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Table of Contents

Volume: 27

Iqbal Review: April 1986

Number: 1

1. THE PROBLEMS OF MODERN KNOWLEDGE AND THE UNDERSTANDING OF THE QUR'AN.....	4
2. A CRITICAL STUDY OF ASH'ARISM WITH REFERENCE TO IQBAL AND SCHUON	8
3. THE SUPERSTITION OF LIFE	21
4. ZINDA RUD IN JAVID NAMA - AN APPRAISAL IN THE PERSPECTIVE OF STREAM OF THOUGHT	38
5. Universal Values - The Way To Peace And Fulfilment.....	58
6. ALLAMA IQBAL AND THE YOUNG GENERATION.....	68
7. The Clock Paradox And Its Space Counterpart In Special Relativity Theory	88
8. Iqbal As Poet And Thinker.....	143
9. PSYCHE: A TRADITIONAL PERSPECTIVE	157
10. NAQSHBANDIYYA AND IDEOLOGY OF MUSLIM NATIONALISM	192
11. Iqbal's English Translation of His Own Persian Couplets	212
12. Epistemology of Moral Judgements According to Holy Qur'an	221
13. Trash and Treasure: (A Review Article)	234

THE PROBLEMS OF MODERN KNOWLEDGE AND THE UNDERSTANDING OF THE QUR'AN

Martin Lings (Abu Bakr Siraj-ad-Din)

There is no doubt that modern knowledge has made it necessary for us to interpret certain verses of the Qur'an in a way which is less literal than the interpretation accepted by most of our -ancestors. For example, the science of geology has shown, on the evidence of the fossils in the rocks, that there are long chronological gaps between the first appearances of different classes of living things. It is therefore difficult to take the Qur'anic account of the creation in six days to mean six in an arithmetical sense. But the Holy Book itself invites us to a symbolic interpretation, for *verily a day in the Sight of thy Lord is as a thousand years of what ye count.*¹ For Christians and Jews there is a similar invitation from the Psalms which tell us that *a thousand years in Thy sight are but as yesterday.* No problem whatsoever exists between tradition and science in this respect. Nor is there any. factual difference between what religion teaches and what science has discovered about our remotest ancestors. Both are in agreement that in the earliest times man lived in entirely natural surroundings, without houses, without books, and, if we go back far enough, without clothes. The only divergence here lies in the sense of values: according to the modern outlook, ancient man was "back-ward"; according to tradition-man's primordial simplicity was a great asset. The Holy Books tell us that he was-at first better and wiser than when he began to build houses and to read and write. His perfection was such that he did not, need a religion; and the angels were ordered to prostrate themselves before him.

As to the theory of evolution, sometimes called Darwinism, the belief that the human race is descended from apes which themselves had gradually evolved from some lower species, this does not constitute a difference between religion and science because the theory in question is totally unscientific, being no more than a fantastic hypothesis. None the less, it is taught in many schools as if it were a proven scientific fact; and in the 'West

¹ Qur'an, 22:48.

it has done much — in fact it has probably done more than any other single factor — to undermine religious faith. If it were true, it would indeed be impossible to believe in the religions, which all teach what the Holy Qur'an expresses in the verses: *We created man in the fairest rectitude. Then We cast him down to be the lowest of the low.*² And many other verses could also be quoted, such as those which tell us that when God desires something He says *Be, and it is* and that the creative act is *like the twinkling of an eye*. In a word, the modernists believe that man has come up from below. But until the present age, man believed what all religions teach, namely, that man has come down from above.

The cause of Western disbelief in this universal truth is human pride, largely based on an ever increasing lack of the sense of proportions and the failure to judge things according to their true value. By the end of the 19th century in Europe men were drunk with the conviction that they represented the highest human possibility yet reached. For them the proof of this lay in the new inventions. This certainty of human progress made them totally vulnerable to the theory of evolution, which they eagerly accepted as a scientific proof of their superiority. It was in vain that a minority of scientists maintained that this theory has no scientific basis, and that it runs contrary to many known facts.

Man is made for religion; he cannot live without belief; and if he loses his faith in true religion, he will give his soul to another object of faith, which he will endow with all those rights and privileges which belong to religion alone. The majority of Western scientists have made a religion of evolutionism and of "progressism" which is inseparable from it.

But the non-scientist public is unaware of this. When the scientists affirm that evolution is a proven fact, the non-scientist accepts it without question; they assume that it is the result of altogether objective investigation. In consequence they either lose their religious faith or they try by false logic to adapt their religion to evolution and progress; and I am sorry to have to say that even some Muslims have tried to make out, by turning a blind eye to many Qur'anic verses, that the theory of evolution is to be found in our Holy Book.

As to those scientists who remain objective and who see clearly that the theory of evolution has no scientific basis, they are unable to make

² Qur'an, 95:4, 5.

themselves heard, and some of them have to pretend to be evolutionist in order to obtain work. The evolutionist majority controls all official scientific domains. One of the greatest of the English non-evolutionist scientists, Douglas Dewar, was never able to make himself heard on the radio because whenever he submitted to the BBC a talk against evolution It was referred automatically to the scientific section of the BBC who said it was not interesting. Dewar also asked many times to have a broadcast debate with an evolutionist, but no evolutionist ever dared to undergo this risk.

In consequence the last three or four generations in Europe and America have tended to believe that evolution is a proven fact, and this accounts for the atheism and the agnosticism which is so widely spread over the Western world. In communist countries parents are obliged to send their children to state schools where from the age of five they are indoctrinated with atheism; and evolution, presented to them as a scientific fact, is one of the great "proofs" that religions are all false — deliberately invented by the rich as a means of oppressing the poor. In non-communist countries it is easier to escape from these lies. But none the less, pupils and students see that most of their teachers believe in evolution, and they are bound to be influenced by them, more or less, as the case may be.

In Dar al-Islam the situation is altogether different: the Holy Qur'an affirms the exact opposite of evolutionism and progressism again and again. So do the sayings of Sayyidina Muhammed(ﷺ) And these authorities are accepted as absolute proofs that evolution is not true and therefore not based on scientific fact. But our sons and our daughters are continually being sent to the West, and there they are in great danger of losing their faith because of the predominant belief that science has proved that man is descended from a lower species. If they go to the British Science Museum in London, for example, they will see a gigantic illustration of man's gradual descent from the apes, with a portrait of an ape-like man or a man-like ape for each of the successive links in the chain; and they will be tempted to believe that these portraits are based on fact, not on fantasy, precisely because they are to be found in a museum of which the function - indeed the whole point of its existence — is to place scientific facts before the public. How can we safeguard against this danger, their belief in the Holy Qur'an? In my opinion one of the chief answers to this question lies in the fact that although the true

scientists have not been allowed to broadcast the facts about evolution, they have written books which show beyond doubt that the theory in question is nothing other than a hypothesis. These books, or some of them, should be translated into Arabic, Urdu, Turkish and Persian and other main languages of Muslim peoples. They will serve to show that no problem whatsoever arises from the Qur'anic affirmation that man was created in the best possible state, because the theories which teach the opposite of this are not scientific.

One of the most important of these books is *The Transformist Illusion*³ by the already mentioned Douglas Dewar. Another is *Flaws in the Theory of Evolution*⁴ by Evan Shute. More recent is *Evolution: a Theory in Crisis*⁵ by Michael Denton. These books set out to be purely scientific. Although the authors are believers that God created the universe, they deliberately avoid letting their religion, intrude upon their refutations of evolutionism so that they cannot be accused of religious prejudice. Their arguments are factual and objective. In an altogether different class is *From the Divine to the Human*⁶ by Frithjof Schuon. Here the standpoint is religious but not in the ordinary sense, for the book is addressed to the higher reaches of the intelligence. The reader is intellectually convinced of the absurdity of evolutionism and of the necessity of creation in the light of the metaphysical truth that for all relativity the Absolute-Infinite is both Origin and End. For the Western world which has been subjected for several generations to the lie expressed in the words "from the subhuman to the human", Schuon's *From the Divine to the Human* is a much needed medicine.

³ Dehoff Publications, Tennessee, 1957.

⁴ Tenside Press, Canada, 1966.

⁵ Burnett Books, 1985.

⁶ World Wisdom Books, Bloomington (Indiana) 1982.

A CRITICAL STUDY OF ASH'ARISM WITH REFERENCE TO IQBAL AND SCHUON

Shahzad Kaiser

The Muslim contact with the Greek mind started the process of rationalism in the world of Islam. A few of the primordial lessons which the Greeks had learned from the ancient world remained opaque to the consciousness of the medieval and the modern Muslim mind. There were, no doubt, certain notable exceptions to this dominant tendency in different epochs, the impact of which is being visible on the horizon of the Muslim world. The Muslim thinkers, however, have not fully succeeded in extricating themselves from the huge net-work of speculative reason. The uprooting of the inductive method from its intellectual foundations, in response to the Western mode of thought, has further complicated the situation. The modern Muslim finds himself in a strange dilemma. He is caught between the 'shadow' of abstraction and the 'reality' of the concrete. He oscillates on the spectrum of 'idea' and 'action'. In order to remember the forgotten lesson, it is necessary to retrace our steps to that point where they faltered in the very first instance.

The Mu'tazilites were the early Rationalists who called them-selves the "People of Unity and Justice". Wasil Ibn 'Ata seceded from the teachings of his master Hasan of Basra and started a rational process which has left its footprints on the shores of time. The Mu'tazilites dealt with numerous issues including God and His Attributes, Reason and Revelation, Free Will, Eternity of the Qur'an, Beatific vision. By dint of the speculative method they trespassed into the province of religion. The strength of Al-Ash'ari consists in perceiving that some violation had been committed but he could not understand the bounds of transgression. The latter constitutes the inherent limitation of the Ash'arite vision and methodology.

Iqbal has made certain keen observations in this regard. He says: "Patronised by the early Caliphs of the House of 'Abbas, Rationalism continued to flourish in the intellectual centres of the Islamic world; until in the first half of the 9th century, it met the powerful orthodox reaction which found a very energetic leader in Al-Ash'ari (b. 873 A.D.) who studied under

Rationalist teachers only to demolish, by their own methods, the edifice they had so laboriously built")⁷ As to the cause of reaction, he says: "Rationalism was an attempt to measure reality by reason alone; it implied the identity of the spheres of religion and philosophy, and strove to express faith in the form of concepts or terms of pure thought. It ignored the facts of human nature, and tended to disintegrate the solidarity of the Islamic Church. Hence the reaction".⁸ He expresses the same idea in these words. "The Mu'tazilah, conceiving religion merely as a body of doctrine and ignoring it as a vital fact, took no notice of non-conceptual modes of approaching Reality and reduced religion to a mere system of logical concepts ending in a purely negative attitude".⁹

What was the nature of the Ash'arite reaction? Iqbal says: "Al-Ash'ari's interest was purely theological; but it was impossible to harmonise reason and revelation without making reference to the ultimate nature of reality. Baqilani, therefore, made use of some purely metaphysical propositions . . . in his theological investigation, and thus gave the school a metaphysical foundation".¹⁰ But such a foundation was a pretension to true metaphysics for it lacked intellectual edifice. He says: "The orthodox reaction led by the Ash'arite then was, in reality, nothing more than the transfer of dialectic method to the defence of the authority of Divine Revelation".¹¹ He further says: ". . . yet, on the whole, the object of the Ash'arite movement was simply to defend orthodox opinion with the weapons of Greek Dialectic."¹²

The results of the Ash'arite reaction are visualised by Iqbal in these words: "It is, therefore, clear that while the dialectic of Rationalism destroyed the personality of God, and reduced divinity to a bare indefinable universality, the antirationalist movement, though it preserved the dogma of personality, destroyed the external reality of nature."¹³ He concludes the

⁷ *The Development of Metaphysics in Persia*, pp. 52-53.

⁸ *Ibid*, p. 54.

⁹ *The Reconstruction of Religious Thought in Islam*, pp. 4-5.

¹⁰ *The Development of Metaphysics in Persia*, p. 55.

¹¹ *ibid.*, p.54.

¹² *The Reconstruction of Religious Thought in Islam*, p. 4.

¹³ *The Development of Metaphysics in Persia*, p. 61.

argument, thus: "The Ash'arite reaction against Rationalism resulted not only in the development of a system of metaphysics most modern in some of its aspects, but also in completely breaking as under the worn out fetters of intellectual thralldom".¹⁴ For us, this state of affairs constitutes no strength of Ash'arism. Rather, it compounds its inherent powerlessness. The development of a system of metaphysics most modern in some of its aspects is no moment of rejoice. Strictly speaking, there cannot be a system of metaphysics. Also, the term development is alien to true metaphysics. The affinity which Iqbal finds between Ash'arite metaphysics and modern thought is precisely due to the reason that both Ash'arism and the modern world are devoid of intellectual foundations.

It seems that Iqbal does not take into consideration the subtle distinction between reason and intellect. He tends to treat them as synonymous terms. For instance, he says: "This intellectual revolt against Greek philosophy manifests itself in all departments of thought It is clearly visible in the metaphysical thought of *the* Ash'arite. . . ."¹⁵ For us, Ash'arism *can never be construed as an* intellectual revolt against Greek heritage. The reason being twofold. First, Ash'arism remained captivated in the Greek Dialectic. Second, it was a movement isolated from the intellectual ground. It is pertinent to point out that Iqbal does not consider a constellation of original thinkers who made an authentic rebellion against Greek speculation. This omission clouds his thinking on the subject. The point would become more clear when we deal with Schuon's critique of Ash'arism.

Iqbal has critically examined the Ash'arite theory of Atomism. For the Ash'arites, the world is composed of 'Jawahir' which are not further divisible. Since the creativity of God is limitless therefore the atoms cannot be finite. They are being created each moment. "The essence of the atom is

¹⁴ *ibid.*, p. 95.

¹⁵ *The Reconstruction of Religious Thought in Islam*, p. 128.

independent of its existence. The crux of the matter is that 'nothing has a stable nature'. Iqbal seems to be fascinated by this idea. He says: "I regard the Ash'arite thought on this point as a genuine effort to develop on the basis of an Ultimate Will or Energy a theory of creation which, with all its shortcomings, is far more true to the spirit of the Qur'an than the Aristotelian idea of a fixed universe. The duty of the future theologians of Islam is to reconstruct this purely speculative theory, and to bring it into closer contact with modern science which appears to be moving in the same direction".¹⁶ Iqbal *tries to understand Ash'arite Atomism in reference to Greek Atomism which precedes it and the modern one which follows it and this constitutes the main difficulty. He sees things placed either in the static orbit or in the dynamic one. The immutable, in the metaphysical sense, does not seem to exist for him. The future theologians of Islam have to note instead, that modern science is based on the absence of metaphysical principles.*

Iqbal poses a very critical question in this context. He says: "It may, however, be asked whether atomicity has a real seat in the creative energy of God, or presents itself to us as such only because of our finite mode of apprehension. From a purely scientific point of view I cannot say what the final answer to this question will be."¹⁷ For us, atomicity is not integral to the creative energy of God. It arises due to our rational habit of looking at things. Further, science can never provide a final answer to any ultimate question. The Ultimate is beyond the scope of science. It is metaphysics which deals with the Ultimate and is qualified to reach the terminal. Modern Atomism shall always remain oblivious regarding the reality of creation. From the metaphysical point of view, creation is no-thing but a manifestation of God.

¹⁶ *ibid.*, p. 70.

¹⁷ *ibid.*, p. 72.

Iqbal scrutinises Ash'arite theory of space and time. For the Asharites, space is the product of the aggregation of the difficulty so Nazzam coined the notion of 'jump' to overcome

space and according to Iqbal it has its parallel in modern atomism. They considered time as a succession of individual 'nows'. Like the concept of space, they faced the problem of a void of time. Iqbal considers the notion of time as the 'weakest part of the Ash'arite theory of creation' for like the Greeks it takes an objective view of time. Modern physics falls in the same trap by assuming that matter is discontinuous. He observes that both of them fail for they lack the subjective aspect of time revealed in the process of psycho-logical analysis. This is the reason that no organic relation is found between material atoms and time atoms in the theory of the Asharites.

Here, again, Iqbal accepts the categories of 'subjective' And 'objective' and thus his penetrating analysis remains one-dimension^{al}. The method of psychological analysis, which he advocates for understanding the reality of time, is far from certitude. It fails to reveal the essence of time. From the metaphysical point of view, time is neither subjective nor objective. To consider it as such falsifies the divine-human situation.

Schuon's analysis of Ash'arism adds another instructive chapter. on the subject. Since the Ash'arite reaction was primarily theological, therefore, it faced the contradictions of a theological approach. Schuon says: "Theology is a mental activity which, being founded on the inevitably antinomic and elliptical — but by no means contradictory or insoluble — Data of the sacred Scriptures interprets these data by means of the reason and in terms of a piety that is often more fervent than enlightened. All too often this theories

psychological:doubtless opportune and effective in a given or moral context, but which are nevertheless restrictive or even fallacious from the point of view of pure and simple truth, and in any case unacceptable on the

plane of metaphysics."¹⁸ He makes a very pertinent observation in this regard: "Ash'arite theology in particular offers more than one example of a reasoning inspired rather by an almost totalitarian zeal than by intellectual intuition."¹⁹ He spells out the reason for this in these emphatic words: "The great problem, for Ash'ari, was to substitute for Mu'tazilite rationalism something which, without being rationalism, would replace or canalize the need that gives it birth."²⁰

Ash'arite theology thrives on the dominant tendency'towards anthropomorphism at the expense of symbolism. But anthropomorphism is not integral to religion. Guenon says: ". . . religion, how-ever, has always tried to react against the anthropomorphic tendency and to combat it in principle, even when a more or less garbled conception of religion in the popular mind sometimes helped to develop it in practice."²¹ Schuon scrutinizes Ash'arism on this account. He says: "The great weakness of the protagonists of kalam is to apply anthropomorphism to what in God most completely eludes being made anthropomorphic, namely, Beyond-Being or the Supraontological Essence, and to confuse Beyond-Being with its ontological self determination, namely, Being which creates, reveals and saves."²²

The Ash'arite obsession with Omnipotence lands them in the orbit of theological voluntarism, where everything seems arbitrary. Schuon says: "When Ash'ari depicts the unlimitedness of Omni-potence, he strangely loses sight of what a quality is in itself, as well as what the Divine Nature is; he seems only to discern extrinsic qualities or situations. . . Ultimately, the error here is the subordination of Being to Power, of God — Atma to God-Maya,

¹⁸ *Islam and the Perennial Philosophy*, Lahore, 1985, p. 118.

¹⁹ *ibid.*, p. 119.

²⁰ *ibid.*, p. 128.

²¹ *An introduction to the Study of the Hindu Doctrines*, Luzac, London, p. 135.

²² *Islam and the Perennial Philosophy*, p. 141.

or of Essence (*Dhat*) to Qualities (*Sifat*). ..²³ He further says: "There is here a strange forgetfulness of intrinsic values — God is presented, not in accordance with his Qur'anic image, which stresses above all his infinite Goodness (*Rahmah*, whence the names *Rahman* and *Rahim*), but as a sort of "moral vacuum" whose only characteristic is an unintelligible and incalculable wilfulness. If this were the truth, no name signifying a quality would be applicable to God; human intelligence would be pointless, since there would be nothing to understand; it would not exist, any more than would the virtues, which by definition reflect something of God."²⁴

The Ash'arites became highly subjective in their approach to the Omnipotence of God. Schuon says: "Here the awareness of our ontological nothingness and of our personal limitations is trans-posed into the language of sentimental individualism, a contradictory attitude which yields nothing to the most excessive obedientialism, and which reduces mysticism to an infantile level and impoverishes it just as Ash'arism ruins theology. Let us recall here that Ash'arism has a tendency to reduce the Divine nature to Omnipotence alone, while losing sight of the fact that while God certainly can do all he wishes, he nevertheless does not wish to do all that he can."²⁵ He sums up the entire argument in these words: ". . . in short, when everything is made to depend upon a divine arbitrariness which is unintelligible by definition and to which our will, and even our intelligence, have merely to yield, as if in such conditions it were still worthwhile being man".²⁶ The observation of Ibn 'Arabi is very illuminating in this regard. He says: "Certain thinkers, intellectually feeble, starting from the dogma that God does all that He wishes, have declared it admissible that God should act contrarily to principles and contrarily to that which is the Reality (*a/-amr*) in itself (that is in its principal state — as if the manifestation of God did not

²³ *ibid.*, pp. 119-20.

²⁴ *ibid.*, p. 119.

²⁵ *Logic and Transcendence*, London, 1981, p. 124.

²⁶ *Sufism: Veil and Quintessence*, Lahore, 1985, p. 100.

proceed from the possibilities eternally present in the Divine Being and in the Universal Intellect)".²⁷

AI-Ash'ari's great zeal to prove the nothingness of man in front of the Majesty of God lands him in a strange dilemma. Schuon says: "God does not owe us any explanations, thinks Ash'ari, dazzled as he is by his awareness of our nothingness; but he forgets that God 'wishes to owe' explanations, and that if God creates an apple tree, it is to produce apples and not figs. God 'wishes to owe' human intelligence the clarifications for which it was made... And if God thus keeps His word, ontologically and humanly, it is certainly not from lack of freedom, but because He is Truth and Goodness and because ontologically His Freedom wills the good"²⁸ From our point of view, if man is reduced to nothingness, God as such remains in oblivion. It is pertinent to point out that the existentialists launched a crusade for the individual. But it was more or less a reaction against the abstract mode of thought. Since the revolt lacked intellectual foundations, therefore, the reality of the individual could not be sustained. Without universal, individual has no ground. Schuon rightly observes: "Existentialism has in fact, whether it be Protestant or otherwise, promoted nothing except individualism; never the understanding of metaphysical doctrines, never sanctity".²⁹ To sum up, true metaphysics neither reduces man to nothingness nor installs it as an idol: it appropriates the existential reality of man in a higher form. Sanctity too blooms forth with the induction of the religious element.

Taking a clue from divine arbitrariness, the Ash'arites repudiated the Law of Causation. It was a heavy price the Ash'arite meta-physics had to pay for establishing the possibility of miracles, Schuon says: "If we look for a prime mover in Ash'arism, it is the wish to relate everything, absolutely everything, to the Divine Cause alone. This means denying all cosmic or

²⁷ *Fusus al Hikam*, p. 31.

²⁸ Dilemmas of Moslem Scholasticism, *Christianity/ Islam: Essays on Esoteric Ecumenicism*, World Wisdom Books, Bloomington, Indiana, 1985, pp. 208-209.

²⁹ Letter on Existentialism, *Studies in Comparative Religion*, Spring 1975.

"horizontal" relationships in favour of "vertical" or ontological relationships alone, as if the first were incompatible with the second and as if the "horizontal" relationships were not, on the contrary, the necessary images of the "vertical" relationships and invested with the same right to existence as the things to which they relate".³⁰ He expresses the notion of Maya in relation to causality in these words. "...the idea of Maya permits the combination of the two causalities — physical causality, which is 'horizontal', and metaphysical causality, which is vertical."³¹

The Ash'arite concept of creation is far removed from the intellectual perspective. Schuon says: "Universal Manifestation — creation — is nothing other than the outflowing of a Divine Quality, and if necessity is by no means imperfect but on the contrary signifies a perfection, this is precisely because Manifestation, inasmuch as it is a Divine Quality, goes beyond the alternative "Creator-creature". From this point of view, the world is "none other" than an aspect of Atma.... The duality 'Creator' and 'creature' is situated in Maya; Atma alone transcends it."³² Lindbom says: "God, as Creator, separates and objectifies His work by throwing — symbolically speaking — a veil over the creation." This is what the Vendanta calls "the veil of Maya."³³

Schuon, however, finds some truth in Ash'arite atomism. He says: "Indisputably, there is a basis of truth in Ash'arite atomism, and moreover necessarily so, since what is in question is a theology that grosso modo is orthodox. . . . The metaphysical reason for which created things — and first of all the universal substance it-self — necessarily compromise an element of limitation and separativity, is the gap between the Principle and Manifestation, God and the world, the Uncreated anti the Created; as the Principle alone is absolute Reality. It alone is situated beyond all trace of

³⁰ *Islam and the Perennial Philosophy*, p. 138.

³¹ *ibid.*, p. 137.

³² *ibid.*, p. 132.

³³ *The Tares and the Good Grain*, Mercer University Press, Macon, Ga. 31207, USA, 1983, p. 78.

nothingness. . . . the cosmic substance with its productions, and likewise the cosmic energy with its effects, must have a discontinuous character, and this discontinuity precisely marks the presence of the element of nothingness which distinguishes the Created from the Uncreated".³⁴

He explains the process in these words: "It is with Being that the reign of Maya begins, which by definition implies the presence of a trace of nothingness, hence of illusion; consequently it is only the Essence which is absolutely the Principle, and therein lies the basis of the profound divergence between gnosis and theology."³⁵

In his essay, 'Dilemmas of Moslem Scholasticism,' he gives a sympathetic consideration to the Ash'arite view of Causation. He says: ". . . .Ash'arite atomism is a reminder of the Divine Presence, or an introduction of the transcendent — of the marvellous, one might say — into everyday life. . . . From the point of view of meta-physics, this is an unnecessary luxury, since the intellect has resources other than pious absurdity; but from the theological point of view it doubtless marks a victory."³⁶

The problem of good and evil was a point of contest between the Mu'tazilites and the Ash'arites: The Mu'tazilites considered good and evil as ingrained in the nature of things. Reason was competent in this respective field. For the Ash'arites, good and evil, on the contrary, were based on Divine decree. From the metaphysical point of view, both these schools of thought fail to understand the reality of this issue. Schuon says: ". . . .metaphysically there is no evil; the notion of evil presupposes in fact a fragmentary vision of things, characteristic of creatures, who are themselves fragments; man is a "fragmentary totality".³⁷ He further says: "An evil is what is opposed to the Divine Nature, and not what God — because He is

³⁴ Atomism and Creation, *Christianity/Is/am: Essays on Esoteric Ecumenicism*, pp. 255-256.

³⁵ *ibid.*, p. 256.

³⁶ *ibid.*, pp. 220-221.

³⁷ *Sufism: Veil and Quintessence*, pp. 19-20.

"Omnipotent" — has decreed to be evil; it is the very content of the Divine declaration that confirms the evident fact that lying is an evil; it is not the fact of the declaration that makes lying evil".³⁸ Since the Mu'tazilites lacked the intellectual method, therefore, their understanding of the subject remained superficial. By virtue of the rational method they were condemned to remain on the periphery. The Ash'arites also lacked an ultimate understanding of the issue. Schuon says: ". . . evil created" or "wished for" by God can only be a provisional element in a greater good, and that this evil is consequently integrated and dissolved in the final and decisive good; it is this — and not the notion of a gratuitous "Omnipotence" which explains that nothing can be an evil on the part of the Sovereign Good".³⁹ Marcos Pallis expresses the same idea in these emphatic words: "All relativity can, and indeed must, ultimately be transcended, not by arbitrary denial but by integration".⁴⁰ It is only by dint of Maya that one can have an authentic understanding of the issue. Schuon says: ". . . the notion of Maya does not contradict relative reality, but simply annuls it at the level of Absolute Reality. .."⁴¹

The issue of good and evil has always remained a stumbling block for the theologian. It is only on the plane of metaphysics that an understanding of this problem becomes an actuality. Schuon says: ". . . but the metaphysical cause of sin is different from that of the Divine Command. On the one hand there is for every man a Divine Will which commands the good; on the other hand there is, for the world, a Divine Will in view of a certain cosmologically inevitable or necessary quantity of evil; and there is for every man the freedom to appropriate this or that Universal Will by choosing either good or

³⁸ *Islam and the Perennial Philosophy*, pp. 120-21.

³⁹ *ibid.*, p. 122.

⁴⁰ *A Buddhist Spectrum*, London, 1980, p. 44.

