psychology, for example, cast considerable doubt on the notion that matter is the primary basis of reality, or that human consciousness is a simple derivative of neurochemical processes. The reductionism and determinism associated with Newtonian mechanics is now giving way to an understanding of physical phenomena in which the universe is regarded as an ever evolving, interconnected, and unified whole. The fact that physical laws permit complex biological configurations to emerge and evolve to the point of consciousness, suggests evidence of higher level organizational laws and even design. In short, there is nothing unscientific in the assumption that a Creative or Divine force is at work in the world.

These points only bear importance insofar as they encourage a more rigorous and unified interchange between scientific and religious streams of inquiry. Taken together, science and religion provide the fundamental organizing principles by which individuals, communities, and institutions function and evolve. Utilizing the methods of science allows people to become more objective and systematic in their approach to problem solving and in their understanding of social processes, while drawing on the spiritual inclinations of individuals provides the motivational impetus that begets and sustains positive action. Meaningful transformation of the conditions of society does not simply involve the acquisition of technical skills, but more important, the development of qualities and attitudes that foster cooperative and creative patterns of human interaction. Understanding the forces that can effect changes in attitudes and behavior is an area of study that lies at the interface between science and religion.

A discourse that views the spiritual and material domains of existence as interwoven into the process of development entails a clear break from present development methodology. That science and religion have mutually reinforcing roles to play in the development field can no longer be a matter of debate. Sociological and organizational questions relating to social and economic advancement must, of necessity, refer to spiritual perspectives and values. However, the manner in which spiritual perspectives are integrated into development activities must involve the same logical and rigorous methods employed by science. This will ensure that development efforts are anchored to tangible and objective outcomes. Indeed, if religion is to be the partner of science in the development arena, its specific contributions must be carefully scrutinized. It is unfortunately the case that established religion is often burdened by doctrines and
practices that militate against efforts to improve material conditions. Sectarian distortions that encourage passivity, acceptance of poverty, social exclusion or inequality between the sexes must be weighed against more universal spiritual concepts that emphasize the centrality of justice and service to the common weal. Thus, a new approach to development must also seek to identify traditions of paternalism and other patterns of behavior that serve to undermine development initiatives.

Science, Religion, and Capacity Building

How then can spiritual principles be infused into our understanding, practice and assessment of development? The challenge is not a new one. Throughout past decades, development thinkers have repeatedly encountered issues related to values and beliefs. Too often, though, they have backed away from a thorough examination of the subject. If individuals and communities are to become the principal actors in promoting their physical and social well-being, they must be able to draw on spiritual tenets and belief systems to give vision and focus to their endeavors. But this must be done in a way that palpably improves their capacity to define, analyze, and meet their own needs.

The enterprise of building human capacity, of fostering constructive personal, community and institutional change, is increasingly being recognized as the fundamental purpose of development. When viewed as capacity building, development is concerned principally with the generation, application, and diffusion of knowledge. If it is accepted that knowledge is both spiritual and material in nature, the methodologies of science and the insights of religion can, when working together in a synergistic manner, provide the essential tools for erecting harmonious and equitable social systems. Placing the generation and application of knowledge at the center of development planning and activity makes it possible to study the practical implications of religious values, particularly the role that such values have in generating a unified approach toward social change at the grassroots level.

It is generally accepted that the materially poor must participate directly in efforts to improve their own well-being. But the nature of that participation has yet to be fully explored. It becomes more understandable if it is examined in the context of the role of knowledge presented here. Participation must be substantive and creative; it must allow the people themselves access to knowledge and encourage them to apply it. Specifically, it is not sufficient for the world’s inhabitants to be engaged in projects as mere beneficiaries of the products of knowledge, even if they have a voice in certain decisions. They must be engaged in applying knowledge to create well-being, thereby generating new knowledge and contributing in a substantial and meaningful way to human progress. If, in fact, a community controls the means of knowledge, and is guided by spiritual principles, it will be able to develop material resources and technologies that serve and match its real needs.

The ability of any group to participate fully in its own development process depends on a wide range of interrelated capacities at the personal and group level. Among the most important are the capacities to take initiative in a creative and disciplined manner; to think systematically in understanding problems and searching for solutions; to use methods of decision-making that are non-adversarial and inclusive; to deal efficiently and accurately with information rather than respond unwittingly to political and commercial propaganda; to make appropriate and informed technological choices and to develop the skills and commitment necessary to generate and apply technical knowledge; to organize and engage in ecologically sound production processes; to contribute to the effective design and management of community projects; to put into place and to participate in educational processes conducive to personal growth and life-long learning; to promote solidarity and unity of purpose, thought, and action among all members of a community; to replace relationships based on dominance and competition with relationships based on reciprocity, collaboration, and service to others; to interact with other cultures in a way that leads to the advancement of one’s own culture and not to its degradation; to encourage recognition of the essential nobility of human beings; to maintain high standards of physical, emotional and mental health; to imbue social interaction with an acute sense of justice; and to manifest rectitude in private and public administration.

Incomplete as it is, this list is suggestive of the constellation of capacities necessary for building up the social, economic, and moral fabric of collective life. The list highlights the vital role of both scientific and religious resources in promoting development. It alerts us to the range of values and attitudes that enhance key capacities, as well as the concepts, information, skills, and methods to be employed in their systematic development. It also underscores the importance of structured learning in generating and sustaining an integrated set of social and economic activities.

Hence, capacity building as proposed here entails the enabling of the individual to manifest innate powers in a creative and methodical way, the shaping of institutions to exercise authority so that these powers are channeled towards the upliftment of the members of society, and the development of the community so that it acts as an environment conducive to the release of individual potential and the enrichment
of culture. The challenge to all three is to learn to use material resources and intellectual and spiritual endowments to advance civilization.

Where to Start?

How does a discourse on the complementary roles of science and religion in promoting social transformation begin? What are the concrete areas of human activity that can be most meaningfully affected? As a starting point, it is suggested that the discourse focus on the process of capacity building in the following areas:

Education

Because social advancement springs from the creation and dissemination of knowledge, a salient feature of development strategy over the past decades has been education. Initially, a focus on physical infrastructure evolved to include matters related to curriculum, administration, pedagogical training, educational technology, and the relationship between schools and their surrounding communities. Yet, despite notable achievements, especially in providing primary education on a universal basis, educational methodologies are, in the main, falling short of releasing and cultivating human potential. A fragmented approach toward accessing knowledge is resulting in a cumulative educational experience which does not allow students to see the essential relationships between different areas of human inquiry and social reality. This fragmentation is exacerbated by the emphasis placed on the absorption of facts rather than on the understanding of important concepts and processes. Moreover, issues relating to individual purpose and morality are rarely incorporated.

The existing situation calls for a fresh look at the entire corpus of human knowledge and how it can be studied and extended in a holistic fashion. Education should strive to develop an integrated set of capabilities—technical, artistic, social, moral and spiritual—so that individuals can lead lives with meaning and become agents of positive social change. It is in creating curricula and methodologies that foster such interrelated capabilities that will require a partnership between science and religion.

Economic activity and organization

Central to the task of reconceptualizing the organization of human affairs is arriving at a proper understanding of the role of economic activity. The economic disequilibrium and inequity now so widespread in the world directly result from the failure to place economic questions into the broader context of humanity's social and spiritual existence. Economic arrangements should serve people's needs; societies should not be expected to shape themselves to fit specific economic models, particularly those that embrace habits of unbridled acquisition and consumption.

Creating ecologically sustainable patterns of economic activity that extend from the local to the global level will require a fundamental reorientation of both the principles and institutional arrangements that govern production and consumption. Approaches for encouraging the creation and distribution of wealth in rural microregions and policies that prevent the processes of globalization from marginalizing grassroots economic initiatives deserve particular attention from researchers. Ultimately, society must develop new economic models shaped by insights that arise from a sympathetic understanding of...
shared experience, from viewing human beings in relation one to another, and from a recognition of the central role that family and community play in social and spiritual well-being. Resources must be directed away from those activities and programs that are damaging to the individual, communities and the environment, and directed toward those most germane to creating a social order that cultivates the limitless potentialities within human beings. Both science and religion thus have a key role to play in developing economic systems that are strongly altruistic and cooperative in nature.

**Technological development**

Technological trajectories are shaped by a variety of economic, social, and political factors. The current direction of technology development, however, is primarily being driven by market forces that do not reflect the basic needs of the world's peoples. Moreover, the technology policies of governments rarely give explicit attention to social and environmental exigencies, while social and environmental policies rarely take account of technological opportunities. There is a need for greater coherence.

Defining and understanding technological need must be a key feature of any grassroots participatory process. The capacity for technological assessment, innovation and adaptation must be fostered within people themselves. A first important step in this direction is to encourage awareness and respect of the existing knowledge base of a community or culture. This will assist the community to develop confidence in its ability to conceive and implement innovative solutions to difficult problems. When such confidence exists, science and technology can more readily be used as tools for preserving and extending cultural identity. In this regard, the establishment of local and regional centers of learning will play a crucial role not only in technical education and training, but also in systematizing and expanding indigenous knowledge.