⁴¹ *Islam and the Perennial Philosophy*, p. 137.

evil....."⁴² He sums up the view in these emphatic Words:".....the choice of the good is the choice of Freedom."⁴³

The controversy regarding the Divine Essence and the nature of Attributes engaged the Mu'tazilites and the Ash'arites for a considerable period of time. It was very unfortunate that the Mu'tazilites posed a wrong question which made the Ash'arites strike against a blind wall in seeking the right answer: The Unity of God could properly be understood by metaphysics alone. Speculative reason was lost in the tracks of abstraction. The method of "kalam" proved to be more of an apology than defence. The intellectual tradition of Islam as symbolised by Ali presented a true perspective. Ali says: "The correct form of belief in His Unity is to realise that He is so absolutely Pure and above nature, that nothing can be added to or subtracted from His Being there is no difference between His Person and His Attributes, and His Attributes should not be differentiated or distinguished from His Person. Whoever accepts His Attributes to be other than His Person then he actually forsakes

the idea of Unity of God and believes in duality And whoever holds such a belief he accepts limitations in His Being and confines Him to a place or to particular powers and attributes and brings Him in level to His creatures".⁴⁴ The observations of Muthari are very emphatic in this regard. He says: "The Nahj al Balaghah, while it ascribes all the Attributes of perfection to God, the Exalted, negates any separation of these Attributes from His Essence and does not consider them as an appendage of Divine Essence. On the other hand, the Ash'arites, as we know, consider the Divine Attributes to be additional to Essence and the Mu'tazilites negate all Attributes... the Attributes negated by the Nahj al Balaghah with respect to Divine Essence are qualities of imperfection and limitation; for the Divine Essence, being infinite and limitless, necessitates identity of the Attributes

⁴² Dilemma of Moslem Scholasticism, *Christianity/ Islam: Essays on Esoteric Ecumenicism*, p. 239.

⁴³ *ibid.*

⁴⁴ *Nahjul Balagha*, pp. 101-2.

with the Essence, not negation of the Attributes as professed by the Mu'tazilites. Had the Mu'tazilites reached such a notion they would never have negated the Divine Attributes considering them subservient to the Essence".⁴⁵

Tabatabai' expresses the metaphysics of the idea in these words: "But because the Divine Essence is limitless and infinite these perfections which are shown to be His Qualities are in reality the same as His Essence and one with each other. The difference observed between the Essence and the Qualities and at the same time between the Qualities themselves is only on the plane of concepts. Essentially there is but one Reality involved which is one and indivisible".⁴⁶

The main problem with the Mu'tazilites was their acceptance of conceptual way of looking at things. They tended to consider the process of conceptualization as ultimate. They failed to transcend to the stage of intellect. Their metaphysics remained oblivious of the intellectual foundations of Islam. The Ash'arites, on the other hand, committed a graver mistake. They chose to fight on the battlefield of reason unarmed with intellect. With the weapon of 'kalam' they did subjugate the Rationalists but they failed to destroy the edifice of rationalism.

⁴⁵ Glimpses of the Nahj al-Balaghah, *Al-Tawhid*, July-Sept. 1985, pp. 158-59.

⁴⁶ *Shi'a*, p. 129.

THE SUPERSTITION OF LIFE⁴⁷

Rene Guenon

Among the many things that Westerners often blame the Eastern civilizations for are their steadiness and stability; these characteristics amount in their eyes to a denial of progress, which indeed they are, as we readily admit; but to see a fault in this, one must believe in progress. For us, these characteristics show that these civilizations partake of the immutability of the principles which they are based on, and that is one of the essential aspects of the idea of tradition; it is because the modern civilization is lacking in principle that it is eminently unstable. Besides, one should not imagine that the stability we speak of goes to the length of excluding all change; what it does is to reduce the change to being never more than an adaptation to circumstances, by which the principles are not in the least affected, and which may on the contrary be strictly deduced from them, if they are resorted to, not for themselves, but in view of a definite application; and that is the point of all the "traditional sciences," apart from metaphysic which, as knowledge of the principles, is self-sufficing, for these sciences cover the range of all that may happen to proceed from the principles, including the social institutions. It would also be wrong to confuse immutability with immobility; such misunderstandings are common among Westerners because they are generally incapable of separating conception from imagination, and because their minds are inextricably bound up with representations dictated by the senses; this is very obvious in such philosophers as Kant, who cannot however be ranked among the "sensualists." The immutable is not what is contrary to change, but what is above it; just as the "superational" is not the

⁴⁷ * This is the third chapter of Guenon's long out of print work *East and West*. Very few libraries have a copy of this remarkable critique of the Western civilization and it is almost impossible to come across any copy even in the bookshops that deal in old books. In view of its extreme importance we have reproduced the first two chapters in *Iqbal Review*, Vol. 26, Nos. 2&3. "The Superstition of Life" is the third chapter of the aforementioned book. —
(Editor)

"irrational." There is every reason for distrusting the tendency to arrange things in artificial oppositions and antitheses, by an interpretation which is both systematic and falsely simple, arising chiefly from the inability to go further and resolve the apparent contrast in the harmonious unity of a true synthesis. It is none the less true that there is very real opposition, from the point of view that we have in mind here as well as from many others, between East and West, at least as things are at present: there is divergence, but it should not be forgotten that this divergence is one-sided and not symmetrical, being like that of a branch which grows away from the trunk; it is the civilization of the West alone which, by going in the direction that it has followed throughout the last centuries, has become so remote from the civilizations of the East that between it and them there seems to be, as it were, no longer any common element, any term of comparison, or any meeting-ground for agreement and reconciliation.

The Westerner, or rather the modern Westerner (it is always the latter that we mean), shows himself to be essentially changeable and inconstant, as if vowed to ceaseless movement and agitation, and, what is more, to have no ambition to emerge from it; in a word, his plight is that of a being who is unable to find his balance, but who, in his inability to do so, will not admit that the thing is possible in itself or even desirable, going so far as to make his own impotence some-thing to boast of. These changes which he is subject to and which he takes delight in without requiring that they should lead him to any end, because he has come to like them for their own sake, constitute in fact what he calls "progress," as if it were enough simply to walk, quite regardless of direction, to be sure of advancing. As for the goal of his advance, he does not even dream of asking himself what it is; and the scattering of his forces amid the multiplicity which is the inevitable consequence of these changes without principle and without aim, and indeed the only consequence whose reality cannot be contested, he calls "being enriched"; that is yet another word which, in the gross materialism of the image that it calls up, is altogether typical and representative of the modern

mentality. The need for outward activity carried to such a pitch, together with the love of effort for effort's sake, independent of the results that can be got by it, is not at all natural to man, at least not to the normal man,' according to the idea which has always and everywhere been accepted of him; but it has become in a sense natural to the Westerner, perhaps as a result of habit which Aristotle says is like a second nature, but above all through the atrophy of the being's higher faculties, which goes necessarily with the intensive development of the lower elements. A man without means of extricating himself from agitation has nothing left but to be satisfied with it, just as a man whose intelligence stops short at rational activity finds such activity admirable and sublime; to be fully at ease in a limited sphere, whatever it may be, .one must be blind to the possibility of there being anything beyond. The aspirations of the Westerner, alone of all mankind (we are not considering the savages, about whom it is, moreover, very difficult to know what to think), are as a rule strictly confined to the sensible world and to its dependencies, among which we include the whole order of feeling and a good part of the order of reason; no doubt there are praiseworthy exceptions, but we can only consider here the general and common mentality, such as is truly characteristic of the place and the period.

Another strange phenomenon may be noted in the intellectual domain itself, or rather in what is left of it, and this, which is only a particular case of the state of mind that we have just described, is the passion for research taken as an end in itself, quite regardless of seeing it terminate in any solution. While the rest of mankind seeks for the sake of finding and of knowing, the Westerner of to-day seeks for the sake of seeking; the Gospel sentence, "Seek and ye shall find," is a dead letter for him, in the full force of this phrase, since he calls "death" anything and everything that constitutes a definite finality, just as he gives the name "life" to what is no more than fruitless agitation. This unhealthy taste for research, real "mental restlessness" without end and without issue, shows itself at its very plainest in modern philosophy, the greater part of which represents no more than a series of

quite artificial problems, which only exist because they are badly propounded, owing their origin and survival to nothing but carefully kept up verbal confusions; they are problems which, considering how they are formulated, are truly insoluble, but, on the other hand, no one is in the least anxious to solve them, and they were created simply that they might go on indefinitely feeding controversies and discussions which lead nowhere, and which are not meant to lead anywhere. This substituting research for knowledge (and closely bound up with it is the remarkable abuse which consists in "theories of knowledge" to which we have already called attention) is simply giving up the proper object of intelligence, and it is scarcely strange that in these conditions some people have come ultimately to suppress the very idea of truth, for the truth can only be conceived of as the end to be reached, and these people want no end to their research. It follows that there can be nothing intellectual in their efforts, even taking intelligence in its widest, not in its highest and purest sense; and if we have been able to speak of "passion for research," it is in fact because sentiment has intruded into domains where it ought never to have set foot. Of course we are not protesting against the actual existence of sentiment, which is a natural fact, but only against its abnormal and illegitimate extension; one must know how to put each thing in its place and leave it there, but this calls for an understanding of the universal order, which is beyond the reach of the modern world, where disorder is law. To denounce sentimentalism is not to deny sentiment any more than to denounce rationalism amounts to denying reason; sentimentalism and rationalism are both nothing more than the results of exaggerations and intrusions, although the modern West sees them as the two items of an alternative from which she cannot escape.

We have already said that sentiment is extremely near to the material world; it is not for nothing that the sensible and the sentimental are so closely linked by language, and, although they are not to be altogether confused with one another, they are only two modes of one and the same

order of things.⁴⁸ The modern mind faces almost exclusively outwards, towards the world of the senses; sentiment seems inward to it, and it often seeks, in virtue of this, to oppose sentiment to sensation; but that is all very relative; and the truth is, that the psychologist's "introspection" itself grasps nothing but phenomena, or in other words, outward and superficial modifications of the being; there is nothing truly inward and deep except the higher part of the intelligence. This will seem surprising to those who, like the intuitionists of to-day, only know intelligence in its lower part, represented by the sensible faculties and by reason as far as it turns its attention to the objects of sense, and believe it to be more outward than sentiment; but, in relation to the transcendent intellectuality of the Orientals, rationalism and intuitionism go closely together upon one same plane, and stop equally short at the being's outside, despite the illusions by which either of these conceptions believes that it grasps something of the being's intimate nature. In neither of them is there ever any question, when all is said and done, of going beyond sensible things; they disagree simply on the methods to be put into practice for reaching these things, on how they are to "be considered, and on which of their diverse aspects should be put most in evidence: we might say that the ones prefer to insist on the "matter" side, the others on the "life" side. These are, in fact, the limitations which Western thought cannot throw off: the Greeks 'were unable to free themselves from form; modern Westerners seem above all powerless to extricate themselves from matter, and, when they try to do so, they cannot in any case get away from the domain of life. All these, life just as much as matter and still more than form, are merely conditions of existence particular to the sensible world, so that they are all on one same plane, as we have just been saying. The modern West, but for exceptional cases, takes the sensible world as the sole object of knowledge; whether she prefers to attach herself to one or to the other of this world's conditions, or whether she studies it from this or that point of view, scouring it in no matter what direction, the domain that her

⁴⁸ This corresponds to what we once said about the two conflicting varieties of "monism," the one spiritualistic and the other materialistic.

mind works in continues none the less to be always the same; if this domain appears to become at all enlarged, it never does so to any real extent, even supposing that the appearance is not altogether illusory. There are moreover, bordering on the sensible world, various prolongations which also belong to the same degree of universal existence. According to whether a man has in mind this or that condition, among those which define this world, he may at times reach one or another of these prolongations, but he will remain none the less shut in a special and determined domain. When Bergson says that the natural object of intelligence is matter, he is wrong in giving the name intelligence to what he means, and he does so through his ignorance of what is truly intellectual; but he is substantially right if, by this faulty designation, he means no more than the lowest part of the intelligence, or, to be more precise, the use that is commonly made of it in the West of to-day. As for him, it is indeed to life that he attaches himself essentially: the part played by "vital dash" in his theories is well known, as is also the meaning he gives to what he calls "pure duration"; but life, whatever "value" be attributed to it, is none the less inextricably bound up with matter, and it is always the same world that is being considered here, whether it is looked at with the eyes of an "organicist" or "vitalist" or, on the other hand, with those of a "mechanist." Only, when, of the elements which make up this world, the vital element is held to be more important than the material one, it is natural that sentiment should take precedence over so-called intelligence; the intuitionists with their "mental contortions," the pragmatists with their "inner experience," simply address themselves to the dark powers of instinct and sentiment, which they take for the being's very depth, and, when they follow their thought Or rather their tendency to its conclusion, they end, like Williams James, in proclaiming the supremacy of the "sub-conscious," by the most incredible subversion of the natural order that the history of ideas has ever had to chronicle.

Life, considered in itself, is always full of change and ceaseless modification; it is, then, understandable that it should hold such fascinating

sway over the outlook of the modern civilization, whose changefulness is also its most striking characteristic, obvious at first sight, even if one stops short at an altogether superficial examination. When a man is imprisoned like this in life and in the conceptions directly connected with it, he can know nothing about what escapes from change, about the transcendent and immutable order, which is that of the universal principles; in this case there can no longer be any possibility of metaphysical knowledge, and we are always brought round again to this same conclusive statement of fact, which is the inevitable consequence of each of the modern West's characteristics. We say here change rather than movement, because the former word is wider in scope than the latter: movement is only the physical or rather the mechanical modality of change, and there are conceptions which have in view other modalities that cannot be brought under the heading of movement, and which even hold these modalities to be more strictly "vital" in character to the exclusion of movement in its ordinary sense, that is, as meaning just a change of position. There again, it would be wrong to exaggerate certain oppositions, since they only appear as such from a more or less limited point of view: for example, a mechanistic theory is, by definition, a theory which claims to explain everything by matter and movement; but if the idea of life were given its widest possible extension, movement itself could be made to fit into it, and it would be seen that the so-called opposed or antagonistic theories are, at bottom, much more equivalent than their respective partisans will admit; there is scarcely any difference between the two except for a little more or a little less narrowness of outlook. In any case, a conception which gives itself out as a "philosophy of life" is necessarily, then and there, a "philosophy of becoming"; we mean that it is confined to this state, and cannot escape from it (to become and to change being synonymous), which leads it to place here all reality and to deny that there is anything whatever outside or beyond, since the systematic mind is so framed as to imagine that it comprises within its formulae the whole of the Universe; that is yet another formal negation of metaphysic. Of such is, amongst others, evolutionism in all its forms, from the most mechanistic conceptions,

including gross "transformism," to theories like Bergson's; there is no room to be found there for anything except the state of becoming, and even then, strictly speaking, it is only a more or less limited part of this state that is kept in view. Evolution, all told, is nothing but change, backed up by an illusion with regard to the direction and quality of this change; evolution and progress are one and the same thing, to all intents and purposes, but the former term is often preferred to-day because it seems to give the impression of being more "scientific". Evolutionism is, as it were, a product of these two great modern superstitions, that of science and that of life, and its success is made for the very reason that both rationalism and sentimentalism find full satisfaction in it; the variable proportions in which these two tendencies are combined account very largely for the diversity of forms in which this theory is clothed. The evolutionists put change everywhere, even in God Himself when they admit Him: Bergson is no exception when he imagines God as: "a centre from which worlds shoot out, and which is not a *thing* but a continuity of shooting out"; and he added expressly: "God thus defined has nothing of the already made; He is unceasing life, action, freedom."⁴⁹ It is, then, nothing more nor less than these ideas of life and of action which our contemporaries are literally obsessed with, and which, as in the above case, intrude themselves into a domain that seeks to be speculative; in other words they suppress speculation in the interests of action which encroaches everywhere and absorbs everything. This conception of a God in a state of becoming, who is only immanent and not transcendent, together with that (which amounts to the same) of a truth in the making, which is nothing more than a sort of ideal limit, devoid of all present reality, is by no means exceptional in modern thought; the pragmatists, who have adopted the idea of a limited God for chiefly "moralist" motives, are not its original inventors, since what is held to develop must necessarily be conceived of as limited. Pragmatism, by its very name, poses above all as "philosophy of action"; its more or less avowed assumption is that man only has needs of a practical order, material ones and, together with these, sentimental ones. It

⁴⁹ *Creative Evolution*, p. 362.

means, then, the doing away with intellectuality; but, if this is so, why go on wanting to evolve theories? That is rather hard to understand; and if pragmatism, like scepticism which it only differs from with regard to action, wished to conform to its own standards, it would have to limit itself to a mere mental attitude, which it cannot even seek to justify logically, without giving itself the lie; but there is no doubt that it is very difficult to keep strictly within such bounds. However degraded a man may be intellectually, he cannot at least help reasoning, if only in order to deny reason; moreover the pragmatists do not deny it as the sceptics do, but they seek to reduce it to serving purely practical ends; as the followers of those who sought to reduce the whole of intelligence to reason, though without denying it a theoretic function, they have gone one degree lower-in the scale of degradation. There is even one point where the pragmatists carry their denying further than the pure sceptics; the latter do not contest the existence of truth outside us, but only our ability to reach it; the pragmatists, in limitation of one or two Greek sophists (who very probably did not take themselves seriously), go to the lengths of suppressing truth itself.

Life and action go closely together; the one's domain is also the other's, and it is to this limited domain that the whole Western civilization keeps, today more than ever. We have told elsewhere what view the Orientals take of the limitations of action and its consequences, and how for them, in this respect, knowledge is the opposite of action: the, Far Eastern theory of "Non-doing" and the Hindu theory of "Deliverance" are inaccessible to the ordinary Western mind, which cannot conceive that a man may dream of freeing himself from action, still less that he may actually come to do so. Besides, action is not generally considered except in its most out-ward forms, in those that strictly correspond to physical movement: hence this growing desire for speed and this feverish restlessness which are so peculiar to modern life; it is all action for the pleasure of action, and this can only be called agitation, for even in action there are certain degrees to observe and certain distinctions to make. Nothing would be easier than to show how

incompatible this is with all that concerns reflection and concentration, or in other words with the essential means of all true knowledge; it is indeed the triumph of dispersion, in the most complete turning of all things inside out that can be conceived; it means the definite ruin of whatever remains there may still be of intellectuality, if nothing comes to react in time against these fatal tendencies. Fortunately the excess of evil may bring on a reaction, and even the physical dangers which are inherent in so abnormal a development may end by inspiring salutary dread; besides, the very fact that the domain of action only admits of very limited possibilities, even if it may seem to do otherwise, makes it impossible that this development should go on indefinitely, and sooner or later the nature of things will forcibly impose a change of direction. But, for the moment, we are not bent on considering the possibilities of a future that is perhaps remote; what we have in view is the present state of the West, and all that we see of it is clear confirming evidence that material progress and intellectual decadence are closely knit together; we have no wish to decide which of the two is the cause or effect of the other, especially as we are dealing, in the main, with a complex whole in which the relations of the different elements are sometimes reciprocal and alternating. Without trying to trace the modern world back to its beginnings and to study the way in which its special mentality may have been formed, as we should have to do if the question were to be fully disposed of, we can say this much: there must have been already a depreciation and adwinding of intellectuality for material progress to become important enough to overstep certain bounds; but once this movement had started, with the concerns of material progress absorbing little by little all man's faculties, intellectuality went on growing gradually weaker and weaker, until it reached the-plight that we see it in to-day, with perhaps a still worse one in store for it, although that certainly seems difficult. On the other hand, the expansion of sentimentality is by no means incompatible with material progress, because the two are, fundamentally, things of almost the same order; we shall be excused for coming back to this point so often, as, unless it can be understood, there can be no understanding of what goes on about us. This expansion of

sentimentality corresponding to the progress of intellectuality will be all the more excessive and disordered for not meeting anything that might effectively check it or direct it, since this part could certainly not be played by "scientism," which, as we have seen, is far from being immune from sentimental contagion, and which offers no more than a false semblance of intellectuality.

One of the most noticeable symptoms of the preponderance acquired by sentimentality is what we call "moralism," which is the clearly marked tendency to refer everything to concerns of a moral order, or at least to subordinate everything else to them, especially what is considered as coming within the domain of intelligence. Morality in itself is something essentially sentimental; it represents as relative and contingent a point of view as possible and one, moreover, which has never been held except by the West; but "moralism," in the already defined sense of the word, is an exaggeration of this point of view, and only came into being quite recently. A moral code, whatever foundation is given it, and whatever importance is attributed to it, is not and cannot be anything more than a rule of action. For men who are no longer interested in anything but action, it is clear that morality must figure very largely indeed, and they attach themselves to it all the more because considerations of this order may be made to pass for thought in a period of intellectual decadence; it is this that explains the birth of "moralism." Some-thing of the kind had already come to light towards the end of the Greek civilization, but without growing, as far as one can tell, to the proportions which it has taken on in our time; in fact, from Kant onwards, almost all modern philosophy has been saturated with "moralism," which amounts to saying that it gives precedence to the practical over the speculative, the former being moreover considered from a special angle; this tendency reached its full development with the philosophies of life and of action that we have spoken of. On the other hand we have mentioned the obsession, which haunts even the most avowed materialists, of what are called "scientific morals," which represent exactly the same tendency; it may

be called scientific or philosophical according to individual tastes, but it is never any more than an expression of sentimentality, and this expression does not even vary to any appreciable extent. Indeed, a curious thing about it all is that the moral conceptions within any given sphere of society are all extraordinarily alike, in spite of their claim to be based on considerations that are different and sometimes even conflicting this is what shows up the artificiality of the theories by which each man strives to justify certain practical rules which are always the ones commonly observed about him. All told, these theories simply represent the particular preferences of those who formulate or adopt them; often a party interest plays no small part either: as proof of this no more is needed than the way in which "lay morals" (it matters little whether they are called scientific or philosophical) are put in opposition to religious morals. Besides, as the moral point of view only exists for social reasons and none other, the intrusion of politics into the same domain is not to be unduly wondered at; it is perhaps less shocking than the utilization, for similar ends, of theories which are made out to be purely scientific; but, after all, has not the "scientist" turn of mind itself been created to serve certain political interests? We doubt very much whether most champions of evolutionism are altogether innocent of any such hidden motive, and, to take another example, the so-called "science of religious" is much more like a weapon of controversy than a serious science; these are among the cases that we have already alluded to, where rationalism is chiefly a mask for sentimentality.

It is not only among the "scientists" and among the philosophers that the encroachment of "moralism" may be noticed; notice must also be taken, in this respect, of the degeneration of the religious idea, such as it is found to be in the innumerable sects that have sprung from Protestantism. These are the only forms of religion which are specifically modern, and they are characterized by a progressive reduction of the doctrinal element in the interests of the moral or sentimental element; this phenomenon is a particular instance of the general diminishing of intellectuality, and it is no

mere chance that the epoch of the Reformation coincides with that of the Renaissance, that is, precisely with the beginning of the modern period. In certain branches of contemporary Protestantism the doctrine has dwindled into nothing at all, and, as the worship, in a parallel way, has also been reduced to practically nothing, the moral element is ultimately all that is left: "Liberal Protestantism" is no more than a "moralism" with a religious label; it cannot be said that it is still a religion in the strict sense of the word, because, of the three elements that enter into the definition of religion, there re-mains no more than one alone. Having reached this stage, it should rather be classed as a sort of special philosophical way of thinking; besides, its representatives are as a rule fairly well in sympathy with the champions of "lay morals," which are also styled independent, and they have even been known on occasion to associate themselves openly with them, which shows that they are conscious of their real affinities. As a name for things of this kind, we willingly use the word "pseudo-religion"; and we apply also this same word to all the "Neo-Spiritualist" sects, which are born and prosper above all in the protestant countries, because "Neo-Spiritualism" and "Liberal Protestantism" spring from the same tendencies and from the same state of mind. The place of religion, owing to the suppression of the intellectual element (or its absence in the case of new creations), is taken by religiosity, or, in other words, by a mere sentimental aspiration, more or less vague and inconsistent; and this religiosity is to religion just about what the shadow is to the body. Here can be seen traces of the "religious experience" of William James (which is further complicated by its appeal to the "subconscious"), and also the "inner life" in the sense which the modernists give it, for modernism was nothing other than an attempt at introducing the mentality in question into Catholicism itself, an attempt which was broken against the force of the traditional outlook, whose sole refuge, in the modern West, appears to be Catholicism, save for individual exceptions which may always exist apart from all organization.

It is among the Anglo-Saxon peoples that "moralism" rages with its greatest intensity, and it is there too that the love of action may be seen in its most extreme forms, which shows that these two things are indeed closely knit together, as we have said. There is a strange irony in the current conception of the English as being a people essentially attached to tradition, and those who think so are quite simply confusing tradition with custom. The ease with which certain words come to be misused is truly extraordinary: there are some who have gone so far as to give the name "traditions" to popular habits, or even to conventions of quite recent origin, without importance or real significance. As for ourself, we refuse to give this name to what is only a more or less automatic respect for certain outward forms, which are sometimes nothing more than "superstitions" in the etymological sense of the word; true tradition dwells in the outlook of a people or race or civilization, and it springs from causes that lie far deeper. The Anglo-Saxon outlook is in reality quite as anti-traditional as the French and Germanic outlooks, but in what seems to be rather a different way, for in Germany it is more the tendency of "scientism" which predominates and the French tend more towards scholarship; little matter however whether it is "moralism" or the "scientist" attitude that prevails, for it would, we repeat once again, be artificial to seek to separate entirely these two tendencies which represent the two sides of the modern outlook, and which are to be found in varying proportions amongst all the peoples of the West. It seems that to-day the "moralist" tendency has fairly generally the upper hand, though it is only a few years since the domination of "scientism" was the more marked; but the one's gain is not necessarily the other's loss, since the two can be very well reconciled, and, in spite of all fluctuations, the common mind links them fairly closely together: it has room, at one and the same time, for all those idols that we spoke of earlier. However, a sort of crystallization of the different anti-traditional elements of the modern outlook is now taking place rather with the idea of "life," and what goes with it, as centre, just as a similar crystallization took place in the XIXth century round about the idea of "science," and in the XVIIIth about that of "reason." We speak of ideas, but

we should do better simply to speak of words, since all this is a triumph of the hypnotic power of mere words. What is sometimes called "ideology," with an unfavourable implication by those who are not its dupes (for in spite of everything there are still one or two to be met with who remain undeluded), is really nothing more than verbalism, and in this connection we can take up again the word "superstition" in the etymological sense which we have last alluded to and which designates a thing that survives in itself, when it has lost its real point. Actually the sole point of words is the expression of ideas; attributing a value to the words by themselves, independently of the ideas, failing even to base these words on any idea at all, and letting oneself be influenced by their mere sonority, is indeed superstition. "Nominalism," in its different degrees, is the philosophical expression of this negation of the idea, for which it professes to substitute the word or the image; and in confusing conception and sensible representation, it really leaves nothing but the latter. In one form or another, "nominalism" is extremely rife in modern philosophy, while formerly it was no more than an exception. This is very significant; and it must be added that nominalism almost always goes hand in hand with empiricism, that is to say with the tendency to make experience, and especially experience of the senses, the origin and end of all knowledge: this negation of everything truly intellectual is what we always come back to, as common element, at the bottom of all these tendencies and all these opinions, because it is, in fact, the root of all mental deformation, and because this negation is implied, as the necessary starting-point, in all that contributes to pervert modern Western conceptions.