If spiritual commitment and moral principle inform the underlying ethos of community life, scientific discovery and technical innovation will be deployed in ways that serve to enrich individual and collective experience. Technological decision-making that is directly guided by local value systems will ensure that superfluous uses of technology are avoided. Such a moral orientation will also focus attention on the most important problems facing communities. A particularly important example is developing sustainable technology paths in rural areas. The integrated use of natural resources such as food, energy, and materials will increasingly become a major concern of village development. Especially relevant in this respect are systems and techniques that complement the agrarian lifestyles of villages.

**Governance**

Good governance is essential to social progress. While governance is often equated with government, it in fact involves much more. Governance occurs on all levels and encompasses the ways that formal government, non-governmental groups, community organizations and the private sector manage resources and affairs. Effective governance is necessary if communities are to maintain their equilibrium, steer themselves through difficulties, and respond creatively to the challenges and opportunities that lie before them. Three factors that largely determine the state of governance are the quality of leadership, the quality of the governed and the quality of the structures and processes in place. All three require the building of capacity.

There is an emerging international consensus on the core characteristics of good governance, especially in relation to formal government. These characteristics include democracy, the rule of law, accountability, transparency and participation by civil
society. But truly enlightened institutions of governance--institutions that are devoid of corruption and that engender public trust--will emerge only when processes of collective decision-making and collective action are guided by spiritual principles. Developing mechanisms of governance that meet this standard will require both moral and practical training. If governing institutions do in fact provide for the meaningful participation of citizens in the conceptualization, implementation and evaluation of public programs and policies, then a community's capacity to effect and manage change will indeed be greatly enhanced. This is true whether the institutions operate at the village or international level.

Justice

Justice is a paramount and underlying prerequisite of all development activity. It is the one instrument that ensures that access and opportunity are fairly distributed. If justice truly is the chief determinant in development planning and implementation, limited resources will not be diverted to the pursuit of projects extraneous to a community's essential social or economic priorities. Only by ensuring that justice becomes the guiding principle of human interaction will the earth's peoples enthusiastically commit themselves to initiatives designed to promote social and economic advancement. The relevant human qualities such as honesty, a willingness to work, and a spirit of cooperation are successfully harnessed to the accomplishment of enormously demanding collective goals when every member of society indeed every component group within society can trust that they are protected by standards and assured of benefits that apply equally to all.[6]

Justice should not be viewed as an unapproachable ideal but as an evolving capacity that individuals, communities, and institutions must continually seek to develop. The realization of justice is dependent upon universal participation and action among all members and agencies of society. Creating a culture of justice, or more specifically human rights, is intimately bound up with a process of moral and spiritual development. Once such a culture begins to evolve, practical issues such as training in the administration and enforcement of justice, equitable distribution of community resources, and the upliftment of persons and groups historically excluded from the benefits and opportunities offered by society can be effectively addressed. Hence, if justice is to become the indispensable compass of daily life, collaboration between the scientific and religious sensibilities of the human race is essential.

Looking Ahead

At this moment in history, when hitherto isolated peoples and cultures are interacting for the first time, and when the earth itself has been contracted in a mere neighborhood, development activity must of necessity be a global enterprise whose purpose is to bring both material and spiritual well-being to all the planet's inhabitants. To acknowledge that humanity is a single people with a common destiny is to understand that development must cease to be something one does for others. The task of erecting a peaceful and just global society must involve all members of the human family.

If the capacities of the world's peoples are to reach the levels needed to address the complex requirements of the present hour, the resources of both reason and faith will have to be tapped. Development initiatives will not lead to tangible and lasting
improvements in physical well-being without drawing on those universal spiritual postulates that give direction and meaning to life. While science can offer the methods and tools for promoting social and economic advancement, it alone cannot set direction; the goal of development cannot come from within the process itself. A vision is needed, and the proper vision will never take shape if the spiritual heritage of the human race continues to be regarded as tangential to development policy and programs.

[1] Many of the points made in this and subsequent sections are elaborated in Promoting a Discourse on Science, Religion and Development by Dr. Farzam Arbab, in a forthcoming publication of the International Development Research Centre, Canada.


[3] It may be argued that, since spiritual and moral issues have historically been bound up with contending theological doctrines which are not susceptible of objective proof, these issues lie outside the framework of the international community's development concerns. To accord them any significant role would be to open the door to precisely those dogmatic influences that have nurtured social conflict and blocked human progress. There is doubtless a measure of truth in such an argument. To conclude, however, that the answer lies in discouraging the investigation of spiritual reality and ignoring the deepest roots of human motivation, is untenable.

[4] Collaboration between religion and science in the development field can take many forms. One obvious example is in the area of moral education. Since moral behavior is a concrete expression of humanity's spiritual nature, the formulation of educational theories and methods that systematically promote moral development is of particular importance. Learning to apply moral and spiritual concepts to achieve material progress could, in fact, be regarded as the essential prerequisite of all social and economic initiatives.