So far we have been mainly concerned with giving a general view of the present state of the Western world considered with regard to its mentality; this must come first, for it is on this that all the rest depends, and there can be no important and lasting change which does not start by influencing the general mentality. Those who maintain the contrary are still the victims of a very modern illusion; seeing only the outward manifestations, they take the effects for the causes, and they readily believe that what they do not see does

not exist. What is called "historical materialism," or the tendency to trace everything to economic facts, is a remarkable example of this illusion. Things have reached such a state that the facts of this order have actually acquired, in the history of to-day, an importance which they never had in the past; but none the less the part they play is not and never can be exclusive. Besides, let there be no mistake about it: those "in control," known or unknown, are well aware that, to act effectively, they must first of all create and keep up currents of ideas or of pseudo-ideas, and they do not fail to do-so; even when these currents are purely negative, they are none the less of a mental nature, and it is in the minds of men that first the germs must be spawned that will later attain to outward realization; even for intellectuality to be done away with, minds must first be persuaded of its inexistence and their activity turned in another direction. This does not mean that we are among those who hold that the world is led by ideas directly; this again is a formula which has been much misused and most of its users scarcely know what an idea is, even supposing that they do not confuse it altogether with the mere word; in other terms, they are very often nothing more than "ideologists," and the worst "moralist" dreamers belong precisely to this category: in the name of the chimeras which they call "right and justice," and which have nothing to do with true ideas, they have had too fatal and lamentable an influence on recent events, an influence whose consequences are making themselves too keenly felt for it to be necessary to insist on what we mean. But the simpletons are not the only ones concerned: there are also, as always, those who lead them without their knowing, who exploit them and make use of them in view of much more positive interests. In any case, as we are continually tempted to repeat, what matters above all is to know how to put everything in its proper place; the pure idea has no immediate relation with the domain of action, and it cannot have the direct influence on outward things that sentiment has; but the idea is, none the less, the principle, the necessary starting point of all things, without which they would be robbed of any sound basis. Sentiment, if it is not guided and controlled by the idea, brings forth nothing but error, disorder, and obscurity; there is no question of doing away with sentiment,

but of keeping it within its legitimate bounds, and the same applies to all the other contingencies. The restoration of a real intellectuality, even if at first it was only within a limited elect, appears to be the sole means of putting an end to the mental confusion which reigns in the West; it is only this which could disperse the mob of empty illusions that encumber modern minds, and of superstitions far more ridiculous and unfounded than all those which are made a butt for random mockery by people who seek to be thought "enlightened"; and it is only that which will make it possible to find a common ground for understanding with the peoples of the East. In fact all we have said represents faithfully, not merely our own view, which in itself hardly matters, but also, what is far more worth considering, the judgment that is passed by the East upon the West, when the Orientals deign to extend their interest in the West beyond merely counteracting her invasive action by that altogether passive resistance of theirs which she cannot understand, because it implies an inner power of which she has not the equivalent, and against which no brutal force can prevail. This power is beyond life, it is superior to action and to all that takes place, it has nothing to do with time, and partakes of supreme immutability; if the Oriental can patiently undergo the material domination of the West, it is because he knows how relative transitory things are, and because he carries, in the very depth of his being, the consciousness of eternity.

ZINDA RUD IN JAVID NAMA - AN APPRAISAL IN THE PERSPECTIVE OF STREAM OF THOUGHT

Dr. Tara Charon Rastogi

My research-dissertation *WESTERN. INFLUENCE IN IQBAL*, which earned me a Ph. D. in English Literature, differs qualitatively from the works touching upon such topics done by others in several respects including the criterion worked out towards discovering the-subtle element called INFLUENCE. Psychologically and sociologically analysed an influence is a totality response vis-a-vis our thoughts, feelings, emotions and sentiments against the backdrop of our own, acquired and inherited both; an influence therefore may process out in acquiescence, total or partial besides the possibility of its manifestation in 'revolt' as well. An Urdu couplet seems to touch upon the point:

چھپے وہ مجھ سے تو کیا یہ بھی اک ادا ہوئی
وہ چاہتے تھے نہ دیکھے مری ادا کوئی

(If the beloved sought to conceal herself, is it not being coquettish?
Oh, why on earth she thought of keeping coquetry out of sight!

If the criterion worked out be correct and Iqbal's multi-dimensional poetry is analyzed in its light, there seems to emerge a wonderful interface of East and West. Iqbal's was a genius of the structure and stature born after generations; not every generation has such a genius. Iqbal's genius is 'East-and-West Continuum' and 'Islam-in-dialogue-with-knowledge-of-mankind.' A genius, it is perhaps rightly said, is 'one percent inspiration and ninety-nine percent perspiration.' In other words, the sterling quality going by the name of 'genius' is obtainable only through very hard labour undertaken towards a

definite aim. Iqbal's genius evolved right up to its reaching zenith from his being a voracious reader and his zeal for restoring Islam to its dynamic role in spiritual and material well-being of humanity. His genius almost unconsciously assimilates impressions and thoughts coming from any quarter, of course if not violative of Islamic spirit. For instance, Zarwan, met with in *Javid Nama* as symbolising the spirit of Time and Space (Space-Time Concept), seems to have been taken from Zoroastrian Religion; Zarwan or Zurvan according to Parsi religious conception, stands for Eternity or Infinite Time.⁵⁰ Iqbal's genius rendered ZARWAN, ZURVAN or ZRAVAN (pronounced in variations) into one Spirit symbolising Time (Eternal) and Space both in a way that Iqbalean product gets instinct with the conception of Einstein's SPACE-TIME CONTINUUM. This aspect comes in for full discussion in one chapter entitled '*Iqbal And Einstein*' of my research-thesis; reference has been made here to cite an example of the assimilative capacity of Iqbal's genius. Like-wise, he drew upon the works of William James (1842 — 1910) whose *Pragmatism* and *Varieties of Religious Experience* and *Psychology* exercised a deep impact on the frame-work of Iqbalean thought which was fundamentally Islamic. While the influences of *Varieties of Religious Experience* and *Pragmatism* permeating into Iqbal's *Reconstruction of Religious Thought in Islam* and his poetry were discussed in '*Iqbal and William James*', one of the chapters of *Western Influence in Iqbal*, Zinda Rud's connection with James' conception of 'Stream of Thought' remained at the time outside my critical sight. Attempts towards understanding this aspect may be appropriately made keeping in mind a few points which seem to be quite essential.

Javid Nama, which is one of the major works ranking with *Zabur-e-Ajam* and *Bal-e-jibril*, is a compact work; no characters and no poems hang loose. Zinda Rud makes his appearance in 'Falak-e-'Atarid' (Firmament of Mercury) and continues right up to the end of the poem. Accompanied by Rumi, Iqbal

⁵⁰ Dadabhai Bharcha, M. S. *Zoroasterian Religion and Customs*, Bombay: 1928, p. 31 and Parpinder, G: *The Worlds Living Religions*, London: 1965, p. 65.

was in the midst of ecstatic scenario, appearing as the sweep of the Self and a vast expression of Divinity. Rumi introduces Zinda Rud saying:

گفت روی ذره گردوں نورد!	در دل او یک جهان سوز و درد
چشم جز بر خویشتن نکشاده	دل بک نا داده، آراده
تند سیر اندر فراخانے وجود	من ز شوخی گوی اور آندہ رود" ⁵¹

(Rumi said: he is a grain soaring in heavens;
His heart brims with cosmic longings.
Except at his own Self he looked at none
Free, traversing swift in expanse and vastness;
A little humorously I call him 'Living Stream')

In reply to Afghani Zinda Rud (Iranian pronunciation: Zinde Rud)says:

در ضمیر ملت گیتی شکن	دیده ام آدیش دین و وطن!
روح در تن مرده از ضعف یقین	نامید از قوت دین میں
ترک و ایران و عرب مست فرنگ	ہر کسے را در گلوشت فرنگ
مشرق از سلطانی مغرب ضراب	اشتراک از دین و ملت برده تاب!

(The Muslim nation's world-shaking heart

⁵¹ Iqbal, 'avid Nama, p. 61.

Is riven betwixt and between Islam and Country⁵²

Weak conviction has atrophied Muslims' soul;
They are hopeless of the strength of their vital religion

Enchanted and enthralled by Europe's ways are Turks, Iranians, and
Arabs.

The East lies racked and ruined by Western Imperialism, Communism has

⁵² *ibid.*, p. 62.

rendered religion and its followers bereft of all effulgence.)

Then listening to what Afghani and Sa'eed Halim Pasha say about religion and 'motherland' (English usage: Fatherland), Communism and Imperialism, and East West, Zinda Rud (Living Stream) heaves out a heavy sigh

زورق ما خاکیاں بے ناخدا است کس نداند عالم قرآن کجاست⁵³

⁵³ *ibid.*, p. 67.

(The boat of ours, as it were, is quite uncaptured;

None, alas, knows of the Qur'an's direction.)

Afghani goes into the secrets contained in the Qur'an with regard to Adam's Vicegerency, the sovereignty of God, the world's being our possession, and virtues of insightful knowledge. Cutting in Zinda Rud enquires:

محکمتش	وا	نمودی	از	کتاب	هست	آن	علام	هنوز	اندر	جاب!	
پیش	مایک	عالم	فرسوده	ایست	ملت	اندر	خاک	او	آسوده	ایست	
رفت	سوز	سینه	تاتار	و	کرد	یا	مسلمان	مرد	یا	قرآن	بمرد!

(Revealed are the Qur'anic principles and the fact)⁵⁴ There are realms and realms still veiled.

⁵⁴ *ibid.*, p. 75.

Why do you not unravel those secrets?

Why do these not get out of our conscience?

We and the time-worn condition of ours are there?
And the Nation seems contented with the rotten state of affairs.

Departed is the verve and vigour of the Tartars and the

Kurds;

Whether the Musalmans are no more or the Qur'an itself is dead!

When asked by Rumi to regale themselves (Rumi, Iqbal, Afghani and Halim Pasha) with a '*naghma-e-mardi*' (a song of manliness) Zinde Rud breaks forth:

اين گل و لاله تو گوئي كه مقيم اندهم راه پيا صفت موج نسيم اندهم

معنی تازہ کہ جوینم دنیا ہم کجا است
 حرفے از خوشترین آموز و دراں حرف بسوز
 مسجد و مکتب و میخانہ عقیم اندہمہ
 کہ دریں خانقہ بے سوز کلیم اندہمہ
 اہل توخذ یکٹ اندیش و دونیم اندہمہ
 مشکل این نیست کہ بزم از سرہنگامہ گذشت
 مشکل این است کہ بے نفل و ندیم اندہمہ

(The rose and the tulip which seems to have lasting smell

and beauty,⁵⁵

Are almost like the wafting breeze speeding along. Where are the meanings (mysteries) that we fondly seek? The mosque, the academy, and the tavern — all these are unknown to the seekings of ours!

From down the depths of your own *Self* seek the *Spark* (to lead you on in its effulgence) to illumine.

⁵⁵ *Ibid.*, p. 83.

Religious institutions are now entirely bereft of the Moses'

ardent spiritual flame.

What piety and righteousness these recluses not given to

talking do have?

Who are with hair uncombed and cloaks dirt-laden!

Within one Haram (Place of worship) they have built in innumerable houses of worship!
The persons worshipping ONE GOD have developed split personalities:

This is no danger that we are overtaken by a crisis;

What does constitute the danger is that we are provision-

less and leaderless.)

From 'The Firmament of Mercury the company consisting of Rumi, Iqbal Zinde Rud 'The Firmament of Mars (Falak-e-Mirrikh) across the Firmament of Venice (Falak-e-Zohra); Zinde Rud, keeping silent while journeying in the Firmament of Venice, speaks out after Rumi's introducing themselves to 'The Martian Wizard:

من ز ا فلام، رفیق من ز خاک
مرد بے پرواہ و نامش زنب رود
سرخوش و ناخوردہ از رگہمائے تاک
مستی او از تماشاے وجود
یک زماں مارا رفیق راہ شو
در تلاش جلوہ ہائے نو بنو

(I am from Heaven and my friend is from the Earth,⁵⁶

Quite inebriate even without his having tasted any liquor. With no attachment he is, Zinde Rud (Living Stream)

Questing for ever-new panoramas and vistas

⁵⁶ *Ibid.*, p. 104.

We request for your company for a little while.)

Then touring through *Marghadin* (Territory of Mars) follows; a territory with no lords and bondsmen, no troops and armies; a land of plenty and pleasure it is where science is harness for weal alone, not for woe. Hakim-e-Mirrikhi (Mars' Seer) points- to the state of affairs:

کس دریں جا سائل و محروم نیست عبد و مولا، حاکم و محکوم نیست

(*Mars has no destitutes; no lords and no slaves;*⁵⁷)

There is no Ruler and there are no the ruled, either.)

This makes Zinde Rud to observe:

سائل و محروم تقدیر حق است حاکم و محکوم تقدیر حق است
جز خدا کس خالق تقدیر نیست چاره تقدیر از تدبیر نیست

(*The indigent and destitute attribute their fate to God;*⁵⁸)

Being masters and slaves depends upon His Decree.

None except God shapes our destiny;

No efforts can avail against Destiny.)

These words are most unlike Iqbal's. Hakim Mirrikhi's reply consist with the poet's; all in all, he holds that the people have bartered away the self, or else Destiny has a number of, rather unlimited, formulations. Right efforts can bring about radical change for the betterment of humanity.

Zinde Rud and Rumi then reach The Firmament of Jupiter (Falak-e-Mushtari) and meet there the holy spirits of Hallaj, Ghalib and Quratal-'Ain who have declined living in Heaven and preferred eternal wandering. Zinde

⁵⁷ *ibid.*, p. 107.

⁵⁸ *ibid.*, p. 107

Rud's conversation with all these is illuminating enough. Conversation ranges over wide regions of philosophical boggings and beguilings. Hallaj, Tahira and Ghalib are there, their countenances glowing with blazing fervour. Seeing Zinde Rud in a state of consternation and bewilderment Rumi tells him:

گفت رومی این قدر از خود مرد / از دم آتش نوایاں زند شو
 شوق بے پروا ندیدستی نگر! / زور این صہبا ندیستی نگر!
 این نواہا روح را بخشد ثبات / گرمی او از درون کائنات!

(Rumi observed: Do not get Iost,⁵⁹

Be alive to the melodies of these fire-brand poets.

Lo and behold, Ghalib, Hallaj and the Persian-maid Tahira
 Were the persons who caused tumult and turmoil oil

in Islamic domain.

The poetry of theirs has deathless breath to our souls; They were inspired
 by cosmic incandescence.)

Iqbal stands for intense living; his conception of Islam does hardly conflict with the sort of life they lived, of course according as Iqbal envisages.

Passing through The Firmament of Saturn where the treacherous and condemned Spirits of Sadiq and Ja'far against the backdrop of India's bewailings are sighted and pointed out by Rumi to his companion Zinde Rud (Living Stream), they reach beyond the Firmaments (Aan suay Aflak: Towards Those Firmaments) where they meet German Philosopher Nietzsche, Sharfunnisa's Palace, saint Hazrat Syed Ali Hamdani, Mulla Tahir Ghani of Kashmir valley, Bhartri Hari, Abdali, Tipu Sultan (Martyred king of Karnataka), Nasir Khusro 'Alavi, the Houries of Paradise *et a/*. Nietzsche, as

⁵⁹ *ibid.*, p. 116.

described by Rumi (who is in fact Iqbal himself, his spokesman, was a philosopher of great sublimity comparing with Avicenna (Ibn-Sina), and Hallaj; he was a man of parts and had he lived during Prophet Muhammad's times his intellect must have blossomed into full consummation (*Suroor-e-Sarmadi*). Towards the Gardens of Paradise they sight the Palace of Sharfunnisa described one by Rumi as one consecrated to God and committed to uphold His Commandments with prayers and sword and ecstatic solitude. In the presence of Shah-e-Hamadan, Living Stream (Zinde Rud) waxes eloquent:

از خواهم سر یزداں را کلید طاعت از ماجست و شیطان آفرید
زشت و ناخوش را چنان آراستن در عمل از ماکوئی خواستن!

I beg of you to unravel this mystery⁶⁰

God demands of us submission after His having created Satan!

The evil is garishly embellished and yet we are required to be righteous!

Then, being told that one who attains to comprehending himself can forge ahead by changing the state of affairs to advantage, Living Stream (Zinde Rud) pours forth as many as twenty-six couplets: a few containing the quintessence are mentioned below:

ذیر گردوں آدم آدم را خورد ملتے بر ملتے دیگر چرد
از خودی تائبے نصیب افتاده است در دیار خود غریب افتاده است
دست مزد او بدست دیگران مانی رودش بہ شست دیگران

(Why, in the world does man dare devour another man?⁶¹)

Why, does a nation feed on another nation?

⁶⁰ *Ibid*, p. 159.

⁶¹ *Ibid*, p. 161.

Until (it seems) the persons keep away from leading a self-assertive life,
We would remain alien -like in our own land:

Labour's earnings would remain in the hands of the capitalists, (Oh How long.)

The fish of their pond gets into the net of others, (Why?) Shah-e-Hamadan's reply accords with the above views. *Jan-e jalwa mast* (the Self in its vision ecstasied) knows no barriers impregnable and unsurmountable. To the query what gives a firm basis to kingdom, Shah-e-Hamadan replies that the Self is active as Love during peace and is granite-hard during warnings. Then, Ghani cuts in; his reply may well be construed as his putting accent on 'being patriotic'; details would be inappropriate here since their being not apropos to the topic in hand. Zinde Rud beaks into a *ghazal* consisting of as many as seven couplets touching upon 1 the role of Reason and Love; Self-assertiveness with Love is the summum bonum.

Before finally departing from Paradise, the Living Stream (Zinde Rud) come across Bhartri Hari (Indian saint-poet), Nadir, Abdali and Tipu Sultan (the martyred king); Zinde Rud's questionings draw forth quietening proper replies quietening his curiosities. He finds Paradise shot through with Divine Gleams (*Tajalli bai oost*) he seeks nothing short of HIS VIEW (*Did-e-oost*). He then hears the DIVINE GLAMOUR's VOICE (*Nida-e-jamal*) which emboldens him to seek enlightenment on the following issues:

ملت چو مرد، کم خیز و زقبر چاره او چیست غیر از قب و صبر!

(How is it? Seldom do the nations when vanquished rise again!⁶²

How can passive resignation or final non-existence be avoided? Oh, How?)

Being told that man's is an atom destined to be an effulgent sun too if he asserts his SELF, he then ventures to ask:

⁶² *ibid*, p. 191.

من کیم تو کیستی عالم کجاست درمان ماو تو دوری چراست
من چرا در بند تقدیرم کجے تو نیری من چرا میرم کجے

*(Who am I? Who are YOU? Where is the cosmos?)*⁶³

Why are we distanced?

Why shackled in fate am I?

Why? I pass away but You don't?)

پوش این مرد نادان در پذیر پرده را از چہرہ تقدیر گیر
انقلاب روس و الماں دید ام شور در جان مسلمان دید ام
دیدہ ام تدبیر ہائے غرب و شرق وانما تقدیر ہائے غرب و شرق

*(Ignorant as I am I crave your indulgence;)*⁶⁴

Could you explain DESTINY in a clear-cut way?

I have learnt of the Revolutions in Russia and Germany;

I know of the tumult and turmoil raging in the hearts of the Muslims.

The endeavors of both East and West are pretty known;

How would their destinies shape out, pray: Could you tell.)

Then, a melody suffusing his entire being resonates the message that the way out lies in forging ahead with self-assertiveness; he should get disenchanted with EAST and WEST. The individual Atom can cultivate the Sun's Effulgence.

⁶³ *Ibid.*, p. 193.

⁶⁴ *Ibid.*, p. 194.

The foregoing discussion centres on the role played by Zinde Rud, Living Stream. Where does William James' conception of Stream of Thought/Consciousness enter here in Iqbal's work *Javid Nama*? — is a question that seen', to call for going into detail of the conception. James' master-piece *The Principles of Psychology* was published in 1890; in an essay written in 1879 the phrase used was 'stream of mental action' which in the published work appeared as 'The Stream of Thought', being the caption of one chapter. A year later, in the shorter version of the book it came to be entitled 'The Stream of Consciousness' (p. 44 Jacques Barzun: *A Stroll With*

William James, Harper, New York: 1983). Again, let us turn to Barzun: ". . . *When the stream is closely examined its features are found to be these: (1) Every thought is part of a personal consciousness. (2) Within each consciousness, thought is always changing. (3) It is sensibly (i.e. felt as) continuous. (4) It appears to deal with independent objects. (5) It is interested in some and rejects others continually. . . . The self is thus 'a system of memories, purposes, strivings, fulfillments or disappointments. . . (It) is the native flooding of thought, which in its irregularity also contains the unchartered powers we call imagination and intellect. . . . Mind is the original artist. It works by selection; it fashions percepts and concepts charged with meanings and associations; it handles and recalls them by signs and symbols. Around each object of consciousness a fringe of feelings perpetually flows, which assigns to each pulse its quality and importance, the whole unrolling scene unified by the sense of self-identity and directed by attention and interest.... To say ... that somebody is 'emotional' and somebody else 'intellectual' is to misdescribe. The 'emotional' is full of ideas, too.... It is that 'reactive spontaneity' that makes experience our experience. . . . (It) is a collective name for the full exertion of all the powers of mind at their best: perception, reason, conception, discrimination, emotion, and imagination...⁶⁵*

The 'quote' gives a resume of what the term Stream of Thought/Consciousness implies. Iqbal was a vastly learned man; his 'inspiration' (genius) was the outcome of seriously prolonged 'perspirations' (sweatings over studies of several disciplines of East and West). It does not therefore seem unlikely that he hit upon the term '*Zinde Rud*' instead of using 'T' or 'Iqbal'; *when he* could utilise Zarathustra's Zurwan/Zarwan (Zravan) modelling him on his own framework of thoughts and emotions. Likewise,

⁶⁵ Jacques Barzun., *A Stroll with William James*, Harper, New York, 1983, pp. 34- 82.

he seems to have done with James' term, possibly being reminded of the river Zinda Rud flowing past Isfahan. Such a character as Zinde Rud without which the work 'avid *Nama* would have looked insipid and colourless does certainly call for further insightful research. Live and inspired, Zinde Rud is Iqbal himself, a multi-splendoured genius whose radiance does defy being bedimmed by the efflux of time.

Universal Values - The Way To Peace And Fulfilment

A. K. Brohi

In the realm of Theosophy, we have a remarkable confluence of the diverse streams of insight and understanding pouring into the hinterland of what may be called *wisdom about God*, who is regarded as the ultimate ground of religious belief and practice. This is, of course, specifically true about all particularized expressions of various religions of mankind but then Theosophy tries in the light of its own understanding of man's religious nature to study what it considers is the common denominator if not *raison de etre* of man-kind's longing for transcendence in the direction of the Herebeyond. The early pioneers of theosophical movement drew heavily upon the wisdom of East to sustain this thesis. Primarily they placed emphasis not so much upon Eastern wisdom as presented by its sages, philosophers and metaphysicians as upon its occultists, but in the present address one is spared the difficult duty of expounding the specific contribution which theosophy has made to the study of secret doctrine of antiquity for the theme we have to consider is a topical one, nay one which may be regarded as the dominant subject to expound in the Contemporary world, namely "Universal Values — Way to Peace and Fulfilment."

The term 'value' has been discussed from variety of perspectives by modern philosophers of the West and there is such a thing in existence as the branch of philosophy called *axiology* — which is the same thing as statement regarding theory of value. We often hear it said that "Men lose sight of *higher values* when they practise power politics" or sometime it is said that "the task of education in humanities is to make students aware of *values of life*". Value is by now a favourite word amongst sociologists, psychologists and psychiatrists. The Readers Digest Great Encyclopaedic Dictionary puts four meanings on the word 'value'; one, amount of commodity, etc. i.e. considered equivalent for something else; material or monetary worth of a thing (face value, surplus value, surrender value of modern economics are essentially variations on the theme of term economic value). Secondly, value means precise number of amount represented by a figure or gratuity. Thirdly, it

means relative duration of tones signified by note; fourthly, relation of part of picture to others in respect of light and shade, part characterized by particular tone and generally it means act of estimating value, of appraising it profession-ally as envisaged in expression like things have high value and are priced, esteemed and appreciated. This vast and impressive array of meanings of the term 'value' show the range of its reach in contemporary thought.

It would suffice to notice for the purpose of present analysis that God has endowed human soul with two faculties: one has reference to its ability or capability of perception and speculation or by which it discerns, views and judges of things and this may be comprehensively called the *faculty of understanding*. The other faculty is that by which the soul does not merely perceive and view things but *it in someway inclined with respect to the things it views or considers*. In other words it may be inclined to them or may be averse to them. In this role the second faculty enables the soul to either *like or dislike things or of which a spectator is either pleased or displeased with them*. And it is in that aspect that its actions are determined and governed by the way it is *affected* by the things it perceives and contemplates. It is this second capacity that enables man to bestow value upon things and events. Psychological theory of value asserts that any object, even an object of outside world, has a value only in so far as it produces in the mental life of a subject certain psychic experience peculiar to the individual. According to some theories this experience is the feeling of pleasure (or displeasure); according to others desire, according to some the feeling of value.

The question which we have to answer in this address accordingly may be formulated as follows: What is it precisely that confers value upon *the life* that we perceive within ourselves and whose meaning we try to contemplate? The answer to this question is that value of life is the character which it acquires by being an object of our concern about it. Is it a case of "Dust we are and to dust we return"? Or, is it experiencing Pull of some kind of promise? If so in what we can find its fulfillment. Are they "heat and worry of life's long day of suffering" a permanent feature of it — or can we some-how attain to a total state of peace — of reaching a condition where "no fear would come upon us, nor shall we grieve or have a cause to regret its advent in our being?" In the context of what may be called theosophical approach to the problem of "Universal Values — Way to Peace and Fulfilment" attention must be confined to exploring the specific question relating to the purpose or function of life as its subject perceives it. He may raise the question: In what precisely does the value of my life consist? In what way must I spend my time on Earth so as to make the most of it?

Considering that this question would be raised in the course of one's life as an *ongoing process* and that too in the utter absence of any firm awareness'-or knowledge as to what the ultimate end of life is going to be, one would not be in a position to rely on one's own powers of understanding the Nature of the riddle of life much less find a worthwhile solution to it. This life, according to the "Wisdom of Ages" or "grand old traditions of mankind" does not merely mean the *existing life* but life which is to emerge after the earthly term of one's life is brought to an end. It thus raises the question of approach to death. It is necessary to base one's judgment on the value of life not on what one comes to think about it but upon what the human tradition in which one is embedded or steeped conceives it, or upon what is it that the best that mankind has produced, the sages, the saints, the savants and the mentors of the human race, have said about it.

It is in that perspective that the further question whether the end of life or its meaning is determined by attainment of peace or fulfilment can at all arise. Of course Man can cognitively form the opinion whether this life as it appears is intrinsically acceptable to him. Is it a primrose path of prosperity? Does it appear that all is well with the world — that ultimately the human condition is on the whole satisfactory? But we know that contrary opinion, namely that human condition, as one encounters it, is one of deep suffering or sorrow and that the only way to enter into a worthwhile relation-ship with one's life is to escape its rigor and minimize its suffering. If so, how?

The basic fact about the life of man is that there is something in man called *spirit* which is united in substance with what is termed *flesh* and both of them are lodged in what may be called the universe of matter — of time, of what is continually elapsing. This is, on the face of it, an unhappy condition for man in that it has made man dream of a golden age when he was freed from the contradiction expressed in the adage, viz., the *spirit is so* willing but then *flesh* is so weak. Whether that golden age was at the beginning of creation of man and man thereafter has suffered fall and that golden age lies at the end of the historical process after man has, thanks to his knowledge, learnt to harness forces of Nature for bringing the relief and redemption of man is for the purpose of present argument irrelevant — for, in either case, the present state of man's life exhibits him involved in a miserable condition. Indeed the "tragic perplexity" in which man finds himself placed is referable to the fact that we can neither refuse the existential human condition nor accept it purely and simply. Our existence compels us to stay in the mid-stream of the river of life and does not easily let us change our horses

in the 'midstream' and all man can do is to stay put there with patience and try to listen to the voice of those who have attempted to point out a way

in terms of which he can go beyond his present predicament and so to conduct the enterprise of life that he could obtain worthwhile results of his struggle. This voice is the voice of the prophets of universal religions and Theosophy attempts to rationalize their wisdom just to enable man to define his attitude with reference to them in a positively clearcut and constructive way.

We have just noticed that human condition is unhappy precisely because man is at once flesh and. spirit, a sort of being in transition and he may well be on that account called the *intermediate species* which lies between the animal and the angelic state of being. Heavens, no doubt, proclaim, according to our poets, the glory of God but the earth, upon which our lot is cast, has also been characterised by them as a "vale of tears and turmoil" and man's life itself is "a long headache in the noisy street" and his life is a "long shadow in a weary land". The material universe abounds in wonders and is resplendent with great deal of beauty that no doubt makes evident to discerning eyes the imprint of the holy spirit who made it and al-though there is a huge catalogue of events and occurrences which show nature to be "red in tooth and claw" and man's life to be "nasty, brutish and short", there is also the other side to the coin, viz., that the landscape of life presents evidence of enormous goodness and generosity of being. Indeed human nature itself, particularly as seen through the world of senses, points out much that is enchanting and enthralling with its sweetness and joy and human nature itself is good in essence and this is true for every living being, but pre-eminently for man, to live, is a marvellous gift and yet", says Jacques Maritain, "for all that, a spirit whose operations have need of matter, surmounts matter only with a formidable price and by running at man's risks and is most often scoffed at by it. The "irit is immortal and matter imposes the law of death on the body animated by it. Man has more grandeur than the Milky Way; but how easy is evil for him, how inevitable (if one considers the species collectively) it is, in a being in which sense and instinct and the animal unconsciousness ask only to elude or to twist the judgment of the mind. As for suffering it is already a

frightful thing to see; animals suffer, but the suffering of beasts is of small account in comparison with the suffering that pierces a flesh united to spirit or spirit itself." Hamlet tried to refuse the claim of this human condition by attempting to commit suicide but was restrained from doing so because of the

thought that perchance this life may itself be a preface to another life and that after he takes his life he may land himself in a situation where perchance he may have "to dream" — ugly and unbearable dreams, — a possibility which he could not exclude and this thought itself was sufficient to restrain him from refusing life by putting an end to it. This life does not only confront us with its miserable condition. We live in world of fellowship — in a world where one hears the long cry of the poor, and the ailing ones and sees naked suffering, horror, anguish without consolation. Perforce man comes to the conclusion that this is the background of the world in which the spirit within him must struggle ceaselessly against the fortuitous and the useless and focus its attention upon absolute ways in which it might find the arena for amelioration of the conditions of life for all. There can be thus no simple and pure acceptance of life for its own sake. And if man does so it is because he recognizes the reality of his true habitat in a world which *lies beyond this one* — a world which, for want of better expression, can be called the world of Holy Spirit. Accordingly by accepting this life man accepts the total plan of the Lord of life — not only accepts it but thanks Him for having lodged human nature in this world which is imperfect, full of sorrow and suffering so that by a continual struggle against it man may try to reform it in the light of his ideals and values — of goodness, of truth, of justice, of beauty and purity. In effect man accepts the world not as it is, but as it ought to be made — it provides the opportunity to him to go *beyond* it, to have a vision of his Maker who alone is perfect and to experience the joy of the vision which his faith affords him of the eternal and abiding Face of the Lord — who alone shall prevail whereas everything else will have gone the way of all flesh. The man who accepts the world with this type of reservation has

decided to live *religiously* and he has constrained himself freely not to surrender himself at the altar of the life of senses but to rise above their hold over him — so that even if he, as a result of infirmities inherent in human nature, were temporarily to fall below the standard of the conduct which his religious constraints prescribe for him then *he will repent one day of the sin thus committed* by him in contempt of the religious law. He is fated to return to his Maker in humility to ask for his forgiveness with the unshakable faith that it will be granted.

This is not the only way in which religious man accepts "the miserable conditions of life" He may resort to negotiating other paths to peace and fulfilment. The pathway hitherto described to avail of life's opportunity for man has reference to man's ability to transcend human existential condition in a manner which implies a certain mode of acceptance of it as when he may say to himself that he will through his own forces but with God's grace strive consistently with his true Nature to experience the joy of having the Vision of the Lord and in the process realise the Kingdom of God on Earth. This is essentially the Moslem way — the way of the Prophets of universal religion. Islam considers Prophet Abraham, Jacob, Isaac, Ismail, Moses, David and Jesus Christ as Moslems and what they taught was Islam. Of course, there is doctrinal variation to be noticed between what these Prophets taught according to Islam and what they taught according to their followers. But, by and large, the prophetic religions, according to the contention of Islam, have taught one and the same thing: and that is oneness of God and man's accountability for his actions herebelow and this life is to be treated as a seedplot of Hereafter. Of course, there are various religions outside the orbit of prophetic religions and these may be called "philosophical religions" because the founders of these religions have not claimed that they were commissioned by God to convey a message or to bring a law to people for establishing a fixed and a firm way in terms of which believers could negotiate their way to God.

A word or two about this category of religions in the context of ideas that have been presented in this paper may be in order.

Every religion provided a framework in which the existential human condition could be transcended — for the attainment of salvation or redemption. The procedure described so far is for the devotee not only to accept human condition but to transform it by participating in the enterprise of history and adopt an amelioristic attitude to the world of external conditions. But the Indian spirituality, by and large, teaches its votaries, to transcend human condition in a manner which suggests a certain manner of *refusal* of it insofar as man through his, own forces alone undertakes to transcend his limitations — which of necessity would mean that he engages himself in an effort to go against himself or as in the case of Christian claim, man can transcend human condition while consenting to it as this is rendered possible because in his case, *a new situation* has intervened in that God has incarnated himself as Christ and enabled man to transcend his situation not by going against the grain of his Nature but by moving upon a plane which is higher than Nature itself. Here faith in the Saviour serves. The Buddhist spirituality is akin to the Indian one in that Buddha too struggled to acquire enlightenment and did succeed in doing so without his being selected by God to act as a vehicle of the law which he was to bring or the way 'he was to point out to his followers to attain Nirvana. The Christian's way, after Jacques Maritain, could be called the Gospel solution. Jacques Maritain goes on to remark, "By abolishing, by means of a sovereign concentration of intellect and the will, every particular. form and representation, the wisdom of India adheres, through the void, to an absolute which is the Self in its pure meta-physical act of existing— experience conceived as leading at the same stroke either to the transcendence of being (*Atma*) or to total *indetermination* (Nirvana). All forms of illusion in the midst of which our life is spent have disappeared everything is denied and annihilated, there remains only the self in contact with itself. It is clear that to attain such an end (not to speak even of the powers for which one is to search without pause) is to transcend

human condition by dint of spiritual energy but it is also clear that it is to transcend it *by means of refusal*. The living delivered — one gains a sort of intermediary omnipotence by falling back upon himself and separating himself from everything human - he enters into a solitariness incomparably more profound than the solitude of the Hermit, for it is his soul itself which has broken with men and all miseries of their terrestrial existence to pass beyond illusion and to deliver oneself from transmigration or at least from all the sorrow that it carries with it and perpetuates, is at the same stroke to *deliver oneself from the human condition*." (Consult generally on the line of argument presented by Jacques Maritain in his *Moral Philosophy*, New York, Charles Scribner's Sons 1964). Jacques Maritain considers the weakness of the spirituality of India in their refusal of the human condition because whatever victories it may bring, in the end there is a final defeat brought about by the apotheosis of *courage* and *pride*, that are precisely the two of the most profound features of human condition. In his words, "The Hindu or Buddhist sage quits human condition only by showing in spite of belonging to it I mean by the very negations to which he is led and all the apparatus of exercises and techniques he needs, and by the kind of never-ending *tours de force* by means of which he comes to transcend his condition. And the living delivered — one still is to die like others he is not delivered like the others which is the most tragically human in the human condition." It is not necessary to explore this line of I thought further.

As I come to the end of this address, I suggest we may have a second look at the theme of this key-note address. If the approach I have made to the understanding of the precise subject matter for which the formulation was evolved to evoke it, namely *Universal Values — Way to Peace and Fulfilment* be not true in that it is not only life as such that can be ascribed a universal value since life is the one common phenomenon which affects all human beings, we will be driven to assign some credible meaning to the term "Universal' Values" in the theme under examination. There is hardly any other universal value that one can think of in this regard. Of course, one could talk of the values like *truth, beauty, goodness, justice*, etc., as universal values following the Greek tradition; but then what is the;

sanction behind the autonomy, sanctity or the indispensability of these values and how are they to be regarded as the indispensable means for reaching peace and fulfilment. *On whose authority are these values to be treated as the necessary means* for leading a man to the way of *peace and fulfilment*. To be at peace is to be left in a state of which no alien element disrupts the harmony of the whole man and the term fulfilment necessarily means realization of the potential inherent in any organism or entelechy — enrichment' of whole can take place by the accretion of new material or transmutation of its unripe part or element into becoming ripe and thus transiting from the raw to the serviceable element in the cosmic process, can be brought by Higher Presence on Finite Consciousness. It will take me too long to talk about peace and fulfilment in the context of the present theme if only because peace is not absence of war or disquiet or unrest. It is a positive condition of being even as silence is not mere absence of sound but is an audible oracle that has its orientation at another, albeit, level of being of which very little can be said in conventional terms. And fulfilment of man can only be from the point of view of the higher Being who presides the coming to fruition of something that was to begin with dead or immature or tender or an inchoate promise for a possible development!

ALLAMA IQBAL AND THE YOUNG GENERATION

Prof. Muhammad Munawwar

Dr. Muhmmad Rafiuddin, in his book *First Principles Of Education*, states:

"Every ideology has its own system of education which is designed to foster the love of that ideology in the growing generations of the community of its lovers and to create in them that special type of knowledge, skills, habits and attitudes which is relevant to that ideology and which they need in order to be able to love and serve the ideology whole-heartedly. Every ideology has, moreover, its own philosophers of education who, by their reasoning, justify their own ideology as the only true and sound basis of education and every ideology has its own practical educators who exert themselves to put into practice the educational thought of its philosophers. It is clear, there-fore, that the educational system of one ideological community can never serve properly the educational needs of another community."

Allama Iqbal, both as a philosopher of education and as an educator knew what system of education his community, i.e. the Muslims, were in need of. British imperialists had imposed a system of education in the Sub-Continent which served their purpose. They needed petty officials and clerks. The educational institutions like factories, produced that commodity in plenty. How could a Muslim student grow into a genuine believer and a person of character through the education he or she got in such schools, colleges and universities. Allama Iqbal aptly deplored that sorry phenomenon thus,

Masters of education have strangled you. How can you then proclaim "No god but the God"-⁶⁶

The education which Muslim children were getting could not mould them into good Muslims. For Allama Iqbal a good Muslim meant a person who- had one integrated personality, possesses fidelity and a developed acute sense of responsibility. As is obvious, teaching is of two kinds. One is conducted in words, expressions, lectures, books etc. and is called "instruction". The other deals with spiritual upbringing, character-building, etc., and is called "education". Generally speaking one is related to letters and the other with actions. But the tragedy is that in the contemporary era almost all over the world, "instruction" stands for "education". Hence the aim of character-building is being universally neglected. This is why individuals without humaneness come out of "instruction centres" miscalled "educational centres". Allama Iqbal saw this and bemoaned over it.

Dr. M. Rafiuddin in his book, mentioned above quotes Professor Clarke who maintains:

"For whatever else education may mean it must mean primarily the self-perpetuation of an accepted culture — a culture which is the life of a determined society."

If a growing generation is not brought up to inherit the culture of the nation or society to which it belonged, then the link with the past breaks up, hence that particular culture cannot continue to develop and flow on. Allama Iqbal in 'Jawab-i-Shikwa', written in 1913, had stressed the same point:

⁶⁶ *Kulliyat-e-iqbal* (Urdu), Lahore, 1984, p. 338.

باہ کا علم نہ بیٹے کو اگر ازر ہو پھر پر قابل میراچ پدر کیونکر ہو

"if a son is not Well-versed in the knowledge his father possessed then the son cannot be deemed entitled to inherit what his father bequeathed."⁶⁷

In a short poem entitled نتائج تعلیم اور اس کے نتائج (Education and its Results) Allama Iqbal referring to the young generation states:

خوش ت وہیں ہم بھی جوانوں کی ترقی سے مگر اب خنداں سے نکل جاتی ہے فریاد بھی ساتھ
ہم سمجھتے تھے کہ لائے گی فراغت تعلیم کیا خبر تھی کہ چلا آئے گا الحاد بھی ساتھ

"We too are pleased over the progress our youngmen are making but our laughing lips do utter a lament also. We conceived that education would bring in prosperity but we did not visualise that atheism would also be coming alongwith it."⁶⁸

Dr. Robert Briffault in his renowned book *The Making of Humanity* lays down as under:

"If an English baby were put to nurse with a Central African tribe in exchange for a nigger baby, and the latter very carefully brought up in England, the nigger baby, when he grew up, would be a civilized man substantially in possession of the fruits of European evolution, and the English baby would be a savage."

Like geographical surroundings, mind also has its own surroundings and the latter also have their impact on the person carrying that mind.

⁶⁷ *ibid.*, p. 203.

⁶⁸ *Ibid.*, p. 209.

For example, Arabs became masters of Spain and settled down there. The geographical and climatic conditions of Spain are quite different from those of desert regions which is real Arabia. Yet the Arabic odes composed in Spain by Arab poets who had not seen Arabia even once in their life contained almost -the same patterns, themes and especially the beginnings which invariably portrayed the camels, the caravans, far-flung places of encampment, pools surrounded by sand dunes, pastures, pieces of strings, stones blackened by the fire while they served as hearth, etc. Even the Christian's of Spain who wrote poetry in Arabic took to the same path. Through Persian and directly too, Arabic poetry has influenced Urdu to a considerable extent. Just take one example of Mirza Ghalib. (مرزا غالب) He was born in Agra and died in Delhi. He had never seen vast waterless tracts interspersed with huge sand-dunes. He had never lived in wool-tents nor had he loved any woman who belonged to tent-dwelling tribes, encamping in a desert. Yet he says,

کہاں تک رووں اس نجیے کے پیچھے قیامت ہے مری قسمت میں یا رب کیا نہ تھی دیوار پتھر کی

"How long should I weep and bewail behind the tent of my beloved? O God! could there be no stone-wall for me" (so that I could dash my head against it and get rid of the pangs of separation).

Allama Iqbal saw and vividly so, that in his nation there were growing youngmen who biologically belonged to the Pak-India Sub-Continent but mentally and culturally they lived in Europe, in particular, England. They were Anglophile. If they heard or read the word "river," they did not visualise the Indus or the Ganges. They visualised the Thames. The link of such persons with their own culture had thinned down extremely.

Allama Iqbal was admittedly a great supporter of the onward march of human societies to progress, scientific as well as intellectual. He was himself a

'modernist' who could not reconcile himself to numerous fossilized notions, whether they related to religion or society at large. Nevertheless he could not see eye to eye with the secular and materialistic temper of the modern age. He had made his modernism manifest but with a rider;

کھلے ہیں سب کے لیے غریبوں کے میخانے
علم تازہ کی سرمستیاں سناہ نہیں!
اسی سرور میں پوشیدہ موت بھی ہے تری
ترے بدن میں اگر سوز لالہ نہیں

"Western taverns are open for every body. The rapture of modern knowledge is no sin.

Your death also lies hidden in this rapture if your frame has no fire of faith in one God in it.⁶⁹

Being a serious student of Western philosophy Allama Iqbal could very easily understand that the dominant theme of Western civilization was secularism — which had its genesis in Greek Philosophy. The impact of Greek Philosophy on Western societies has been so deep that even the Christianization of the whole Europe could not destroy its secular character. Christianity did produce philosophers like St. Augustine and Thomas Aquinas who utilized philosophy to serve the cause of religion but in the eyes of their successors they were mere theologians.

No doubt the philosophy of a nation governs almost all the departments of its life including religion. Education is no exception. Rather it is the educational system of a nation which generally interprets the mind and goal of the nation concerned.

"A Dialogue in Paradise" (فردوس میں مکالمہ) is a poem which deals with the modern education and its consequent impact on the minds of Muslim youth.

⁶⁹ *Ibid.*, p. 178.

In this poem we find the Sheikh of Shiraz i.e. Sa'di, talking to Maulana Hali. Allama Iqbal chose Sa'di and Hali because each one of them was a reformer of his age, especially in respect of education. We find the former asking the latter:

کچھ کیفیت مسلم ہندی تو بیاں کر
دلمانہ منزل ہے کہ مصروف ننگ و تاز
مذہب کی حرمت بھی ہے کچھ اس کی رگوں میں
تھی جس کی فلک سوز کبھی گرمی آواز

"Please tell me something about the condition of Indian Muslim.

Is he still struggling hard to reach the destination, or has he been left behind like an exhausted way-farer?"

"Is there any measure of religions fervor still left in his veins?"

There was a time when he could melt the firmament with the warmth of his cry."⁷⁰

Hali replied as follows, in a strain of despondency:

جب پیر فلک نے ورق ایام کا الٹا
آیا مگر اس سے عقیدوں میں تزلزل
اٹنی یہ صدا، پاؤ گے تعلیم سے اعزاز!
دنیا تو ملی، طائر دیں کر گیا پرواز
فطرت ہے جوانوں کی زمیں گیرہ زمیں ہز
دیں ہو تو مقاصد بھی پیدا ہو بلندی

"When the ancient firmament (like an old priest with a book) turned over the leaves of days, it was heard, "education would grant you honour".

⁷⁰ *ibid.*, p. 245.

"Of course it has conferred material benefits on the people, it has at the same, dealt a fatal blow to spiritual values."

"With religion hopes soar high, but (now bereft of religion) our young men have become earth-rooted and low-spirited."⁷¹

Hall's statement does not come to an end here. It goes on gaining in pathos. At the end it is really touching. Hali observes:

پانی نہ ملا زمزم ملت سے جو اس کو
یہ ذکر حضور شہ یثرب میں نہ کرنا
پیدا ہیں نئی پود میں الحاد کے انداز
سمجھیں نہ کہیں ہند کے مسلم مجھے غماز

"As the young generation could not be nourished on the perennial, Life-giving founts of Islamic learning, atheistic trends are visible in them."

"I beseech you not to bring it to the notice of the Holy Prophet (may peace be upon him) lest the Indian Muslims take me for a tale-bearer."⁷²

The last couplet in Persian is Sa'di's to whom the answer is addressed.

خرماتواں یافت ازاں خار کہ کشتیم
دیانتواں بافت ازاں پشم کہ ریشتم

"We cannot get palms out of the thorns we have sown. We cannot weave fine silk out of the coarse woollen threads we have spun.

From the perusal of this poem it becomes obvious that Allama Iqbal's foremost concern was to see the youth of Muslim community advancing on

⁷¹ *Ibid.*, p. 245.

⁷² *ibid.*, p. 245.

the pathway to progress remaining at the same time strong believers in Islam. He wished they retained their link with the positive and glorious aspects of their culture. If they lacked belief in Allah then their advancement could do no good to world Muslim Community i.e. the Muslim *Ummah*.

Allama Iqbal has addressed the youth of the *Ummah* several times, directly as well as indirectly. We see that *laved Nama* begins with a prayer to Allah. And that prayer ends thus:

من کہ نومیدم ز پیران کسں دارام از روزے کہ می آید، سخن!
 برجواناں سہل کن حرف مرا بہر شاں پایاب کن ثوف مرا

"I am utterly despaired of the old generation hence I address myself to the day which is yet to dawn. (By that day he means new generations who had yet to appear on the surface of earth.)

"(My Prayer is) that Almighty Allah make my words for younger generation easy to understand. Make my deep sea fordable for them (i.e. meanings of my verses become clear to them without much effort).⁷³

And the last poem in *laved Nama* is addressed to Javed Iqbal and through him to the New Generations. This is a long poem containing about one hundred and thirty verses. First of all belief in Allah is stressed. None else is worthy of worship. One who believes in the One and shuns all other gods and Idols can become capable of conquering the Elements and hence can rise to celestial heights. Translation of some verses from this poem being given below. The who has the whole *laved Noma* translator is Sufi A. Q. Niaz into English.

⁷³ *Kulliyat-e-Iqbal*, (Persian), Lahore, 1985, p. 599.

"Dost thou say 'Laa Ilaah? Then say it with all thy soul, That from thy body should flow the fragrance of the soul."

"The two brief words are not merely an expression; For Laa Ilaah is nothing but a powerful sword."

"To be a true Believer, but to put on the girdle of service before others:

To be called a Believer, but to behave as a traitor to be destitute, beggarly or guilty of hypocrisy—"

"To betray the interests of the Precious Faith for a paltry copper coin,

Is to burn to an ash all the wealth in one's home, and to burn one's own self along with everything else!" -

"And when the soul had flown out of his Prayer and Fasting,

The individual became rough, and disagreeable; and the leadership and discipline of the nation fell into disorder."

"That those who have the Qur'an for guide should have no urge for asking, no taste for a yearning, for the fulfilment of a Desire.

It is strange and very unfortunate — it is very strange indeed."

"If Allah be pleased to make thee a Man of Vision Give careful thought to the times that are coming."

"Reason grown impertinent; no warmth, no fire in the hearts

No sense of modesty in the eyes; drowned in a sense of worldliness —
superficial, profane."

"Knowledge and the Arts, Religion and Politics Reason and the human
heart

All in pairs intent on devoting themselves entirely to acquirement of only
the material means."

"To the spirit of my own times I have addressed a few 'words

And in this I have reduced the vastness of the seas to the capacity of a
couple of jugs."

"The younger generations are intensely thirsty but their cups are empty;

Civilized in gait dark of soul, but they have illumined
brains."

"They are short sighted, convictionless, in dark despair,

In the whole world their eyes fail to see anything worth while."

"Unless knowledge received a fire and a burning from life. The heart can
derive no joy from experience."

"Well thou mayest study a hundred books with the experts;

But the best lesson for thee is the one thine own eyes
would teach."

"In the eyes of the Mullah the denier of God is a Kafir; But in my eyes the
real Kafir is one who denies himself."

"Take firm hold of a perfect sincerity in thy ways;
And wash thyself clean of the fear of Rulers and Rich."

"Both in moments of anger, and of pleasure, Take care never to fall short
of justice."

"For a proper protection of Soul is needed *Zikr* and *Fikr* without measure
For a protection of the Body the needed thing is self control and
discipline in youth."

"Authority and the right to rule over others, both in the higher and the
lower worlds,

Never comes to hand except after a proper protection of the Body and
Soul has been fully achieved."

"The sustenance of the raven and the vulture lies in the carcasses
consigned to the dust;

But the sustenance of food of the eagle lies in the Sun and the Moon."

"The secret of Religion is truthfulness in speech; and that thou partake of
nothing except what is lawful, duly earned,

And both in private and in public to concentrate one's gaze on the Eternal
Excellence."

"The worth of a flower lies in its colour and fragrance; And where a man is alien to discipline and reverence he has neither colour nor fragrance."

"When I see a youngman with no sense of reverence and discipline,
It pains me to such an extent that the light of day for me turns into the
darkness of night."

"The essence of humanity is respect for man,
And thou shall do well to make careful note of this important point."

"For blessings and boons look only to the Almighty God: never look
Nor these things to any earthly potentate."

"Abundance of wealth deprives the heart of its melting quality;
It takes humility away, and places there an overbearing pride instead."

"If thou fail to find the companionship of some man of real knowledge,
Then take thou from me what I have received from my ancestors."

"As long as the heart continues to burn in the fire of greed and worldly
griefs,

"The soul never feels the urge to dance."

"And remember, O ye of the younger Generation,
that to be overcome by grief is prematurely to grow old."

"Dost thou realise that at the present day it is greed which masquerades as
Faqr:

And as for me I bend my knee to him who has the fullest control over his
baser self!"

"O thou the only comfort of my impatient soul —
Only if thou too, could manage to take a share of this Dance of the Soul!"

"To thee I have revealed the whole *Secret* of the Religion of Mustafa;

And even when I am in my grave I shall be sending up this prayer for
thee."

What we get from this poem is that a human being can rise to the heights of real manhood only if he believes in Allah the One Lord Almighty Who created the whole universe and breathed into man's frame the essence of His attributes. Without sincere belief in Allah man falls to the level of animality. Man must unfold his hidden potentialities by hard work and by putting trust in Allah. He who depends on others and is bereft of self-confidence is worse than one who rejects faith in Allah. To soar high is possible only if the aims and ideals to be achieved are spiritual. If ideals are

based on mundane lust only then the person concerned is a greedy animal who grows in callousness along with his materialistic achievements. West stood for material gains only hence a Muslim had to be careful in following it. A Muslim could get true guidance only from the Qur'an and the teachings of the Holy Prophet. A genuine Man could not be but truthful, sincere, reliable and steadfast in respect of all which is positive.. Such a Man can never play a traitor to his society and nation. He wants to lead a soulful life. His pleasure lies in the dance of his soul, not in the dance of his body. Such a dance of the soul can be performed by those persons only who bestow discipline on their instinctive lusts, ambitions and desires in accordance with the *Shari 'at*. Such a conqueror is a real *Darvish* and *Faqir*. *Darvish* or a *Faqir* is not one who forsakes the world and leads a secluded life at a monastery or in the *hujra* (side room) of a mosque. *A Faqir*, according to Allama Iqbal is a person who works hard, earns with the sweat of his brow, makes sacrifices for others, never stoops to begging, rejects all what is unlawful and prohibited and can never be a slave to his wealth, can never be possessed by his possessions. In him mental and spiritual go together, spiritual having the upper hand. Such a person will be an earnestly free person who would never bow, on account of greed, before any ruler or potentate nor would he be afraid of materially big persons.

Allama Iqbal wanted the younger generation to consist of free persons according to his description of them. *We know laved Nama* was published in 1930. *Bal-i-Jibril* came out in 1935. In *Bal-i-Jibril* too, there is a poem entitled "Javed Ke Nam" consisting of five verses only, but containing the same strain. Here also Javed Iqbal is advised to create his own world for him and should never look up to others for help. The fifth and last verse of the said poem is

خودی نہ تچ، غریبی میں نام پیدا کر
 مرا طریق امیری نہیں فقیری ہے

"My way of life is that of a Darvish and not that of an aristocrat,

Do not give away your self (in exchange for riches) Try to become celebrity while living in poverty."⁷⁴

Allama Iqbal in yet another poem "To Javed" has again stressed the same points. The poem begins with verses as under:

نارت گر دیں ہے یہ زمانہ ہے اس کی نہاد کا فرمانہ
درطار شمشلی سے خوشتر مردان خدا کا آستانہ!

"Contemporary era is out to do away with religion because it is based on atheism and denial of God."

"The threshold of Godly persons is much better than the courts of emperors."⁷⁵

Here Javed has been instructed to stick to his belief in one God and strengthen his self (ego). It has been made clear that the potentialities of human beings are boundless but hard work is the precondition for these possibilities to unfold.

وہ بحر ہے آوی کہ جس کا ہر قطرہ ہے بحر نیکرانہ
دہقان اگر نہ ہو تن آساں ہر دانہ ہے صد ہزار دانہ

"Man is such an ocean that every drop of it is a limitless sea in itself."

⁷⁴ *Kulliyat-e-Iqbal*, (Urdu), Lahore, 1984, p. 439.

⁷⁵ *ibid.*, p.548.

"If the farmer be not given to ease and comfort then one seed of grain is to grow into one hundred thousand seeds."⁷⁶

And then, proceeding further Allama Iqbal brings home to Javed, a point of great import

اللہ کی دین ہے جسے دے	میراث نہیں	بلندی	نامی
اپنے نور نظر سے کیا خوب	فرماتے ہیں	حضرت	نظامیؒ
جائے کم بزرگ بایت بود	من	ندارت	سودا!

"It is the Grace of God and He bestows it on whom He desires. Fame is not something given in heritage."

"What a fine thing it was that Nizami (renowned poet of Persian language) made manifest to his beloved son."

"Where you wish greatness be yours, there the fact of being my son is not going to pay you any dividends." (You will not become famous only because you are my son)⁷⁷

And then Allama Iqbal again comes to *Faqr* (to lead a Darvish-like life) and explains its meanings for Javed;

ہمت ہو اگر تو ڈھونڈ وہ فقر	جس فقر کی اصل ہے مجازی
اس فقر سے آدمی میں پیدا	اللہ کی شان بے نیازی
یہ فقر غیور جس نے پایا	بے تیغ و سناں ہے مرد غازی
مومن کی اسی میں ہے امیری	اللہ سے مانگ یہ فقیری!

⁷⁶ *Ibid.*, p.549.

⁷⁷ *ibid.*, p. 550.

"If you can forbear then search for the *Faqr* which originated in Hijaz."

"That *Faqr* creates in man the Godly virtue of being free

from all wants."

"Whosoever is in possession of this self-honouring *Faqr* is a Ghazi without a sword and a spear."

"In it lies the real wealth of the faithful. Beseech the Lord to grant you this *Faqr*."⁷⁸

Hope had not to come from outside, it had to surge out from within. A state of constant challenge adds to the power of determination and strengthens resolution. Allama Iqbal generalised the meanings of tension and eulogised all kinds of challenges focussed^{on} self-conscious and resolute persons. He relates the story of a youth from Merv () who had come to Sayyed Al_i Hujwairi (Data Ganjibakhsh) and complained of high-handedness of his enemies. In Sheikh Hujwairi's reply lies the point Allama Iqbal wished to make;

هستی او رونق بازار تست	راست می گویم عدویم یار تست
فضل حق داند اگر دشمن قوی است	هر که دانائے مقامات خودی است
قطع منزل امتحان تیغ عزم	سنگ ره گرد و فساں تیغ عزم
توچه پنداری فراق جان و تن	چیسست مردن از خودی غافل شدن

"I tell you the truth, your enemy too is your friend. His existence adds to your glory."

⁷⁸ *ibid.*, p.550.

"Whosoever knows the stations of the self considers a powerful enemy to be a blessing from Allah."

"The sword of resolution is whetted by the stones that block the path.

Traversing stage after stage is the test of the sword of resolution."

"What is death? — it is to be oblivious to the self. Do you imagine it is parting of soul and body?"⁷⁹

Through this story the message is broadcast to all youngmen who are alive in the real sense of the word. This significance of tension created by various challenges of life is explained by Allama Iqbal while writing to Professor R. A. Nicholson on the meaning of the self and his philosophy aimed at it:

"In man the centre of life becomes an Ego or Person. Personality is a state of tension and can continue only if that state is maintained. If the state of tension is not maintained relaxation will ensure. Since personality or the state of tension, is the most valuable achievement of man, he should see that he does not revert to a state of relaxation. That which tends to maintain the state of tension tends to make us immortal. Thus the idea of personality gives us a standard of value: it settles the problem of good and evil. That which fortifies personality is good, that which weakens is bad."

This being his creed about good and evil, made him naturally feel disgusted, rather distressed if he found a youth given to comfort and easy living which inevitably had to result in weakening the ego and then personality.

⁷⁹ *Kulliyat-e-Iqbal*, (Persian), Lahore, 1985, p. 53.

ترے صوفے ہیں افرنگی، ترے قالین ہیں ایرانی
لہو مجھ کو رلاتی ہے جوانوں کی تن آسانی!

"Your sofas come from Europe and your rugs are Persian.

I shed tears of blood when I find youngmen ease-loving."⁸⁰

Allama Iqbal wanted youngmen to be efficient, up and doing, tough and resolute. He was despaired of the old generation as has been mentioned in the beginning of this article. He impinged his hopes on the young generation who could be made to unlearn as well as learn afresh. And this is why he prayed to God Almighty with utmost sincerity and tenderness of feeling in a couplet.

جوانوں کو مری آہ سحر دے
پھر ان شاہین بچوں کو بال و پر دے
خدایا آرزو مری یہی ہے
مرا نور بصیرت عام کر دے!

"Grant the youth my plaints of early morn. Furnish again these eaglets with strong wings. My only prayer to you, my Lord, is that the Light of my vision be diffused amongst all."⁸¹

In his celebrated poem, "Saqi Nama" (ساقی نامہ) he repeated the same theme

جوانوں کو سوز جگر بخش دے

⁸⁰ *Kulliyat-e-Iqbal*, (Urdu), Lahore, 1984, p. 411.

⁸¹ *ibid.*, p. 378.

مرا عشق، مری نظر بخش دے!

(O God) Bestow on the youth my warmth of feeling. My unbounded love, and my vision.⁸²

And no doubt it were 'the young man of his nation of Islam who proved harbingers as well as the most untiring and determined fighters for the achievement of Pakistan, their cherished homeland. Allama Iqbal who around 1910 had addressed the Muslim youth

کبھی اے نوجوان مسلم! تدر بھی کیا تو نے
وہ کیا گردوں تھا تو جس کا ہے اک ٹونا ہوا تارا!

Muslim youngman have you ever pondered over the fact that you are a fallen star of a magnificent firmamentt."⁸³

Was in October 1937 issuing a message to a gathering of the Muslim Students Federation held at Calcutta in which these words stand out

'I hope the young generation is fully aware of. the delicate political situation through which the Indian Muslims are passing. Be not afraid of The opposing forces. Continue your struggle. In struggle lies hidden the secret of life."

The young generation under the august and wise guidance of the Quaid-e-Azam did their job well. The youth belonging to the present generation are also aware of the circumstances in which they have now been placed. They are determined. They know their job. They will do well. Insha Allah.

⁸² *ibid.*, p. 416.

⁸³ *ibid.*, p.180.

The Clock Paradox And Its Space Counterpart In Special Relativity Theory

Aziz Ahmad

Section 1

The contention in this paper is that Special Theory of Relativity gives rise to results which are physically impossible, and therefore, there is a need either for the abandonment of the theory or for its drastic restructuring.

One result concerns the well-known 'clock paradox' which has been under discussion since 1911 onwards and the second result concerns the space counterpart of the clock paradox. This latter result has missed so far the attention of the supporters as well as the critics of the special theory.

THE CLOCK PARADOX

Section 2

Of the two synchronized clocks M and R, if clock M goes to a distant destination at constant, high velocity and later returns to the clock R with the same velocity, will it show the same or less or more elapsed time than clock R? Or, in terms of the twin brothers Paul and Peter, if Peter goes in a rocket on space travels with high, uniform velocity, on his return, will Peter have aged the same or less or more than his earth-bound twin brother Paul?

Three answers have been given to this question:

1. Clock M will show less elapsed time than clock R.

2. The two clocks will show the same time.
3. Clock M will show less elapsed time than clock R and clock R will show less elapsed time than clock M — a result which is physically impossible.

The first result was predicted by Einstein himself in his original paper on special theory of relativity in 1905. He wrote,⁸⁴ "If one of the two synchronous clocks at A is moved in a closed curve with constant velocity until it returns to A, the journey lasting t seconds, then by the clock which has remained at rest, the travelled clock on its arrival at A will be $\frac{1}{2} t V^2 / C^2$ second slow".

Six years later he put it in a more graphic form. He said,⁸⁵ "If we placed a living organism in a box — one could arrange that the organism after an arbitrarily lengthy flight could be returned to its original spot in a scarcely altered condition while corresponding organisms which had remained in their original position had long since given way to new generations. In the moving organism the lengthy time of the journey was a mere instant, provided the motion took place with approximately the speed of light".

The first result is today upheld by almost all the conventional supporters of the theory.

This result is, however, in conflict with the time aspect of the Holy Prophet's (may peace be upon him). In less time passed on earth, whereas the Holy Prophet met events and gained experiences which could be spread over a considerable stretch of time. But in the case of Peter, the astronaut who goes on space-travel, more time will pass on earth and less for the astronaut. Although the two episodes, viz., the astronaut's space travel and the Holy Prophet's ascension, are not strictly on the same plane and as such do not require analogous considerations, yet this contention of the supporters of the special theory, in the name of science, can have highly misleading

⁸⁴ Electrodynamics by A. Einstein, page 49 of the Principle of Relativity, Dover Publications.

⁸⁵ Quoted from 'What is Time?' by G. J. Whitrow, Thames and Hudson, London, page 112.

consequences for young Muslim science students, if they chance to imagine together and compare and contrast the time aspects of the two episodes. Hence the need for a strict examination and a close look at this aspect of the theory.

The second answer is by Prof. H. Dingle, former President of the Royal Astronomical Society and a few others.

The third result was first deduced by P. Langevin⁸⁶ in 1911 who substituted twin brothers for the two synchronised clocks. Ever since then, the problem has been termed the 'clock paradox' or the 'twin-paradox' in relativity literature.

The paradox has two aspects, one based on a certain misconception and, therefore, trivial and unimportant, the other serious and fatally damaging to the theory.

The paper argues on the basis of a few well-known results of the special theory of relativity. These results are as below:

Of the two systems K and K' in uniform relative motion, observers in each consider their own system to be at rest and the other in motion with the same velocity.

When either of the system K and K' is considered to be in motion,

- i. lengths in it, in the line of motion, are judged from the other system to be contracted by the factor

$$\sqrt{1 - \frac{C^2}{V^2}} \text{ which in our example below is } 3/5,$$

- ii. clocks in it are judged from the other system to run

⁸⁶ Quoted from 'The Logic of Special Relativity' by J. Prokhovnik, page 17.

slow by the factor $\sqrt{1 - \frac{C^2}{V^2}}$ (or 3/5 of our example.)

iii. clocks at different places in it are judged from the other system to be out of synchronism by the factor

$\frac{V}{C^2} \cdot X$ or $\frac{V}{C^2} \cdot X$ as the case may be, clocks ahead of the origin being

behind in time and those behind the origin being ahead in time by the same factor.

iv. two events at a distance, which are simultaneous in it, are judged from the other system, not to be simultaneous.

Section 3

The Unimportant Aspect

This arises as under:

The twin brother Peter with his clock M makes a journey to a distant star at constant high velocity V. If the time taken for the journey is t years as measured on the clock R of the earth-bound twin brother Paul, according to Einstein's prediction and the usual formula for time dilatation, the elapsed

$t\sqrt{1 - \frac{C^2}{V^2}}$ years which is less than t and, thus, he will be found younger than

his stay-at-home twin brother Paul on reunion. This asymmetrical behavior of the clocks or of physiological aging processes (which constitute a clock by their regular, periodic functioning) puzzled some critics, particularly Prof. H. Dingle. He thought that the 'length contraction' and 'time retardation' results of the theory are reciprocal and symmetrical results. If Paul judges that during the period of uniform motion, the clock carried by Peter runs slow by

the factor and his $\sqrt{1 - \frac{C^2}{V^2}}$ meter-stick is shortened by the same factor, Peter

has as good a right to judge, by virtue of the motion being relative, that the

clock of Paul runs slow and his meter-stick is shortened by the same factor. How can, then, only the clock of Peter be retarded or only he can be considered to have aged less number of years? Dingle's position was that the principle of relativity required symmetrical behaviour of clocks and measuring rods and hence, if the principle was true.⁸⁷

"the clocks must be retarded equally or not at all: in either case, their readings will agree on reunion if they agreed on separation".

From 1940 to 1967, Prof. Dingle contributed over two⁸⁸ dozen articles in discussion of the subject in the various international journals and as a result of his long sustained examination of the theory, he came to repudiate it in the end as inconsistent,⁸⁹ though he had started earlier as an admirer and supporter of the theory.

Dingle has been opposed by a large number of the ardent admirers of the theory. They are unanimous that Dingle is wrong, but there is no unanimity among them as to the nature of his error. To uphold the asymmetrical aging or the asymmetrical time on the 1 two clocks, they find out some asymmetry in the situation of the clocks or the twins, but there is no agreement as to what exactly the asymmetry is. Some⁹⁰ consider that the different times on the two clocks are due to the fact that the clock M undergoes accelerations at the start and at the turn round. Others⁹¹ think that it is the acceleration or change of inertial system by clock M at the turn

⁸⁷ The Clock Paradox of Relativity by H. Dingle, *Nature.*, June 1 1957 pages 1242-1 243.

⁸⁸ Listed on pages 187-189 of *Time and the Space Traveller* by L. Marder, University of Pennsylvania Press, 1974.

⁸⁹ The Case against Special Relativity by H. Dingle, *Nature* 216, 119, 1967, quoted from page 188 of *Time and the Space Traveller* by L. Marder, University of Pennsylvania Press, 1974.

⁹⁰ (i) Space Traveller's Youth by H. Bondy, *Discovery*, December 1957, pages 505-510.

(ii) The Resolution of the Clock Paradox by Geoffray Builder, *Philosophy of Science*, April 1959, Pages 135-144.

⁹¹ (i) Experimental Verification of the Clock Paradox of Relativity by Franks S. Crawford Jun., *Nature*, January 1957, pages 35-36:

(ii) Time and Relativity — Part I by O. R. Frisch. *Con-*

temporary Physics. October 1961 pages 16—27.

round alone which produces asymmetrical times. A few⁹² believe that it is the accelerations of the two clocks separately with respect to the rest of the matter in the universe, which are responsible for their asymmetrical behaviour. Others⁹³ satisfy themselves by drawing a Minkowsky space-time diagram.

Such difference of opinion is a symptom that the matter is not being properly understood.

Section 4

The contention in this paper is that the asymmetrical intervals of time are due to the distance of travel which has to be initially fixed in one inertial system in order to set up the problem. To substantiate this contention, it will be helpful to study the matter in the context of a simple numerical example.

Suppose that K and K' are two inertial systems in uniform relative motion along their common X-axis with clocks R and M at their respective origins O and O' which coincide at zero hour. Their relative velocity is 4 legs per second, the velocity of light being 5 legs per second. There is an object D, 600 legs from O in the system K towards the positive side of the X-axis. Clock M is to coincide with the object D and then the relative velocity is to be reversed so that clock M rejoins clock R.

According to the system K, clock M will coincide with D after $(600/4)$ 150 seconds, but due to its motion, it will run slow by the factor $\sqrt{1 - \frac{C^2}{V^2}}$ the example $3/5$, and time on it will be $[150 \times 3/5]$ 90 seconds on coincidence with the object D. It will take another 90 seconds for its return

⁹² (i) The Clock Paradox of Relativity by Frank S. Crawford Jun, Nature, May, 1957 pages 1071-1072.

Special Relativity by A. P. French pages 155-156.

⁹³ On Solutions of the Clock Paradox by G. David Scott, American Journal of Physics, November 1959, Pages 580—584.

journey and when it rejoins clock R, time on it will be $(90 + 90)$ 180 seconds and on the clock R $(150 + 150)$ 300 seconds.

Let us contemplate the situation from the point of view of each system K and K' when their respective clocks R and M show 45 seconds each.

According to the System K

Observers in the system K will consider themselves to be at rest and the system K' to be in motion at 4 legs per second towards the right. According to the accepted results of length contraction and time retardation in the moving system, the picture as viewed from the system K after 45 seconds will be as under: [Fig. 1(a)]

(a) (i) The distance between the two clocks R and M will be (45×4) 180 legs measured in K.

(ii) The same distance will be $(180 \times 5/3)$ 300 legs of K's measure as judged from K (length in K being contracted).

(iii) The clock R will show 45 seconds.

(iv) The clock M will show $(45 \times 3/5)$ 27 seconds (time in K' being retarded.)

(v) The clocks in the system K' will be out of synchronism by the factor $\frac{V}{C^2} \cdot X$ as judged from the system K (relativity of synchronism). The clocks in front of the origin O' being behind in time by the factor $(\frac{V}{C^2} \cdot X)$ and those in the back of the origin O' being ahead in time by the same factor.

(vi) The clock of the system K' at the location of clock R will, therefore, show $(300 \times \frac{4}{5} + 27)$ 75 seconds.

According to the System K'

Observers in the system K' will consider themselves to be at rest and the system K to be in motion at 4 legs per second towards the left. The picture as viewed from the system K' after 45 seconds will be as under: [Fig. 1(b)] .

- (b) (i) The distance between the two clocks M and R will be $(45 \times 4) 180$ legs measured in K' .
- (ii) The same distance will be $(180 \times 5/3) 300$ legs of K' 's measure as judged from the system K' (length now in the system K being contracted).
- (iii) The clock M will show 45 seconds.
- (iv) The clock R will show $(45 \times 3/5) 27$ seconds (time in K being retarded).
- (v) The clocks in the system K will be out of synchronism by the factor $(\frac{V}{C^2} \cdot X)$ as judged from K' (relativity of synchronism). The clocks in front of the origin O being behind in time by the factor $\frac{V}{C^2} \cdot X$ and those in the back of the origin O being ahead in time by the same factor.
- (vi) The clock of the system K at the location of clock M will, therefore, show $(300 \times \frac{4}{5} + 27) 75$ seconds.

The two pictures are exactly symmetrical as regards the times and the distances covered.

After 45 seconds as judged from K :

$$K \quad R \quad \frac{O}{45 \text{ Second}} \quad \frac{180 \text{ legs.}}{45 \text{ sec.}} \quad \frac{D}{600 \text{ legs.}}$$

K

75sec.

27sec.

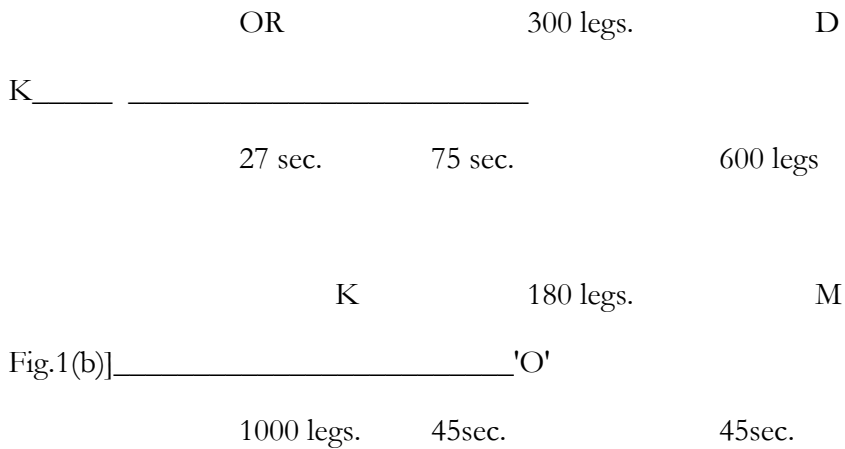
[Fig.1(a)] _____ 'O'

1000 legs.

75sec.

M.

After 45 seconds as judged from K' :



This symmetry will prevail till the clocks R and M show 90 seconds each. The two pictures will, then, be as under: Fig. 2(c)]

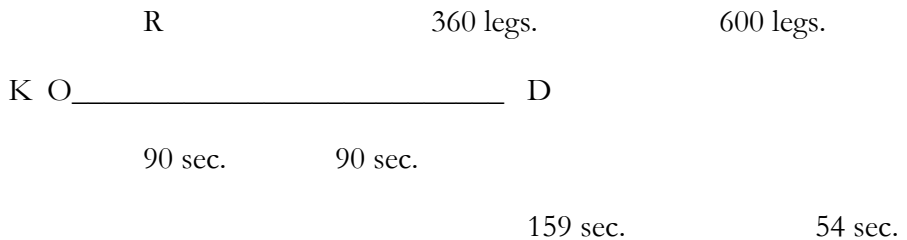
According to the System K

- (c) (i) The distance between the two clocks R and M will be (90×4) 360 legs measured in K.
- (ii) The same distance will be $(360 \times 5/3)$ 600 legs of K's measure as judged from K (length in K' being contracted).
- (iii) The clock R will show 90 seconds.
- (iv) The clock M will show $(90 \times 3/5)$ 54 seconds (time in K' being retarded).
- (v) The clocks in the system K' will be out of synchronism by the factor $(\frac{V}{C^2} \cdot X)$ as judged from K (relativity of synchronism).
- (vi) The clock of the system K' at the location of clock R will, therefore, show $(600 \times 4/25 + 54)$ 150 seconds.

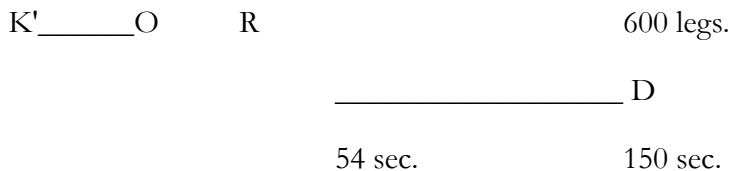
According to the System K'

[Fig. 2(d)]

- (d) (i) The distance between the two clocks M and R will be (90×4) 360 legs measured in K'.
- (ii) The same distance will be $(360 \times 5/3)$ 600 legs of K's measure as judged from K' (length in K being contracted).
- (iii) The clock M will show 90 seconds.
- (iv) The clock R will show $(90 \times 3/5)$ 54 seconds (time in K being retarded)
- (v) The clocks in the system K will be out of synchronism by the factor $(\frac{v}{c^2} \cdot X)$ as judged from K' (relativity of synchronism).
- (vi) The clock of the system K at the location of clock M, that is the clock at D will, therefore, show $(600 \times 4/25 + 54)$ 150 seconds.
After 90 seconds as judged from K:



After 90 seconds as judged from K'



90 sec.

90 sec.

[Fig. 2(d)] K' _____ O'

1000 legs.

360 legs.

M

From now on the symmetry will no longer prevail. The distance of 600 legs of the system K between O and D will stand covered (d-ii above). The event of coincidence of the clock M and the destination D will have occurred according to the system K', but it will not have occurred yet according to the system K. According to this latter system, the event of coincidence of the clock M and the destination D will occur when the clock R records 150 seconds. The picture according to this latter system K will be as under: [Fig. 3(e)]

According to the System K

- (e) (i) The distance between the clocks R and M will be (150 x 4) 600 legs measured in K.
- (ii) The same distance will be (600 x 5/3) 1000 legs of K',s measure as judged from K (length in K' being contracted.)
- (iii) The clock R will show 150 seconds.
- (iv) The clock M will show (150 x 3/5) 90 seconds (time, in K' being retarded.)
- (v) The clocks in the system K' will be out of synchronism by the factor ($\frac{V}{C^2} \cdot X$) as judged from the system K (relativity of synchronism).
- (vi) The clock of the system K' at the location of clock R, that is, at 1000 legs towards the left of the system K' will, therefore, show (1000 x 4/25 + 90) 250 seconds.

The time value of 90 seconds on the clock M as judged from the system K in (e)-iv above is not the same quantity as that of 90 seconds on the clock

M in (d)-iii above. Here as judged from the system K, the distance associated with 90 seconds in (e)-iv is 1000 legs of K',s measure as judged from K, vide (e)-ii above, but there, the distance associated with 90 seconds in (d)-iii above is 360 legs of K',s measure as judged from K', vide (d)-i above.

After 150 seconds as judged from K:

$$K \quad O \xrightarrow[150\text{sec.}]{R} \xrightarrow[150\text{sec.}]{600\text{legs.}} D$$

$$[\text{Fig. 3(e)}] \quad K' \text{-----} O \xrightarrow[1000\text{legs.}]{250\text{sec.}} \xrightarrow[M]{90\text{sec.}} O$$

After 90 seconds as judged from K':

$$O \xrightarrow[54\text{sec.}]{R} \xrightarrow[150\text{sec.}]{600\text{legs.}} D \text{-----} K$$

$$[\text{Fig. 3(d)}] \quad O \xrightarrow[1000\text{legs.}]{90\text{sec.}} \xrightarrow[360\text{legs.}]{90\text{sec.}} M \quad O'$$

Section 5

It is obvious from the above that the initial fixation of the distance O D in the system K prevents the emergence of exactly symmetrical time values. This fixed distance is a physical restriction in the problem of which account must be taken and to which the length contraction and time retardation results of the theory must conform. We cannot, therefore, get the second result as demanded by Dingle. He was in error to demand exactly symmetrical time values. *But those who blamed the asymmetry on accelerations or change of inertial system, etc., were also in error.* It seems Dingle understated his case. Instead of exact symmetry, he should have demanded reciprocity which can be conceded as will appear in the sequel., With this, we get leave of Dingle and the unimportant aspect of the paradox. There will be no paradox in different times if it were true that the theory predicted only one-

sided time retardation. The claim in this paper is that the theory predicts two-sided, reciprocal time retardation as in the third result mentioned in Section 2.

THE SERIOUS ASPECT OF THE CLOCK PARADOX

Section 6

It has been stated earlier that according to the system K, clock M will be in uniform motion at 4 legs per second towards the object D, fixed 600 legs away from O in the inertial system K and that it will take $(600/4)$ 150 seconds of the system K to reach the destination D. But due to its motion, it will be judged to run slow by the factor $\sqrt{1-v^2/c^2}$ in our example $3/5$, and time on it will be $(150 \times 3/5)$ 90 seconds when it coincides with D. But the system K' can be considered to be at rest and the system K to be in uniform motion at 4 legs per second towards the negative side of the X-axis. Accordingly, the distance of 600 legs between O and D in the system K will be shortened by the factor $\sqrt{1-v^2/c^2}$ and will be $(600 \times 3/5)$ 360 legs measured in K'. This distance will be covered in $(360/4)$ 90 seconds of the clock M. But now the clock R will appear working slow by the factor $\sqrt{1-v^2/c^2}$ and when clock M coincides with the object D, time on clock R will be $(90 \times 3/5)$ 54 seconds. This is in conflict with the previous result of 150 seconds on the clock R. Therefore, when clocks M and R reunite, the clock R will be both ahead in time of the clock M and behind in time of the same clock. In terms of the twins, Paul and Paul. on reunion, Peter will be both younger than Paul and older than This is physically impossible.

Section 7

There are four time values here for the interval between the events of separation and reunion of the clocks M and R.

As judged from the system K.

1. 300 seconds on the clock R.
 2. 180 seconds on the clock M.
- As judged from the system K'.

3. 180 seconds on the clock M.
4. 108 seconds on the clock R.

The upholders of the theory consider that the values in 2 and 3 above are the same quantity. They also tend to ignore the value of 108 seconds in 4 and assimilating 2 and 3, accept the values 300 seconds on clock R and 180 seconds on clock M and then believe that there is no paradox. But, as indicated at the end of section 4 above, the time value of 180 seconds in 2 arises from association with 600 legs (unshortened) of the System K and 1000 legs (shortened) of the system K', whereas the value of 180 seconds in 3 arises from association with 360 legs (unshortened) of the system K' and 600 legs (shortened) of the system K. As such the two values are not one and the same quantity. Though hundreds of papers have been published to date in efforts to justify one-sided time retardation, quite a number of these betray no awareness of the real nature of the paradox. They even do not concern

with the derivation of the time value in 4 above, such as 108 seconds on the clock R. The authors of some of these papers employ an ingenious method, such as that involving doppler⁹⁴ shifts or exchange of light⁹⁵ signals or K⁹⁶ calculus, etc., to arrive at the values 300 seconds on the clock R and 180 seconds on the clock M and, perhaps, getting impressed with the novelty, originality and ingenuity of their method, they are misled into believing that by their unusual derivation of these values they have solved the paradox. These values are very easily deriveable by the simple operation of the length contraction and time retardation factor $\sqrt{1-v^2/c^2}$ and as pointed out earlier, there would be no contradiction in 300 seconds on the clock R and 180 seconds on the clock M, provided that these alone were predicted by the theory. The crucial fact is that the value 108 seconds on the clock R in the system K is also predicted by the theory with the same validity with which the 'length contraction' and time retardation' results in this system are predictable. The important question which has got to be faced squarely by the admirers of the theory is why the result of 108 seconds on the clock R is to be ignored.

Section 8

The correct answer to this question is that the time values of 300 seconds and 108 seconds on clock R at one and the same time are physically impossible. Suppose for a moment that a far off region, in our universe has been discovered in which one person is actually, both younger and older than another person or in which one person is two persons at one and the same time so that he or she can be both younger and older than another, what a delight it would be to proclaim that the special theory of relativity already

⁹⁴ Time and Relativity, Part I by O. R. Frisch. Contemporary Physics, October, 1961, pages 16—27.

⁹⁵ The Clock Paradox in Relativity by C. G. Darwin, Nature, November 1 1957, pages 976-977.

⁹⁶ Space Travellers Youth by H. Bondi Discovery, December 1 1957, pages 505—510.

predicted such a phenomena. Apart from this physical impossibility, no genuinely satisfactory reason has been produced to ignore this time value.

Section 9

The real question is whether or not the third result mentioned in section 2 above is a valid deduction or in terms of our numerical example, whether or not the time value of 108 seconds on the clock R is a valid result from the theory. If this value is a valid result, efforts to refute it are efforts, in effect, to refute the theory. If it is not a valid deduction from the theory, all that you require is to pin-point the logico-mathematical error which is being committed in deducing it. No such error has been discovered, even though the matter has been under debate now for almost three quarters of a century. If no such error has been spot-lighted so far, it is reasonable to assume that there is no such error. It is no error to judge from the system K, the length to be contracted and the time to be retarded in the system K' and there is no error to judge from the system K', the length to be contracted and the time to be retarded in the system K, while the two systems are in uniform relative motion. This is accepted by all and sundry. But the value of 108 seconds on the clock R arises from the operation of these two standard results and hence it is a valid and unavoidable consequence of the theory.

Section 10

It is remarkable that the conventional adherers⁹⁷ of the theory allow the length of 600 legs between O and D in the system K to be contracted when judged from the system K' to $(600 \times 3/5)$ 360 legs: of the system K', so that $(360/4) + (360/4)$ 180 seconds should elapse on the clock M for the object D to approach it and to return to its original position. Also, when the experimental result of the flight of p-mesons from a height of about 10 kilometres above sea level is being explained, the admirers⁹⁸ of the theory feel

⁹⁷ (i) Relativity (ii) Relativity and Space Travel by J. R. Pierce, Proceeding of the IRE, June 1959, pages 1053-1061.

and Space Travel by J. H. Fremlin, Nature 180, 499, 1957.

⁹⁸ (i) Elementary Modern Physics by Richard T. Weidner and Robert L. Sells, pages 409-411, Allyn and Bacon In. Boston.

no inhibition against asserting that from the point of view of an hypothetical observer travelling with the μ -mesons, the earth will appear to be approaching and the distance between the p-mesons and the earth will be contracted by the factor $\sqrt{1-v^2/c^2}$ and will, thus, be traversable in the short, half-life time of the p-mesons. These admirers of the theory, thus, see no reason, not to judge from the system K' , the length of 600 legs in the system K between O and D to be contracted, but they stop short of taking the further step of judging the clock R in the same system to be retarded.

Section 11

The clock problem involves four distinct steps.

- (i) Time on clock R in the system K will be (600/4) 150 seconds when clock M reaches the destination D.
- (ii) Clock M will be judged from the system K to work slow by the factor, $\sqrt{1-v^2/c^2}$ and the time on it will be (150 x 3/5) 90 seconds when it reaches D.
- (iii) System K' can be judged to be at rest and the system K to be in motion towards the opposite direction. The distance of 600 legs in the system K will, therefore, be contracted to (600 x 3/5) 360 legs of the system K' . Clock M will, therefore, take (360/4) 90 seconds to bridge this distance.
- (iv) Clock R will now be judged from the system K' to work slow by the factor $\sqrt{1-v^2/c^2}$ and time on it will be (90 x 3/5) 54 seconds when it coincides with leg 360 of the system K' on the left.

While predicting the first result in 1905 in his original paper, Einstein confined his thought to the first two steps only. His followers have since made some progress. It is apparent from the above section that they can now take the third step also without inhibition when it suits their purpose and when they try to explain the flight of mesons or when they desire to get the result of 90 seconds on the clock M. They are, however, averse to the fourth step. This is because, if they take this further step, they are face to face with

(ii) Time and the Space Traveller by L. Marder, page 63, University of Pennsylvania Press, 1974.

the paradox which is destructive to the theory. They, therefore, have to employ all sorts of manoeuvres to evade this unpleasant step. Many of them even fail to draw a line of distinction between the trivial and the serious aspects of the paradox and treat the problem as if it involved only the question of justification of the time 300 seconds on the clock R and 180 seconds on the clock M. Some⁹⁹ of the others who are aware of the serious nature of the paradox plead that the standard of simultaneity in the original system K should be accepted and the time value of 108 seconds on the clock R should, thus, be avoided. A few¹⁰⁰ believe that the concept that 'all motion is relative' is not true. Some¹⁰¹ consider (including Einstein in 1918) that the matter requires to be dealt with under general theory as accelerations are involved. Others¹⁰² believe that the general theory adds nothing of significance to the problem and succeeds only in evading the paradox rather than solving it. Such ad hoc and arbitrary reasons are satisfactory to their authors alone, otherwise, why should the discussion of the paradox be an ongoing process. As late as June, 1981, one finds Prof. W. G. Unruh¹⁰³ producing in the American Journal of Physics an extremely far-fetched solution of the paradox based on the aberration formula of the special theory.

Section 1 2

⁹⁹ (i) The Clock Paradox and Space Travel by Edwin M. McMillan, Science, August 1957, pages 381—384.

(ii) Space-time Physics by Edwin F. Taylor and John Archibald Wheeler, pages 95-96.

¹⁰⁰ (i) Relativistic Observations and the Clock Problem, by J. Terrell, Nuovo Cimento, May 1960, pages 457—468.

The Theory of Space, Time and Gravitation by V. Fock, page 62.

¹⁰¹ (i) Die Naturwiss 6, 697, 1918 by A. Einstein.

(ii) Relativity, Thermodynamics and Cosmology by R. C. Tolman, Oxford University Press, 1934.

¹⁰² (i) The Resolution of the Clock Paradox by Geoffray Builder, Philosophy of Science, April 1959, pages 135—144.

On Solutions of the Clock Paradox by G. David Scott, American Journal of Physics, November 1959, pages 580—584.

¹⁰³ Parallax, distance, time and the twin "paradox" by W. G. Unruh American Journal of Physics, June 1981, pages 589—592.

It has been remarked earlier that if Prof. Dingle had demanded the reciprocal results of time dilatation rather than exactly symmetrical time values, he would have been on the right track. A cursory look at the time and distance values mentioned in (d) and (e) of Section 4 above, will establish that these values are reciprocal as demanded by the basic principles of the theory. [Fig. 4(d) and (e)] . The reciprocal of 1000 legs of K in (e)-ii, contracted to 600 legs of K in (e)-i are 600 legs of K in (d)-ii contracted 360 legs of K' in (d)-i.

The reciprocal of 150 seconds on the clock R in (e)-iii retarded to 90 seconds on the clock M in (e)-iv, are 90 seconds on the clock M in (d)-iii retarded to 54 seconds on the dock R in (d)-iv. The reciprocal of 250 seconds in (e)-vi on the clock opposite Rat leg 1000 towards the left in the system K, which is out of synchronism from 90 seconds on the clock M in (e)-iv by $(1000 \times 4/25)$ 160 seconds, are 150 seconds in (d)-vi on the clock opposite clock M at 600 legs to-wards the right in the system K, that is on the clock at D, which is out of synchronism from 54 seconds on the clock R in (d)-iv by $(600 \times 4/25)$ 96 seconds. Reciprocity, therefore, prevails, exactly symmetrical values not obtaining for the simple reason that the initial distance of travel of 600 legs in the system K has been fixed unilaterally.

As judged from K after 150 seconds:

$$K \quad O \quad \frac{R}{150\text{sec}} \quad \frac{600 \text{ legs.}}{150 \text{ sec.}} \quad D$$

$$[\text{Fig. 4(d)}] \quad \frac{K' \ 1000 \text{ legs}}{250\text{sec}} \quad \frac{M.}{90 \text{ sec.}} \quad O'$$

As judged from K' after 90 seconds:

$$O \quad \frac{R}{54\text{sec}} \quad \frac{150 \text{ sec.}}{600 \text{ legs.}} \quad D \quad \text{---} \quad K$$

$$[\text{Fig. 4(d)}] \frac{\frac{360 \text{ legs}}{90 \text{ sec}}}{1000 \text{ legs}} \frac{M}{90 \text{ sec.}} O' K$$

Reciprocals as judged from K in [Fig. 4(e)]	Conversion factor	Reciprocals as judged from K' in [Fig. 4(d)]
1. 1000 legs of K' in (1) contracted to 600 legs of K in (4).	3/5	600 legs of K in (1) contracted to 360 legs of K' in (4).
2. 150 seconds on R in (2) retarded to 90 seconds on M in (5).	3/5	90 seconds on M in (2) retarded to 54 seconds on R in (5).
3. 250 seconds at leg 1000 of K' in (3) retarded to 150 seconds at leg 600 of K in (6).	3/5	150 seconds at leg 600 of K in (3) retarded to 90 seconds at leg 360 of K' in (6).

Section 13

The two values of 300 seconds and 108 seconds at one and the same time on the clock R at the end of the journey as judged from the two systems K and K', respectively, are, accordingly, in line with what the theory demands. It is, therefore, the third result mentioned in section 2 above, viz, clock M will be both behind in time and ahead in time of the clock R, to which the theory gives rise and which displays reciprocity as demanded by the basic principles of the theory. The first result, mentioned in Section 2, involving only the first two of the four steps mentioned in Section 11 above, will be only a half-way house between what the theory demands and what its

conventional admirers are willing to concede to it. Little do they realize that by upholding the first result only, they are truncating the logical corpus of the theory. Result one depicts the picture only from the point of view of observers in the system K and totally neglects the second picture depicting the point of view of observers in the system K'

The first result of one-sided time retardation is, therefore, only a partial and incomplete deduction from the concept of relativity of motion, taken together with the concepts of length contraction and time retardation, the full and complete deduction from these concepts being that of two-sided, reciprocal time retardation embodied in the third answer mentioned in Section 2 above.

THE SPACE COUNTERPART OF THE CLOCK PARADOX

Section 14

Even if we agree with the upholders of the theory and accept the values 300 seconds on the clock R and 180 seconds on the clock M, we land into the space counterpart of the clock paradox. Very strangely, this aspect of the problem has persistently been overlooked so far.

This paradox arises as follows:

According to the system K, the system K' will be moving towards the right at 4 legs per second. So a distance of $(150 \times 4) 600$ legs of K's measure of the system K' will pass in front of R. As the length in the system K' will be contracted, there will be $(600 \times 5/3) 1000$ legs of the system K' in this distance. If there should be a target shooting device at the location of clock R and one target at each leg of the system K' on the negative side of the X-axis, one thousand targets will be shot down at the location of clock R.

According to the system K' , the system K will be moving towards the left at 4 legs per second. Therefore, the clock R will pass in front of (90×4) 360 legs of the system K' and only 360 tar-gets will be shot down at the location of clock R .

According to the system K :

$$K \quad \frac{R \quad 600 \text{ legs.}}{150 \text{ sec} \quad 150 \text{ sec.}} \quad D$$

$$[\text{Fig. 5(e)}] \quad \frac{K' \quad 1000 \text{ legs}}{250 \text{ sec}} \quad \frac{M.}{90 \text{ sec.}}$$

According to the system K :

$$[\text{Fig. 5(d)}] \quad \frac{360 \text{ legs}}{1000 \text{ legs}} \quad \frac{M}{90 \text{ sec}} \quad \frac{O' K}{90 \text{ sec.}}$$

On reunion the targets 361 to 1000 (or targets 601 to 1000) will be found to have been shot down and not to have shot down at the location of clock R .

This again is physically impossible.

Thus by whatever method we try to extricate ourselves from the clock paradox and accept the values 150-seconds on the clock R and 90 seconds on the clock M for the one way travel, *we land into its space counterpart.*

Section 15

Einstein hazarded his special theory on the requirement that mankind abandon the concept of simultaneity as an absolute concept and accept it as a relative one. Thus two¹⁰⁴ events at a distance in one inertial system which are simultaneous in that system, will not be simultaneous in another inertial system. Now, suppose we ask the question, "where is clock R in the system K' when clock M *and the* destination D coincide and what is the time on it?" There will be two answers to this question, depending upon the standard of simultaneity in each system. According to the system K, when M coincides with the destination D, clock R is opposite leg 1000 in the system K' towards the left and time on it is 150 seconds. Time on the clock opposite clock R at 1000 legs in the system K' will be 250 seconds, but this clock will have been set $(1000 \times 4/25)$ 160 seconds ahead of the clock M and thus correct time on this clock should also be $(250 - 160)$ 90 seconds as on the clock M. According to the system K', when clock M and the destination D coincide, clock R is opposite leg 360 in the system K' towards the left and time on it is 54 seconds. Time on the clock opposite clock M in the system K, that is on the clock at the destination D, will be 150 seconds, but this clock will have been set $(600 \times 4/25)$ 96 seconds ahead of the clock R and, thus, correct time on this clock should also be $(150 - 96)$ 54 seconds as on the clock R. There is nothing in the corpus of the special theory to remove these differences of judgement of the observers in the system K and K'

Section 16

Rather, the basic principles of the theory confirm these differences. The fundamental requirement which the Lorentz transformation is meant to fulfil is to answer the question, 'What are the coordinates of the event of

¹⁰⁴ Electrodynamics by A. Einstein, The Principle of Relativity, Dover Publications Inc. page 42.

coincidence of clock M with the destination D in the system K' if these coordinates in the system K are already known?' Clock M is in the system K' and the destination D is fixed in the inertial system K. As two systems are involved in the problem, there must of necessity by two pictures of the manner in which this event ingresses into each system. In the system K, it is simultaneously associated with the event of coincidence of clock R with leg 1000 of the system K' on the left when clock R shows 150 seconds and the clock at leg 1000 in the system K' shows 250 seconds. In the system K', it is simultaneously associated with the event of coincidence of clock R with the leg 360 of the system K on the left when clock R shows 54 seconds and the clock at leg 360 of the system K

shows 90 seconds. The two pictures [Fig. 6(e) and (d)] are reciprocal as demanded by the basic principles of the, theory, the second picture arising from the first by the operation of the length contraction and time retardation factor $\sqrt{1-v^2/c^2}$ 3/5 in our example. In the first picture, [Fig. 6(e)] there are two distances, 600 legs of K and 1000 legs of K'. They give rise to $(600 \times 3/5)$ 360 legs of K' and $(1000 \times 3/5)$ 600 legs of K in the second picture. In the first picture there are four time values, 150 seconds and 150 seconds of K and 90 seconds and 250 seconds of K'. These give rise to $(150 \times 3/5)$ 90 seconds and $(150 \times 3/5)$ 90 seconds of K' and $(90 \times 3/5)$ 54 seconds and $(250 \times 3/5)$ 150 seconds of K in the second picture, [Fig. 6(d)]

As judged from K:

$$K \quad \frac{R \quad 600 \text{ legs.}}{150 \text{ sec}} \quad D$$

$$[\text{Fig. 6(e)}] \quad \frac{K' \quad 1000 \text{ legs}}{250 \text{ sec}} \quad M.$$

As Judged from K:

$$\frac{360 \text{ legs}}{1000 \text{ legs}} \quad \frac{M}{90 \text{ sec.}} \quad \frac{O' \text{ K}}{90 \text{ sec.}}$$

$$[\text{Fig. 6(d)}] \quad \frac{R}{54 \text{ sec}} \quad \frac{600 \text{ legs.}}{150 \text{ sec.}} \quad D \text{ --- } K$$

The second picture is a miniature of the first, arising from the operation of the factor $\sqrt{1 - v^2 / c^2}$. If you take away the event of coincidence of clock R with leg 360 of the system K' on its left when clock R shows 54 seconds and the clock at leg 360 shows 90 seconds, you mutilate the second picture and destroy reciprocity which is a necessary consequence of the logic of the special theory of relativity.

Nor is there anything in the theory to allow preference to the standard of simultaneity of one system over that of another.

These paradoxes, accordingly, are irremovable in principle and as such are destructive to the theory.

ACCELERATIONS

Section 17

We may now take up the question of accelerations. The obvious purpose which accelerations serve is to give the separating clock a specific, uniform velocity and when it has reached the destination, to turn it round towards the origin with the same velocity and finally to bring it to halt at the origin. When an object moves at a particular, uniform velocity in a straight line, it is conceived to be associated with a particular inertial system in which it is thought to be at rest and the inertial system or better the inertial¹⁰⁵ space to be in motion with that particular, uniform velocity. If the object changes its direction or adopts another uniform velocity, it is said to have changed its inertial system. Accelerations can, therefore, be imagined to put an object in specific inertial systems or inertial spaces, by giving it a particular state of uniform motion or rest.

Accelerations were implicit in Einstein's thought from the very start, but he did not take explicit account of them. In his original paper in 1905, he first imagines a stationary rigid rod¹⁰⁶ and then requires that a uniform velocity V be imparted to it. Without accelerations a velocity cannot be given to the rod. In the same paper he imagines¹⁰⁷ a clock to move from A to B in any polygonal line. Without accelerations, the clock cannot move on a polygonal path as it has to change its direction off and on. But, unfortunately, he did not give explicit consideration to the fact of accelerations and developed his special theory assuming objects to be in a continued uniform motion without conceiving how they were to be put in that state. As pointed out above in Section 11, he came to the conclusion in 1918, when the clock paradox had already been in the arena for over half a

¹⁰⁵ Relativity, the Special and the General Theory by A. Einstein page 148, Methuen, London, 1960.

¹⁰⁶ Electrodynamics by A. Einstein, The Principle of Relativity, Dover Publications Inc. page 41.

¹⁰⁷ *Ibid.*, page 49.

dozen years, that as accelerations were involved in the problem, the paradox could be handled only under general relativity which he had propounded 3 years earlier. He, however, produced no detailed calculations and indicated only the general lines on which the problem could be tackled. Apart from this, he seems to have stopped discussing the clock question subsequent to 1911. Thus, in his book, 'Relativity, the Special and the General Theory', published in 1916 and in his book, 'The Meaning of Relativity', published in 1922, he discussed other aspects of the theory but made no mention of the clock problem. Einstein's followers have produced prodigious literature¹⁰⁸ on the clock paradox, but have given scant consideration in the context of special relativity to the question of accelerations which according to some of them, served the sole purpose of bringing about an asymmetry in the status of the two clocks.

Section 18

Accelerations give rise to rather unfamiliar consequences, some of which are highly unfortunate for the special theory.

Imagine two rods A B and P Q, each of 2000 legs lying side by side at rest so that their end points A and P on the left, middle points O and O' and the end points B and Q on the right coincide, respectively. The legs are numbered from their middle points, so that A and P will be at the thousandth leg on the left and B and Q on the thousandth leg on the right of each rod.

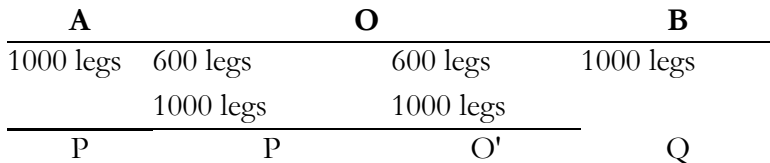
A	O	B
1000 legs ... 3	2 1 1 2 3 ...	1000 legs
1000 legs ... 3	2 1 1 2 3 ...	1000 legs
P	O'	Q

[Fig. 7]

¹⁰⁸ Selected bibliography of 241 items given on pages 184—199 of Time and the Space Traveller by L. Marder, University of Pennsylvania Press, 1974.

Let suitable accelerators be fixed on the rod PQ at appropriate distances and let there be synchronised clocks at each leg of the two rods. When all these clocks show zero hour, that is to, let the accelerators start functioning, so that they give the rod PQ a tremendous push simultaneously and put it at a uniform velocity of 4 legs per second in the shortest possible time. Let the instant at which the rod PQ has attained this velocity be termed t_1 , so that the interval between t_0 and t_1 , on the clocks on the rod AB is as small- as possible.

We stand at the middle point O of the stationary rod A B and ask 'where is the middle point O' of the rod PQ at the instant t_1 ?' It will be very unreasonable to suppose that it has shifted very far away from O in this short interval. If there are recording devices on the rod A B, they will record it close to, almost opposite the middle point O at the instant t_1 . By the same reasoning, the end point P will be recorded opposite A at this very instant and the end point Q opposite B. But the rod PQ has been said to have attained the uniform velocity of 4 legs per second by this instant t_1 , and it is no longer in the system K, but has been transferred to the system K' in which length will be contracted when judged from the system K. If the middle point O' of the rod PQ is judged to be in the vicinity of the middle point of O of the rod A B at the instant t_1 , the end point P of the rod PQ will not be opposite A but will be opposite $(1000 \times 3/5)$ leg 600 of the rod A B on the left because the rod PQ will be contracted from both ends towards O'

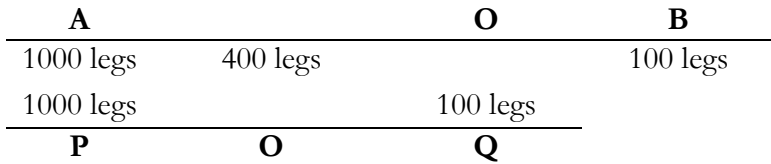


[Fig. 8]

This will involve a contradiction. The end point P will be at two places opposite A and opposite leg 600 of the rod AB on the left at one and the

same instant t_1 , in other words it will be opposite A and not be opposite A simultaneously.

If we take our stand at the point A of the rod AB, the point P will be opposite A at the instant t_1 , but the middle point O' of the rod will not now be opposite O of the rod AB, but will be opposite leg 400 of the rod AB towards the left at the instant t_1 , because the rod will now be contracted towards P



[Fig. 9]

Similarly, if we judge the situation from the end point B of the rod AB, the end point Q of the rod PQ will be opposite B, but the end point P and the middle point O' of the rod PQ will not be where they happened to be previously, but P will be opposite leg 200 of the rod AB on the left of O and O' will be opposite leg 400 of the rod AB on the right of O, the rod PQ being contracted towards Q.

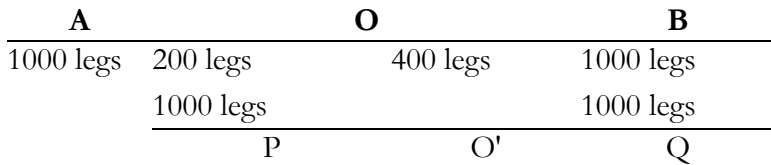


Fig. 101

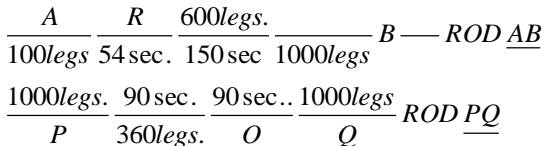
This shows that it is purely an arbitrary matter in this context where we fix our origin for the purpose of calculations and our calculated values of times and distances of the natural phenomena will depend upon and will vary with the whim and fancy with which we decide to fix the origin of our coordinate system. If so, this will hardly be physics because the quantities involved in natural phenomena are not subordinate to our fancy.

Section 19

Further, if we stipulate that a light ray starts from A or P at the instant the accelerators are started, with P carrying a message, P will reach O and deliver its message when the clock at O shows $(1000 \times \frac{3}{5} / 4)$ 150 seconds, because as judged from O, it was opposite $(1000 \times \frac{3}{5})$ legs 600 at the instant t_1 . But the ray of light will reach there when the same clock show $(1000/5)$ 200 seconds, that is, P will reach 50 seconds earlier than the ray of light, though according to observers at A and P, both started together when the clock at A showed zero hour, this clock being synchronised with the clock at O. Here, from one point of view, the light ray and the material point P start moving at the same instant to of the rod AB, but the ray of light covers the same distance. in 200 seconds and the material point P in 150 seconds. In other words, the material point P arrives at the destination earlier than light, the turtle beating the hare in a race.

Section 20

Notwithstanding these anomalies, we may proceed with the question as to how the clock paradox and/or its space counterpart may be affected by accelerations. We suppose that our clocks R and M are located at the origins O and O' respectively of the rods and the destination D is situated at a distance of 600 legs from R towards the right on the rod AB and immediately after accelerations, the (clock M on the rod PQ is opposite clock R. Clock M will reach when all the clocks on the rod PQ show 90 seconds each. Accelerations are, then, again given to this rod simultaneously to reverse velocity. This is now a physical restriction in the problem and our treatment of it must take this restriction into account. According, observers on the rod PQ when its clocks show 90 seconds, its leg 360 on the left will be opposite clock R which will show 54 seconds the clock at leg 360 will show 90 seconds.

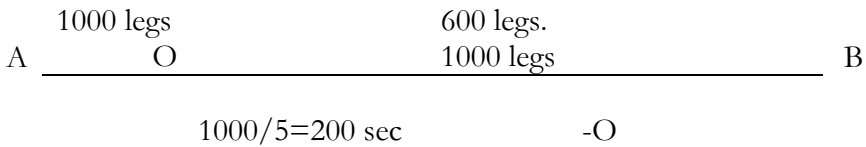


[Fig. 12]

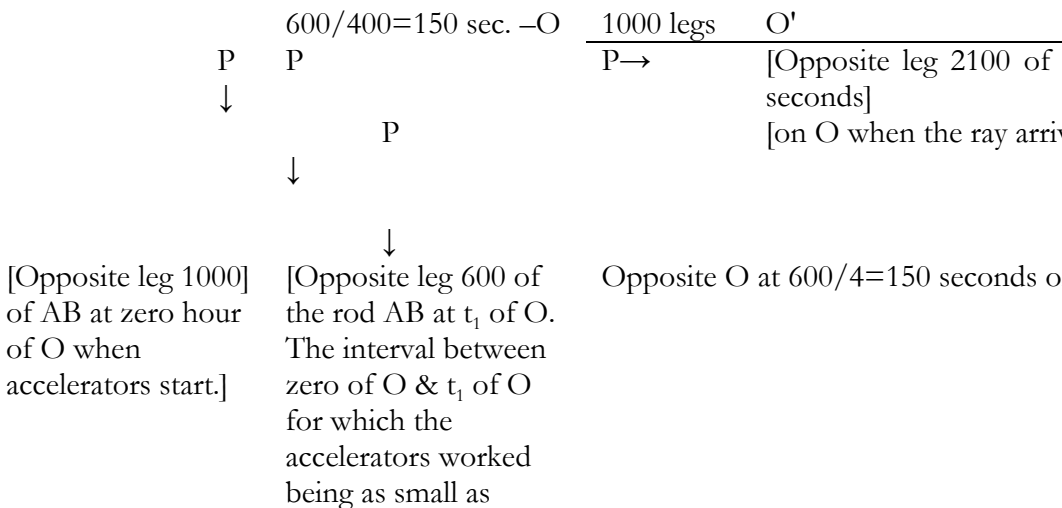
As judged from rod PQ reversion of the direction of movement takes place when leg 360 of the rod PQ is opposite clock R. On clock R time is

54 seconds and at leg 360 it is 90 seconds. Clock M is opposite the destination D. Time at D is 150 seconds and on clock M it is 90 seconds.

If the acceleration occurs according to observers on the rod AB also, when the clock R shows 54 seconds and when leg 360 is opposite clock R, so that leg 360 reverses its direction of movement at this instant, only 360 targets of the rod PQ will be shot down at the location of clock R for observers at the rod AB also and as such there will be no space counterpart of the clock paradox.



Ray of Light



possible]

[Figure. 11]

$$\text{ROD } \underline{AB} \quad \frac{A \quad \quad \quad O^R \text{ leg } 216 \quad 600^D \text{ legs.} \quad 1000 \text{ legs}}{1000 \text{ legs} \quad 54 \text{sec.} \quad 54 \text{sec.} \quad 54 \text{sec.} \quad 54 \text{sec.}} \quad B$$

$$\text{ROD } \underline{PQ} \quad \frac{1000 \text{ legs.} \quad 90 \text{sec.} \quad 162/5 \text{sec.} \quad 1000 \text{ legs}}{P \quad 360 \text{ legs.} \quad M \quad Q}$$

[Fig. 13]

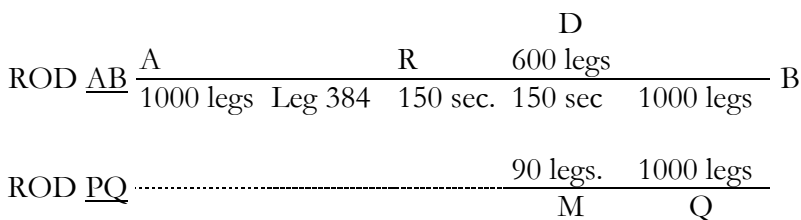
As judged from rod AB reversion of the direction of movement takes place when leg 360 of the rod PQ (contracted) is opposite clock R. On clock R time is 54 seconds and at leg 360 it is 90 seconds. Clock M is opposite leg 216 of the rod AB. Time at leg 216 is 54 seconds and on clock M it is 162/5 seconds. Clock M has not yet reached the destination D.

Section 21

But another paradoxical consequence of the point of view of these observers will arise in the following manner:

An observer situated at the location of clock R on the rod AB will agree that when clock R showed 54 seconds, leg 360 of the rod PQ was opposite clock R. This is because in his judgement, length on the rod PQ will be contracted, 360 legs of this rod being equal to $(360 \times 3/5)$ 216 legs of the rod AB and these will pass in front of the clock R in $(216/4)$ 54 seconds of that clock. He will also agree that time on the clock at leg 360 of the rod PQ was 90 seconds. This is because this clock would have been set $(360 \times 4/25)$ $\frac{288}{5}$

seconds ahead of the clock M which had not yet reached the destination D and was opposite (54 x 4) leg 216 of the rod AB on its right and time on it was (54 x 3/5) 162/5 seconds which when added to 288/5 seconds would make up (288/5 + 162/5) 90 seconds of the clock at leg 360. If the leg 360 of the rod PQ reverses its velocity when the clock at it shows 90 seconds, the rod PQ will not be rigid for the observers situated at the location of the clock R on the rod AB. The portion behind leg 360 on the left of the rod PQ will be going backwards and that in front will be going forward, because acceleration of the rod PQ will not be simultaneous to this observer. The acceleration will occur at the location of clock R when this clock shows 54 seconds and at the destination D when the clock at D shows 150 seconds. Therefore, for (150 — 54) 96 seconds, one end of the rod PQ will be going in one direction and the other in the opposite direction at 4 legs (of the rod AB) per second, so that when clock M reaches D, the leg 360 of the rod PQ will have traversed (96 x 4) 384 legs of the rod A B and will be 384 legs to the left of clock R. If leg 360 of the rod PQ is opposite leg 384 of the rod A B on its left and clock M is opposite the destination D which is at a distance of 600 legs of the rod AB on its right, according to observers on the rod AB, lengths on the rod PQ will have stretched, 360 legs of the rod PQ becoming equal to 984 legs of the rod AB.

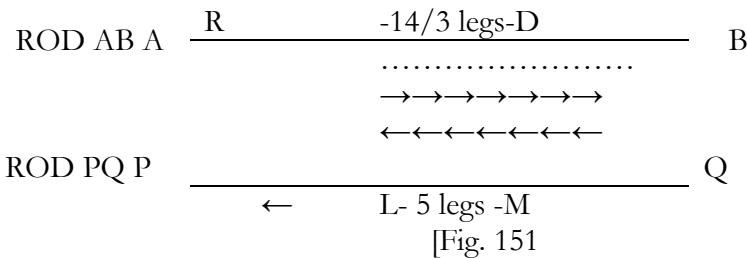


[Fig. 14]

As judged from the rod AB, when clock M reverses the direction of its movement, leg 360 of the rod PQ has already reached leg 384 of the rod AB on the left of clock R. Rod PQ has expanded, 360 legs of this rod becoming equal to (600 + 384) 984 legs of the rod AB, even though the rod PQ is moving towards the left.

Time on the expanded rod will now pass more slowly. This can be illustrated by means of the Einstein — Langevin ideal clock in which a ray of light travels to and fro between two mirrors fixed at a specified distance from each other. The velocity of light over an outward and return journey is considered to be the most satisfactory theoretical time standard in relativity. Let us suppose, one mirror is mounted at M and the other at L towards the left of M at a k distance of 5 legs measured on the rod PQ. The light ray will take one second of the rod PQ (system K') to travel from M to L and one second to travel back from L to M, thus covering a total distance of 10 legs in 2 seconds of PQ. The behaviour of this clock will be judged from the rod AB (system K) as under:

On the return journey from D to R, the rod PQ will be moving towards the left and 360 legs of it will measure the same distance as' 984 legs of the rod AB. Thus, one leg of it will be equal to 984/360 or 41/15 legs the rod AB and 5 legs of it between the mirrors M and L will be equal to $(5 \times 41/15)$ 41/3 legs of the rod AB.



The light will start from M at 5 legs of the rod AB towards L and L will move away from it at 4 legs of the rod AB in one second of AB. Thus, the ray will gain on the rod PQ a distance of (5—4) one leg of the rod AB in one second of AB. It has to cover a distance of 41/3 legs of the rod AB between the mirrors M and L. It will, therefore, take $(1 \times 41/3)$ 41/3 seconds of the rod AB to arrive at L. On its return journey towards M, it will move at 5 legs of the rod AB and M will move towards it at 4 legs of the rod AB in one second of AB. Thus it will cover a distance of (5 + 4) 9 legs of the rod AB in

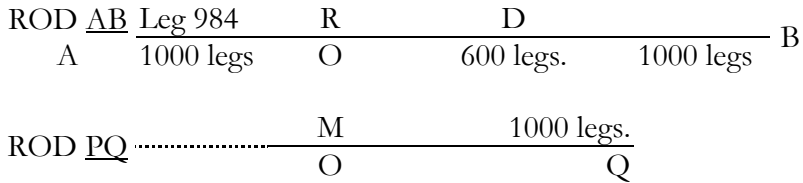
one second of AB, or one leg of the rod AB in $1/9$ second of AB and $41/3$ legs of the rod AB in $(1/9 \times 41/3)$ $41/27$ seconds of the rod AB. So the total time for the ray to start from M, get reflected at L and arrive back at M will be $(5/5 + 5/5)$ 2 seconds of the rod PQ and $(41/3 + 41/27)$ $410/27$ seconds of the rod AB. Or one second of the rod AB will be equal to $(2 \times 27/410)$ $27/205$ seconds of the rod PQ. But according to the observers on the rod AB, M will take $(600/4)$ 150 seconds of the rod AB to return from D to R and these 150 seconds will measure the same time interval as $(150 \times 27/205)$ $810/41$ seconds of the rod PQ.

The inquisitive reader, if so desired, may calculate on these lines the time of the clock M for its outward journey from R to D. The distances on the rod PQ, in this case will be contracted by the factor $\sqrt{1 - \frac{V^2}{C^2}}$ or $3/5$ in our example and 5 legs of the rod PQ between the mirrors M and L will be equal to $(5 \times 3/5)$ 3 legs of the rod AB. The calculated time will turn out to be 90 seconds of the rod PQ, the same as given by the time retardation formula. An essential feature of the theory, so little known or so little paid attention to, is the fact that observers in each system consider the velocity of one and the same ray of light to be C in their own system, but equal to $(C + V)$ or $(C - V)$ in the other system, depending upon the direction of the latter's movement.

Therefore, as judged by the observers on the rod AB, the total time of M to depart from R, arrive at D and return to R will be $(90 + 810/41)$ 109.75 seconds of the rod PQ. But as judged by the observers on the rod PQ, the total time of the journey will be $(360/4 + 360/4)$ 180 seconds on this rod. Thus, on return, clock M will be found to have added, upto a single moment, two times to its life, 180 seconds and 109.75 seconds. Or, if M could be substituted by Peter, the astronaut, Peter on return, will be found to be 180 seconds old and 109.75 seconds old at one and the same time.

As judged from rod PQ when clock M again coincides with clock R, leg 360 of the rod PQ has reached opposite leg 600 of the rod AB on its left and 600 targets have been shot down at leg 360 of the rod PQ.

But according to observers on the rod AB, 984 targets will be shot down at leg 360 of the rod PQ.



[Fig. 16]

As judged from the rod AB, when clock M again coincides with clock R, leg 360 of the rod PQ has reached opposite leg 984 of the rod AB on its left and 984 targets have been shot down at leg 360 of the rod PQ.

Targets from leg 601 to leg 984 of the rod AB will, therefore, need to be treated to have been shot down and not to have been shot down at the location of leg 360 of the rod PQ.

This again is physically impossible.

We have brought out this paradoxical aspect of the problem in order to forestall the suggestion that the space counterpart of the clock paradox can be avoided by accepting the view that only 360 legs of the rod PQ will confront the clock R when acceleration occurs at this leg and it begins to move backwards. In our opinion, by virtue of the two separate systems K and K' and the separate standards of simultaneity in each, two separate phenomena are involved in the problem. According to the system K the system K' will reverse its direction when all the clocks in the system K show 150 seconds simultaneously, but according to the system K', it or the system K will reverse the direction of its movement when all the clocks in the system K' show 90 seconds simultaneously. Even if, for the sake of

argument, we concede that acceleration occurs according to the system K also at leg 360 of the rod PQ when the clock of the system K opposite this leg shows 54 seconds, a space distance of further 640 legs will still pass in front of the clock R, because the co-moving inertial system or inertial space in which clock M is at rest will keep on moving as long as clock M does not reach the destination D. Therefore $(360 + 640)$ 1000 legs of the inertial space associated with clock M will still pass in front of clock R even though the material atoms constituting the rod PQ from leg 361 backwards may have left this inertial space and landed into another one.

Section 22

The upholders of the theory claim that considerable experimental evidence now exists which confirms the special theory of relativity. Doubts seem to have been expressed by scientists¹⁰⁹ themselves about the validity of the alleged confirmatory evidence. The contention in this paper is that even if there exists experiment-al evidence, it needs to be explained on the basis - of some other theory, special relativity theory being inconsistent with physical fact.

Further, the experimental evidence of one-sided time retardation, such as on clock M alone, will falsify the reciprocity aspect and will, thus, destroy the validity of the special theory which predicts what we have been arguing, two-sided, reciprocal time retardation, such as mentioned in the third answer in section 2 above, of which, in the very nature of things, there can be no experimental evidence.

Section 23

There are a number of solutions of the clock paradox¹¹⁰ in relativity literature. These can, perhaps, be criticized destructively and the fallacy lying in each can be exposed, but this is not possible here. Many of these solutions are in the context of the Dingle aspect of the paradox. As the Dingle paradox arises from the initial fixation of the distance of travel and, in fact, is not a paradox at all, these solutions are irrelevant. As regards the solutions of the

¹⁰⁹ The Logic of Special Relativity, J. Prokhovnik, pages 18—21.

¹¹⁰ Items at 4, 7, 9, 9-i, 10, 11, 12 13, 14-ii, 16-i, 17-i, and 19 reprinted in Special Relativity Theory, Selected Reprints, American Institute of Physics, New York.

serious aspect of the paradox, these suffer, one and all, from a remarkable fallacious, procedure The requirement is to show convincingly that the paradox cannot arise. These solutions, on the other hand, concede first, implicitly or explicitly that the paradox does arise from the concept of relativity of motion and then ignore, unwittingly or deliberately, some essential feature of the theory, or step clean outside the theory and bring forth ad hoc, extraneous and arbitrary reasons for the acceptance of one-sided time retardation. If the paradox arises from the principles of the theory, then it does arise and the requirement is to accept it and face the consequences.

Section 24

It is interesting to note that Einstein began to construct his special relativity theory with almost the same definition of time as that formulated by the Muslim Ashrite Mutakallimun. According to the Ashrites:¹¹¹

"time is a specified occurrence with which is correlated another unspecified occurrence in order to. remove the ambiguity in the latter. — For example, if it is asked, "when did Zaid come?", the reply may be, "when the sun rose", if the questioner witnessed the event of sun-rising but did not witness the event of Zaid's arrival",

خامس المذهب فى حقيقة الزمان مذهب الاشعرة وهو انه متجدد و معلوم يقدر به متجدد سبهم ازالة لا مبهامة... فاذا قيل مثلاً متى جا زيد يقال عند طلوع الشمس ان كان المخاطب الذى هو السائل مستحضر الطلوع الشمس ولم يكن مستحقوا لمجنى زيد كم دل عليه سواله ()

Obviously the rising of the sun and the arrival of Zaid are here simultaneous events.

¹¹¹ Sharah-al-Mawaqif by al-Jurjani al-Sayyid al-Sharif, Ali Ibn Muhammad, Newal Kishore, Lucknow, page 268.

In his first paper on relativity in 1905 Einstein wrote¹¹²... all our judgements in which time plays a part are always judgements of simultaneous events. If, for instance, I say, "That train arrives here at 7 O'clock", I mean something like this, "The pointing of the small hand of my watch to 7 and the arrival of the train are simultaneous events.

It might appear possible to overcome all the difficulties attending the definition of "time" by substituting "the position of the small hand of my watch" for "time".

Both the definitions are the same in substance and provide the procedure for dating or clocking an event.

The Mutakallimun were primarily concerned with the nature of time and with the question of its objective existence. They did not believe that time was something existing in its own right¹¹³; it was, according to them, a sort of abstraction by imagination from the occurrence of events.

Einstein seems to adopt a similar view. He writes:¹¹⁴

.....We have attempted to describe how the concepts of space, time and event can be put psychologically into relation with experiences. Considered logically, they are free creations of human intelligence, tools of thought, which are to serve the purpose of bringing experiences into relation with each other

¹¹² A. Einstein, 'On the Electrodynamics of Moving Bodies in the Principle of Relativity, Dover Publications, Inc. page 39.

¹¹³ Sharah-al-Mawaqif by al-Jurjani al-Sayyid al-Sharif, Ali Ibn Muhammad, Newal Kishore, Lucknow, page 257. "The Mutakallimun denied [the existence of] time... a changing continuous quantity just as they denied [the existence of] number and the unchanging continuous quantity".

المتكلمين كم انكر والعدو والمقدار الذي هو لكم المتصل القار انكرو وايض الزمان الذي هو لكم المتصل الغير القار
(شرح المواقف از سيد الشريف على الجرجاني، صفحہ 257)

¹¹⁴ Relativity, The Special and General Theory. A. Einstein, Methuen, London, 1960, page 141.

Though Einstein does not directly question the objective existence of time, he seems to fall in line with the position of the Mutakallimun by calling the concepts of space and time 'free creations of human intelligence' and 'tools of thought'.

In not very distant past the position of the Mutakallimun was upheld by Behr-ul-Ulum, Abdul Ali and Syed Barkat Ahmed of Khairabadi school of thought. According to these thinkers, it is the things themselves which are qualified with the concepts 'before' and 'after' and time as a quantity is an intellectual abstraction there-from¹¹⁵

قبلیت و بعدیت کے ساتھ بالذات وہ اشیا موصوف ہیں جو متقدم و متاخر ہوتی ہیں اور زماں نام ہے

اس امتداد موہوم کا جو وہ اشیا کے تقدمات و تاخرات سے منتزع ہوتا ہے۔

Very recently, Dr. G. J. Whitrow, Senior Research Fellow of the Imperial College of Science and Technology, London, surveyed the problem of time in its various aspects in his book, "The Natural Philosophy of 'Time',

¹¹⁵ Iqbal Review, July 1968, page 37, The Iqbal Academy Pakistan, Karachi, Urdu translation of Itteqan-ul-Irfan fi Mahiat-uz-Zaman by Syed Barkat Ahmed, translation by Hakim Mahmood Ahmed Barkati.

اقبال ریویو جولائی 1968ء، صفحہ 37، اقبال اکادمی پاکستان کراچی، اردو ترجمہ رسالہ اتقان العرفان فی ماہیۃ الزمان از سید برکات احمد، ترجمہ از حکیم محمود احمد برکاتی۔

1980 edition, and wrote in conclusion¹¹⁶, "I maintain, however, that our conscious awareness of time is neither a necessary condition of our experience, in the sense intended by Kant, nor a simple sensation, as Mach believed, but an intellectual construction that depends not only on our physical surroundings, but also on the particular type of culture in which we happen to live".

A little further on he writes:¹¹⁷

".....without activity there can be no time. Consequently, time does not exist independently of events, but is an aspect of the nature of the universe and all that comprises it".

By calling time 'an intellectual construction' which 'does not exist independently of events', Whitrow would seem to fall in line with Abdul Ali and Barkat Ahmed and thereby vindicate the insight of the Mutakallimun who, like Einstein, had considered that the important thing about the concept 'time' was the practical requirement of determining the date, that is, the time of occurrence of events.

Section 25

Another instance of insight of the Mutakallimun in the problem of time, which is being upheld today concerns the question of the origin of the universe. The Mutakallimun believed that the universe was *not* eternal and

¹¹⁶ The Natural Philosophy of Time by G. J. Whitrow, second edition, 1980, Clarendon Press, Oxford, pp 370-371.

¹¹⁷ *Ibid.*, p. 372.

had begun to exist. They based their proof for the existence of God on the beginning of the universe. Imam Ghazzali's version of the proof is as under:¹¹⁸

1. Every being which begins has a cause for its beginning.
2. The world is a being which begins.
3. Therefore, it possesses a cause for its beginning.

The proof is known in the West as the Kalam Cosmological Argument. Dr. William Lane Craig wrote a book in 1979, titled 'Kalam Cosmological Argument', in which he assessed 'the worth of the argument in light of modern developments in philosophy, theology, mathematics and science,¹¹⁹ and came to the conclusion that the argument is most likely to be a sound and persuasive proof for the existence of God.¹²⁰ He devotes one chapter of the book to al-Kindi and another to al-Ghazzali. They, both, had argued, not only for the beginning of the world, but also for the beginning of time itself. The central issue of their arguments was, 'whether the temporal series of past events could be actually infinite.¹²¹ They argued that it could not. The summary form of one of the arguments of al-Kindi for the finitude of time as given by Craig is as under:¹²²

".....any given moment can not be reached until a time before it has been reached, and that time cannot be reached until a time before it has been reached, and so on, ad infinitum. But it is impossible to traverse the infinite; therefore, if time were infinite, the given moment would never have arrived. But clearly a given moment has arrived; therefore, time must be finite".

¹¹⁸ Al-Ghazzali, *Kitabul-Iqtisad fil Ihtiqad*, with a foreword by Ibrahim Agah Cubukou and Huseyin Atay, University of Ankara Press, Ankara, pp 15-16. Quoted from p. 44 and p. 59 of *The Kalam Cosmological Argument*, William Lane Craig, 1979, Library of Philosophy and Religion, University of Birmingham.

¹¹⁹ *The Kalam Cosmological Argument*, William Lane Craig, 1979, Library of Philosophy and Religion, University of Birmingham, pp 1-2, Preface.

¹²⁰ *Ibid.*, p. 63.

¹²¹ *Ibid.*, p. 1, Preface.

¹²² *Ibid.*, pp. 22 and 56, Al-Kindi, *On First Philosophy*, pp. 74-75.

The Muslim philosophers such as Farabi and Ibn-i-Sina considered that the universe was eternal but was finite in spatial extent. To the commonsense question 'what was beyond the world', they replied that the question was not meaningful; nothing was beyond it, neither empty space nor occupied one. A similar question arises today in connection with one particular cosmological model of a finite but expanding universe; as to what it is expanding in and this question is being met in a similar answer applied to the question what was 'before' the creation of the world. He wrote,¹²³ "There is no difference between temporal extension which is described in terms of its relations, as 'before' and 'after' and spatial extension .. which is described in terms of its relation as 'above' and 'below'. If it is possible to have an above-less 'above', it should also be possible to have a before-less 'before'."

As regards the beginning of time and the world, the Imam wrote¹²⁴

"Time did have a beginning; and it was created. And before time, there was no time whatsoever. When we say: "God is prior to the world and time', we mean that He was and the world was not; and that, afterwards, He was and the world was together with Him In order to understand this statement, it will not be necessary to suppose any third thing". The third thing, viz., time, obviously comes into being with creation of the world.

¹²³ Tahafut Al-Falasifah, Al-Ghazzali, English translation by Sabih Ahmad Kamali, Pakistan Philosophical Congress, Lahore, 1958, pp 38-39.

¹²⁴ *Ibid.*, p. 36.

According to the present-day cosmology, the universe began with a great explosion (termed big bang) from a state of infinite density about 15 billion years ago. Four prominent scientists describe that event in these words:¹²⁵

".....the universe began from a state of infinite density about one Hubble time ago. Space and time were created in that event and so was all the matter in the universe. It is not meaningful to ask what happened before the big bang: it is somewhat like asking what is north of the North pole".

Professor Whitrow writes:¹²⁶

".....the concept of a first moment of time is not a self-contradictory concept, for it may be defined as the first event that happened . . . for example, the initial 'explosion' of an expanding universe There was no time before that".

The position of the Mutakallimun, al-Kindi and al-Ghazzali, therefore, seems to have been well-founded.

The age of the universe is determined according to the scale of cosmic time¹²⁷ which Einstein introduced in his general theory of relativity in 1917 and which is a sort of universal time. If the relativistic time which is, now, considered to be a local phenomenon can be abandoned altogether, universal time or some variant of it, is again likely to prevail in science.

Section 26

¹²⁵ J. Richard Gott III, James E. Gunn, David N. Schramm and Beatrice M. Tinsley, 'Will the Universe Expand Forever?', Scientific American, March, 1979, quoted from pp. 116 & 162 of the Kalam Cosmological Argument by William Lane Craig, 1979, Library of Philosophy and Religion, Birmingham University.

¹²⁶ The Natural Philosophy of Time, G. J. Whitrow, second edition 1980, Clarendon Press, Oxford, p. 33.

¹²⁷ *Ibid*, p. 283.

From an early time in their history, Muslims-displayed a keen interest in the problems of space and time. According to Iqbal:¹²⁸

" ... both in the realm of pure intellect and . . . higher Sufi-ism, the ideal revealed is the possession and enjoyment of the infinite. In a culture, with such an attitude, the problem of space and time becomes a question of life and death".

A little after the middle of the sixth century Hijra, a sufi thinker conceived of different orders of space and different orders of time for different types of entities. His views have been summarized by Iqbal in his *Reconstruction of Religious Thought in Islam* in the name of Iraqi¹²⁹ and Dr. Razi-ud-Din Siddiqi has also referred to them in his book on Iqbal¹³⁰. It has since transpired through the researches of Nazar Sabri¹³¹ that the worthy sufi in question was not Iraqi, but Shaikh Taj-ud-Din Mehmood Ashnawi. There seems to have been a Muslim tradition not to mention ones name in ones own publication lest one be projecting oneself. Hence, probably, the misapprehension in this case.

Though Einstein had postulated a plurality of inertial spaces and the resultant plurality of time systems, the approaches of Einstein and Shaikh Ashnawi were vastly different and, therefore, the parallel in their views does not go beyond the plurality of space orders and plurality of time orders. Even

¹²⁸ The Reconstruction of Religious Thought in Islam, Sir Mohammad Iqbal, Shaikh Muhammad Ashraf, Lahore, 1954, p. 132.

¹²⁹ *Ibid.*, p. 75 and pp. 135-137.

¹³⁰ Iqbal Ka Tassawar-i-Zaman-o-Makan, Razi-ud-Din Siddiqi, Majlis-e-Taraqi-e-Adab, Lahore, 1973, pp. 95-96.

اقبال کا تصور زمان و مکان اور دوسرے مضامین از ڈاکٹر رضی الدین صدیقی، مجلس ترقی ادب لاہور، 73، ص 95-96

¹³¹ Ghayat-ul-Amkan-fi-Mabrifat-uz-Zaman-wal-Makan, Shaikh Tajud-Din Mehmood bin Khuda Dad Ashnawi, Majlis Nawadraat-e-Ilmya, Attock, Campbellpur, 1401 Hijra with a Preface and a prolegomena by Nazr Sabri, p. Meem, Ya.

غایۃ الامکان فی معرفۃ الزمان والکان اذ شیخ تاج الدین محمود بن خداواشنوی، مجلس نوادرات علمیہ، انٹک کیمپلور، 12 ربیع الاول 1401ھ پیش لفظ و مقدمہ از

then, to have anticipated a development in human thought by some eight centuries is no small matter.

The special theory of relativity radically modified the existing ideas about space and time. The reaction to it in Muslim circles does not seem to be what it need have been. The working Muslim scientists show a trend to accept its teachings uncritically and on authority, yet the voices of criticism and dissent were not altogether lacking. The late Justice Sir Shah Mohammad Sulaiman, an important jurist and scientist, disagreed with the theory. The late Dr. Iqbal who was much intrigued with the philosophical implications of the theory, was dissatisfied with the manner in which the theory regarded 'the future as something already given, as indubitably fixed as the past' wherein 'events do not happen; we simply meet them.'¹³² As pointed out by Razi-ud-Din, this was a rather distorted view of the theory¹³³, which was in vogue then, but it must have exercised Iqbal's mind considerably, according to whom time was 'a free creative movement.'¹³⁴ But for his untimely death, he was to lecture at Oxford¹³⁵ on the subject of space and time, a subject in which he was deeply

¹³² The Reconstruction of Religious Thought in Islam, Sir Mohammad Iqbal, Shaikh Muhammad Ashraf, Lahore, 1954, pp: 38-39.

¹³³ Iqbal Ka Tassawar-i-Zaman-o-Makan, Razi-du-Din Siddiqi, Majlis-e-Taraqi-e-Adab, Lahore, 1973, p. 119.

اقبال کا تصور زمان و مکان اور دوسرے مضامین از ڈاکٹر رضی الدین صدیقی. مجل سترقی ادب لاہور 1973. ص 119

¹³⁴ The Reconstruction of Religious Thought in Islam, Sir Mohammad Iqbal, Shaikh Muhammad Ashraf, Lahore, 1954, p. 38.

¹³⁵ Dr. Javed Iqbal, Lahore, in a letter to the author.

Dr. Sir Mohammed Iqbal
BAR-AT-LAW

MAYO ROAD

Lahore 1928

Your Highness,

I have been long intending to write to your Highness; but unfortunately I have been prevented from doing so on account of ill-health, which has now extended over 3 years. I feel, however, a little better than before and have made up my mind to address you in the hope that in the multiplicity of state affairs which must be engaging your attention, you will find time to reflect over the contents of this letter even though it is bit long. Briefly, I want to interest your Highness in the future of Islam and Islamic culture in India. I have every hope that my letter may help your highness in clearly seeing your duties as a muslim ^{as a muslim} ruler and as a lineal descendent of those from the fountain of whose religious consciousness flowed the stream of this religion and culture.

Since I know that your Highness is deeply concerned in the matter far more deeply than any body else in India-to you alone can I disclose my mind and its apprehensions with regard to the problem which is now confronting the Muslims of India. I suppose your Highness knows that I have devoted the last 30 years of my life to a clear exposition of the underlying principles of Islam

Dr. Sir Mohammed Iqbal
BAR-AT-LAW

Lahore.....

MAYO ROAD

1930

and its culture. Now that I am old, and my energies are exhausted I painfully find that fresh forces have begun to work in the body politic of ^{India} which are likely to seriously affect the future of Islam and its culture in India.

The Indian Constitution has laid the foundation of a great and silent revolution in the outlook and ideals of the people of this land. The Indian National Congress has begun to show itself in its true colours. The policies of those who are at the helm of affairs can not be trusted, for there is nothing of abiding value in them and they change with the changes of times. The behaviour of the Ulemas of Islam who have participated in Indian politics have shown that they have absolutely no grasp of the Muslim situation in India. Indeed the most learned of the Ulema have shown themselves to be the most stupid of them. It was reported the other day in the papers that a Muslim student of the Lucknow University openly declared that he was not a Muslim. I have reasons to believe that modern conditions are producing a type of Muslim youth who privately if not publicly ridicule religion. In the shape of a political song-Bandematram the Muslim-Congress-man is perhaps unconsciously learning to invoke the idol of ancient India. The Congress

Ministry of the Frontier has already taken steps which may ultimately lead to the abolition of the Islamia College Peshawar. There are the signs of times, and I have no doubt that they have not escaped your Highness's keen insight. In these circumstances every Muslim has a duty to perform. We are all responsible to God and His Holy Prophet and our duty is to see that Islam fulfils its destiny in this country. Is it not high time that we should all make an effort to shape coming events according to the best interests of Islam? Our efforts must be directed to the revival of Arabic language and literature to bringing Indian Islam back to its original sincerity and purity and to encouraging the publication of literature which may illuminate the way to our destination. In this enterprise your Highness alone can give the lead to the Muslims of at least North-west India. I have only briefly indicated the general problem which confronts Indian Islam; Details may be worked out later. For the present my only object is to interest your Highness in this serious situation, in the hope that you may give anxious thought to the subject of my letter, and start cultural movement which may help the Muslim to assimilate all that is good and noble in our times and reject all

Dr. Sir Mohammed Iqbal
BAR-AT-LAW

MAYO ROAD

Lahore.....

1937

that is injurious to the body politic of Islam
If you initiate this movement in a proper manner
posterity will regard you as one of the greatest
leaders of Islam in India. Men pass away; their deeds
alone live and prosper.

Yours sincerely

Muhammed Iqbal

9th October, 1937.

My dear Sir Iqbal

Assalamu alaikum wa rahmat ullah wa barkatuh!

I was extremely delighted to get your letter for which I thank you very much.

You have indeed touched on a problem which has, for quite a long time been causing me much concern and anxiety. I am indeed greatly honoured and deeply touched by all the kind references you have made about myself and my State.

The situation as it stands is indeed well deserving of a united effort by those who like yourself are deeply versed in all questions pertaining to the most noble and uprighteous of faiths, our Islam. At times such as these through which we are passing, when we daily come to learn of incidents that are in every respect most derogatory to the interests of our faith, and shameless in the eyes of selfrespecting people, and are in themselves of a nature that apart from laying down undesirable precedences and bad examples are indeed very much detrimental to the interest of our much cherished cause. It is indeed most heartrending and disappointing that we can do nothing but have to silently witness the passing of time without correction or remedy.

of matters of which I would like to know more, I keenly feel my ignorance and also realise my helplessness by not having, worthy lieutenants near me who could correctly understand the true sense of what all of us owe to our Creator and to Him Whom He hath sent to guide us. I find myself surrounded by a world full of people eager only for their own betterment forgetting Him Who giveth all which we seek. All my endeavours for better and more desirable solutions to the many most intricate and mighty problems, which most rightfully deserve my time and consideration, thus remain unaccomplished and I feel that many a good opportunity has slipped by when I could have done some duty in the service of my Master and Creator.

I can assure you that during the last 14 years that I have looked after my State and people I have through the bounty of Allah had occasions to come into contact with, and know and learn from so many types, creeds and classes of the people, my fellow creatures, that I feel I am now in a position to serve His Cause if only it should be His wish and command, of course, all of us cannot or do not get every desire fulfilled but as long as there is faith,

reason why He who has the power to create and dispose of mighty things, cannot bestow His bounty on those of us who are in constant need of His goodness and blessings.

In my humble way I have for a long time given much thought to the very questions that you have made references to, but I find that with the present state of affairs when alas! we all stand not as one but divided, what is then to be done? What should be the remedy that we should seek?

Of course, so much can be done, and certainly such is being done, but the way that the different individuals, bodies and missions scattered throughout the length and breadth of the world are working, even these if correctly judged and given their full value with their numerous individual interests so very far apart one from the other that I shudder to see how much injury, (even if the intention or the enterprise be with the best of intentions for the betterment of Islam), are doing with their different methods of carrying out their missionary propaganda. They are indeed giving sufficient food for thought to those who eagerly await an opportunity to adopt, if not the religion, the principles and doctrines of Islam. The various activities of the different missions, each vying with the other for supremacy

and influence causes much anxiety and hesitation on the part of those eager to adopt our Faith.

Needless to add there is so much one could write about, but sincerely hoping that Insha-allah in the very near future I shall have the pleasure of meeting you, I see no necessity in lengthening this letter in which I feel I have already allowed my feelings to run riot, 'so please excuse me if you find all I have said, not too interesting.

I do hope that you are much better in health. It is indeed a very long time since we last met.

With sincere good wishes for your health and every happiness and with my best wishes and kind

regards.

Dr. Sir Mohammed Iqbal,

Kt: M.A., Ph.D..
Bar-at-Law,
Jawid Manzil,
Mayo Road,
Lahore.

Yours ever Sincerely

(Sd) S. N. Abbasi

Nawab Sadiq Muhammad Abbasi's reply to Iqbal's Letter. Reprinted with the courtesy of Sahibzada Qamaruzzaman Abbasi, grandson of the Nawab of Bahawalpur

interested. With the dawn of 'space age' this subject has taken vastly increased importance. Let the Muslim theoretical thinkers pick up the thread where Iqbal left.

Iqbal As Poet And Thinker

A. A. Ansari

The variety of changing critical perspectives that have been brought to bear upon Iqbal's poetry reflects its width of reference and its strata of significances. His supreme distinction among con-temporary thinkers and poets lies in the unique freshness and originality of his genius. He hardly made any experiments in poetry, for he was primarily concerned with crystallizing into distinguished utterance both his critique of the Western civilization and the exposition of his own view of Reality. It is a truism repeated time and again that Iqbal's genius, originally nurtured on the Eastern sources, was further enriched and sharpened by his assimilation of the Western philosophical tradition. While drinking deep at the fountain-heads of knowledge abroad Iqbal had the opportunity of scrutinizing under currents of thought and ponder over the intellectual attitudes which were in vogue at that time. He was fully aware of the dangers inherent in that line of approach and could very well perceive how, little by little, the European civilization was heading towards the inevitable, logical crisis of its destiny. It may not be far from truth to argue that his close and intimate acquaintance with the Western modes of thought and value-system set up a strong reaction against them in his mind; simultaneously, it generated in him the impulse to reformulate the premises on which his own vision of Reality came ultimately to rest.

Iqbal regards the Medieval Arab thinkers as the *via media* through which the intellectual heritage of the Greeks was passed on to the West. But for this bridge built across the abysm of time, the Dark Ages, one should presume, could never pave the way for the blossoming forth of the Renaissance temper. Bacon is the one major figure in the Sixteenth Century England who is given undue credit for opening up new vistas of knowledge by insisting

upon the adoption of the Inductive method and the empirical approach to the exploration of the mysteries of the phenomenal world. But it is now an incontrovertible datum that Bacon's radical interpretation of the given Reality had already been anticipated by the Arab philosophers. The Medieval Muslim thinkers, it must be conceded, were not mere commentators on the Greek texts or quiescent transmitters of knowledge, but they were also given to philosophical speculation in their own right. Apart from the amazingly original contribution of Avicena, Al-Farabi and Ibn-e-Khaldun to human knowledge — a contribution whose solidity and comprehensiveness have been only recently recognized — what is even more sticking and relevant is the emancipation of the human mind brought about by their works and the impetus provided by them for an objective and revealing study of both the contingent and the transcendental Reality. The Western Europe was stimulated by this fact to break away from the shackles of dogmatic theology which had fettered the human mind in the Middle Ages.

The appearance of Iqbal on the contemporary scene of Indian life was an ambivalent and therefore a unique phenomenon. Not only did the Muslims of India — a religious and cultural entity to which he himself belonged — feel uprooted but the whole of Asia seemed to be plunged in the cauldron prepared by the expanding Imperialist hegemony. His own co-religionists were on the verge of the breakdown of predictable expectations in which new radical choices had to be made: they were thus faced with a 'boundary' situation. Very much like T. S. Eliot in a similar predicament Iqbal was conscious of the lack of total commitment on their part and therefore what was required was a leap of faith which could help them make a successful assault on contemporary realities. The aftermath of the First World War saw the decay of the old order of Civilization in the West. This and the 1917

Revolution in Russia provided the immediate political context for the poetry of protest Iqbal came to compose in the earliest phase of his career. He welcomed the Revolution with all the spontaneity and expectancy of his soul but only tentatively approved and later on rejected the ideological bulwark supporting it. After a careful sifting of facts and because of his moral earnestness and deep-seated anxiety for the victims of political and economic exploitation Iqbal came to realize that he should anchor his faith on to a more realistic and comprehensive value-system. His was a quest for a principle of Universalism and this he found embodied in those social and economic doctrines of Islam he considered to be truly egalitarian in intention and emphasis. It may be reiterated that Iqbal's was not an advocacy of any kind of sectarianism but an approach to life that was in consonance with and satisfied the basic urges and needs of human kind.

Iqbal's most well-known poems like 'Khizr-e-Rah', 'Tutu'-i-Islam' and the one about Revolution in *Zubur-i-Ajam* owe their lilt, their hectic display of colour and their swirl of passion to his firm conviction that the dawn of the era of freedom and equality he was looking forward to was bound up with the acceptance of the radicalism of Islam. Iqbal's poetic development in its earliest phase may therefore be viewed in terms of a search and a discovery. The search is made, initially, with passionate sincerity and almost total non-commitment: the discovery is irradiated with the glow of faith and an absolute resignation of will.

Like some of the European thinkers and creative writers Iqbal too subjects the Western civilization to harsh and withering criticism. Two aspects of this criticism arrest our attention all at once. During his stay in Europe Iqbal had witnessed the emergence of the concept of nationalism and this was used as a kind of camouflage for covering up all varieties of political and territorial ambitions and strategies. The jealously guarded sense of political identity was allowed to grow at the expense of all other allegiances. In fact the larger cosmopolitan or world outlook was completely ignored or slurred over. The result was the steady growth of "a militant kind of national consciousness — a sense of being hedged in by one's historico-geographical contexts. Powerful political and economic systems like Fascism, Nazism or even Bolshevism, supposed to have a global character and claiming to demand extra-territorial loyalties, were also seen to converge at long last towards some kind of regional groupism. National sentiment countered them at every step. The narrowness and

parochialism bred by such an outlook was repugnant to Iqbal and he could perceive with an uncanny insight that an adherence to this kind of pernicious nationalism was bound to strike at the very roots of a truly humanistic culture. He was therefore constrained to take up arms against it. This concept appears to be subservient to a kind of political adventuring relating to the achievement of imperialistic designs and was instrumental in safeguarding the interests of a particular nation-state.

But apart from his indictment of any specific ideology or value-system Iqbal was much more concerned with attacking some of the fundamentals upon which the Western outlook on life was based. In other words, he rejects its purely materialistic basis, for to him the nature of Reality, in its ultimate analysis, is spiritual. For him life proceeds from an eventuates into consciousness which is synonymous with the Indefinable, and matter is the greatest impediment placed in its way which the flow of life in its sweep brushes aside. The evolution of life is generally defined in terms of the increasing refinement which matter achieves in the various stages of its onward progression. But Iqbal does in no way accept the primacy of matter nor does he accept the assumption that human consciousness is the end-product of its evolution. It is not matter but consciousness which, according to him, is reflected in the multiple aspects of life. While matter and its various forms imply a degree of passivity, consciousness, on the contrary, is equivalent to freedom and the possibility of a choice. Iqbal is opposed to all forms of necessitarian-ism, mechanism and constraint. He is, on the other hand a strong advocate for the freedom of the human will, the assertion and affirmation of the Ego and the continuous subdual of matter by the human consciousness. Like Eliot and D. H. Lawrence in the West Iqbal insisted that we should try to resist the pressure of mechanization over the finer impulses of the human spirit in order to save it from coarsening. The West has turned the machine into a totem with the result that human beings are treated as lifeless objects and

human relationships have lost all their sanctity and tenderness. Iqbal was deeply and painfully aware of the fact that unless the tremendous reservoir of energy placed at our disposal by the scientific potential were properly harnessed and controlled by the moral order of values humanity would be in peril. He was not so much perturbed by the achievements of science as by the scientific culture and the entire spectrum of values associated with it.

Belief in the primacy and supremacy of matter leads to the negation of a God-oriented universe as well as of one in which consciousness is the focal point and the primary datum. This Iqbal takes dare to deny vehemently. For him the progression of life is teleological; it is teleological not in the sense that this progression is pre-determined but that it does ultimately move forward to some kind of goal or objective. This goal or objective is not foreseen but it does emerge during the course of the evolution of life. Life is not to be equated only with movement or flux in the sense of being mind-less: it is indeed a flowing stream, but its movement is purposive and meaningful. It is this movement which creates values and objectives, gives birth to ideals and aspirations and it is in process of this realization that life really seeks to justify itself. It would be unfair to ascribe all this to Iqbal's indebtedness to Bergson, for Iqbal's main grievance against the latter — a grievance which is validated with all the logic at his command — is that he has brought in rigidity and mechanism either inadvertently or consciously through the back door.

It may be added here that though the ultimate nature of Reality, according to the Qur'an, is spiritual — and Iqbal subscribes to it unequivocally and whole-heartedly — yet the material, the temporal and the secular are the necessary outward modes of its manifestation. The spiritual and the temporal, as pointed out by Iqbal in his Lectures, are not two distinct domains in Islam but they have their subtle points of contact. In other words what we designate as secular or material is really sacred at the

roots of its being provided the frame of mind we bring to bear upon its contemplation or handling is fully cognizant of the complexity of things. The material world is the sphere of enactment for all our ideas and intuitions and in it consists the life of the spirit. 'The truth, however, is,' maintains Iqbal, 'that matter is spirit in space-time reference.'

Iqbal's view of Reality is characterized in the first instance by the fact that life for him is not static but dynamic. This knocks out the bottom of the view taken by the Greeks in general and by Plato in particular. Iqbal owes his debt in this regard partly to Bergson and partly to the Medieval Muslim thinkers. Its real germs are, however, to be found in the teachings of the Holy Qur'an itself. The latter lays emphasis on the principle of movement as involved in the very structure of the Universe which we live in. It also enjoins the necessity of deed or action as an inevitable complement to belief or idea. Solitary contemplation or mere belief unattended by any motivation to action is likely to turn individuals into self-contained entities. In order to achieve the greatest good of the greatest numbers, in order to make the individual an effective member of the body-politic and an active participant in the community which he belongs to it is imperative that he should be able to break the shell of his exclusive and insulated existence. What Iqbal calls Ego is really equivalent to the human potentialities existing in a state of embryo. The self or the Ego is enabled to realize itself when these latent psychic energies are released and actualized, and they can be actualized only in terms of action. In the polarization of Being and Becoming Iqbal places emphasis on the latter which is another way of saying that what is really worth caring for is not what we are but what we tend to become. Action is the only means of strengthening the Ego and it is strengthened when it contrives to come to grips with the not-self, adjust itself to it and also make it subservient to its own ends. The not-self, it has been pointed out by Iqbal, is posited by the self as something necessary for its own unfolding and realization. Reality as a

constantly changing phenomenon and incessant action as a means of restructuring it according to one's own ideals are the corner-stone of Iqbal's vision of life.

It is a sheer travesty of facts to uphold that Iqbal's poetry is marked by a facile optimism, born of an uncritical acceptance of the inherited values and that this acceptance does not involve a process of exploration and judgment. His conception of God, for instance, is the end-product of a prolonged search for God's identity in the midst of the chaos of phenomena. It did not emerge as a full-blown rose, distinct and luminous in all its lineaments but had to be won through a hard and persistent struggle. It was conceived in the beginning as an indefinable Unity manifesting itself in the multitudinousness of the physical world — the archetype of all the lovely forms of nature. It bore upon itself the impress of the Plotinian hypostases according to which both the Nous and the soul are emanations of the one according to the principle of compenetration. Later on Iqbal came to think of God as the Eternal will that could be visualized either as an extension of the individual will or provided a typology for it. Still later he came to believe in some kind of anthropomorphic or personalized deity and entertained the possibility that the Absolute Ego had fragmented itself into finite monads. Iqbal's conception of Satan is significantly more original than that of Milton. For to him, unlike Milton, the creation of the universe and of man is not symptomatic of the Fall. Satan turned his back on the colourless existence in the Garden of Eden and the stasis of Eternity. The punishment inflicted upon Adam is, as a matter of fact, tantamount to the opportunity provided to him for the awakening and growth of self-consciousness. Only by being pitted against the sovereignty of God does Satan eventually walk into the region of his Egohood. The fall of man, instead of being it enables him to become aware of his own infinite potentialities. It is also significantly linked up with the vexed problem of moral choice. In presenting Satan

in a heroic mould Iqbal has made a slight deviation from Orthodoxy. This helps him bring Satan's motivations in conformity with his own peculiar notion of the Ego. In the ultimate analysis Iqbal's entire thinking is centered round the concept of freedom, the exercise of the individual volition and willed acceptance of the risks involved in it. The two are inseparable because in the absence of all the options lying before us and readily available in a particular human situation the concept of freedom is denuded of all its significance. Related to it is also Iqbal's conception of man not as a static entity but as a dynamic self — a centre round which is organized the whole potential of psychic energies — the latter being no more than concrete forms of consciousness. It is therefore not the essence but the lived particularity of human beings — their existential self — that absorbs Iqbal's attention most as poet. It is likewise both human consciousness and the objects to which it is directed — Sartre's *pour soi* and *en soi* — which are equally attractive for him. Man, like other Existents, is a part of *Da Sein*, and he also possesses the capacity of transcending the objective situation to which he is tethered. The self, according to Iqbal, though finite, is also boundless (cf. 'Javeed Se' in *Zarb-i-Kalim*,) and consciousness of the personal identity has to be integrated with the positional consciousness as it has also to be accommodated with the consciousness of the Absolute Ego. And Iqbal has very consistently pointed out in *javed Nama* that the bearing of this kind of witness is part of the Divine pattern.

Iqbal's notion of the finite Ego has both a philosophical ration-ale and a pragmatic relevance. He drew heavily both on Fichte and Rumi and Derived his cult of energy and the notion of the will to power from Nietzsche whom he continued to admire till the end of his days. It is only in the process of focalizing his energies that the finite Ego is able to put the impress of its personality on the entire universe. This undoubtedly involves a degree of hardness and tenacity on the part of

the Ego. Iqbal steers clear of the two extremes of transcendence and immanence and believes in a variety of existential monism. For him God is not merely a hypothetical Deity — remote, impersonal and inaccessible but very much personalized and He is conceived of not in terms of extensity but of intensity. The Creator and the Created, God and Man, are not only distinct but also discrete entities and the question of man's merge and assimilation into the Divine entity is quite irrelevant for Iqbal. Man has to fashion himself in the Divine image, and the human and the Divine, in spite of several points of contiguity, are still distinguishable from each other. And similarly the created universe, with all its heterogeneity and colour-fulness, is not a mere illusion but is possessed of a solid reality. In this connection we may also mention the rather novel and unorthodox idea, reiterated in a variety of contexts by Iqbal, that God is as much in search of man as man is in search of the Deity in the chaos of phenomena, and thus the two are intertwined by the firmest bonds of mutuality. In *Payam-i-Mashriq*, *Zubur-i-Ajam* and *Bal-i-Jibril* one comes across Iqbal indulging in this speculation which is identical with what Thomas Mann projects in his famous novel, *Joseph and his Brothers*. This is stressing indirectly the pivotal position of man in the cosmos, a way of persuading or inciting him to action and impressing upon him the necessity of self-assertion. The basic intuition with Iqbal is man's capacity for self-transformation as also accommodation to social and cosmic reality.

Like some of the great thinkers of the world Iqbal prizes intuition higher than reason because of the former's revelatory power and its being an immediate mode of cognition. This, however, does not mean any disparagement of reason as such because reason is used to test the validity of the truths grasped and vouchsafed by intuition. It may be well worth stressing here that Iqbal did not believe in the dichotomy of 'reason' and 'intuition' though he is strongly opposed to our regarding 'reason' as the exclusive or self-sufficing mode of the apprehension of Reality, Deductive reasoning, based as it is upon a closed syllogistic design, has its obvious limitations. Inductive reasoning, on the contrary, opens up the way for the classification of data, its verification and analysis, and the process of inference from the given to the possible or the probable. Intuition supplements the conclusions of empirical reasoning and may therefore be equated in the Wordsworthian sense, with 'higher reason'. One may go a step further and uphold that for Iqbal the dualism of reason and intuition is

subsumed into a higher unity of experience which may be designated as either mystical or existential. Like the religious existentialists Iqbal treats existence as prior to essence and the saving grace with him is that unlike some of his Western counterparts Iqbal does have an access to some fragments of faith, some stabilizing and cohesive centre of certitude which he 'shores against his ruins'. Man has not only been exalted and ennobled but almost defied in Iqbal's poetry; he partakes of Creativity with God; he even tries to catch him in his toils with the result that he ceases to be infinitesimal or inconsequential and acquires a kind of dignity and grace.

Related to these two concepts is another one which is hardly less crucial and significant. I refer here to the emphasis Iqbal places on Man's pivotal position in the universe and the dignity he invests him with. Back of it lies the notion of choice and the sense of responsibility with which he exercises that choice and which is called forth for actualizing his potentialities. The finite Ego is a portion or replica of the Absolute Ego, and if the latter is characterized by will, how could the finite Human Ego be denied this unique gift? The human actions performed in the world of contingency are indeed foreknown to God, but the fact of their being contained in God's instantaneous act of perception does not make them have a pre-determining power in the world of time. They are there as a fore-known but open possibility. By his acceptance of the burden of responsibility which was refused by the mountains, as it is parabolic-ally recorded in the Qur'an, man came to establish his superior claim as the apex of the created world. Man is regarded by Iqbal as the architect of his own destiny, as the one who does not sometime even hesitate to challenge the ways of Divinity and insists on himself being treated as His co-partner in the act of creation. And how else could man sustain this claim except in the light of this gift of choice? This exaltation of man in relation to a disciplined sense of responsibility links Iqbal with the -existentialists of our own day though he no-where makes a specific reference to them either in his prose or

poetry. This may be accounted for by the fact that this freedom of choice is hedged in by and operates within the framework of certain cherished religious values. The choice is doubtless there but its limitlessness is curtailed to the extent of making it harmonize with the Divine will and the furtherance of human social ends.

Iqbal is one of the two major poets of the Indian Renaissance — Tagore being another — and of the resurgence of Islam in India and elsewhere in Asia too. Not unlike Dante or Eliot or Tagore the most abiding and significant segment of his poetry has its source in a religious and metaphysical consciousness. There are a number of very fine poems like 'Love', and 'EROS and Death' in *Bang-i-Dara*, 'The Subjugation of Nature' and 'Loneliness' in *Payam-i-Mashriq* and 'Earth Spirit Welcomes Adam' in *Bal-i-Jibril* which are distinctively mythical in their resonance. It is Iqbal's exploration of his conception of God, it is the subtlety and ambiguity with which the figure of Satan is probed by him and it is the existential stance of poems like 'The Tulip of the Desert' and 'Separation' in *Bal-i-Jibril* which at once arrest the attention of the modern reader, and Iqbal is excitingly modern. Three distinct varieties of style — the rhetorical, the lyrical and the meditative — are characteristic of him at different phases of his poetic career. The rhetorical one which reflects a degree of heightened emotionality and relies on the elements of repetition, accumulation and paradox is the apt vehicle for the poetry of protest as in poems like 'Khizr-i-Rah' and 'Tulu'-i-Islam' and in some lyrics and poems in *Bal-i-Jibril* and *Zarb-i-Kalim* also. The lyrical style brings out both his imaginative exuberance and highly developed rhythmical sense - a predilection for the patterning of sounds, and most the shorter Persian poems in *Payam-i-Mashriq* as well as some Urdu poems exploit this particular idiom. No less characteristic of him is the meditative style where poetic experience becomes the focus of the process of cogitation and where thought and feelings are fused into an inextricable whole. In a way Iqbal's most

distinguished idiom is a variation of the Sublime where poetry tends to transcend itself and becomes co-extensive with 'prophecy' in the Blakean sense of the term. Iqbal is also a master of the ironic mode though not to the same extent as Ghalib or Omar Khayyam because his ironical thrusts are neither so tangential nor so oblique as theirs in spite of being employed with almost the same degree of subtlety and finesse. Iqbal's claims to greatness rest on his value-system being important in and for itself — and this value-system may be characterized as rational, vitalistic and forward-looking — as also on the fact that he has been able to provide for this value-system intellectual coherence, emotional depth and poetic force. In other words the value-system is involved in the structure of his poetry and the poetry is sustained by the value-system. He has also articulated through his poetry the anxiety and aspirations, the sense of fulfilment as well as the frustration of the contemporary man with a rare degree of honesty and perspicacity.

At the centre of Iqbal's thought is the emphasis on man's freedom, his potential for creativity and his unique privilege and capacity for carving out his own destiny against all odds. There are moments when Iqbal seems to be disturbed by his sense of man's alienation, his separation from the eternal, primordial state of being and when he seems to be frightened of man's sequestration from *Dasein*. But there are also moments of resilience when man becomes more important than other members of the created universe and when even God's sovereignty is defied and challenged. Moments of despair and anguish, though few and far between, are nevertheless to be taken into account for purposes of an objective assessment of his poetry. It is an altogether mistaken notion to suppose that Iqbal is a poet only of affirmation and commitment, of a mere facile optimism resting upon unquestioned assumptions of belief. Almost all his Persian and Urdu poems bear ample evidence to his questioning of some of the conventional sets of beliefs.

Iqbal's poetry, contrary to the wide-spread impression based upon ignorant prejudice or malicious and wilful distortion of facts, reaches certitude after passing through moments of scepticism, despair and anguish, and this is also borne out by entries in some of his most intimate letters written to Atiya Faizi in which he makes a number of startling revelations. For further corroboration one may keep in mind some of his crucial lyrics and poems like 'The Tulip of the Desert' in *Bal-i-Jibril*, 'Loneliness' in *Payam-i-Mashriq* and 'Elegy on Ross Masood' included in the posthumous collection of his poems called *Armughan-i-Hijaz*. One should be wary of calling Iqbal an existentialist poet because he does not accept all the premises on which this peculiar variety of speculation rests: there is no specific mention of either authenticity or I-thou relationship in his poems. But undoubtedly there is something in common between the existential pattern of experience and that of Iqbal. He is preoccupied with the process of change and mutability and the evolution of the self, and his involvement with matter is rather intriguing. He also did not make any rigid distinction between the religious and the secular. For him whatever is sterile,, uncreative and aggressively inhuman connotes the inauthentic and is equivalent to the possession of power without the corresponding vision.

Iqbal was an advocate for the discipline of religion and there are many things in common between the discipline of religious meditation and the discipline of poetry. He was sensitive to the demands of an expanding, physical universe around as —sensitive to its scientific and rational implications: he was no less sensitive to the emotive and spiritual impulses which it involved. We had better make a distinction — and the distinction is always a legitimate and fruitful one — between theological dogmas and rituals on the one hand and the psychic life at the deepest levels on the other. Poetry or religion and metaphysics are essentially concerned with the exploration of man and the universe. Both seem to be engaged with areas of thought and experience where boundaries are not fixed but fluid and are constantly in the process of being re-drawn. An escape from the pressure of contemporaneity was

sometimes sought in primitive modes of living, in the life of the Unconscious and in the building up of an alluring but impure archetype. For others the solution of this dilemma lay in the discovery of the timeless myths of religion which seemed to embody a kind of wisdom which transcended the premises of logical reasoning. Iqbal belongs to the latter category of thinkers and creative artists. Unlike the major Urdu poet Ghalib who is almost exclusively involved with the contingent reality, with all its heterogeneity, passion and exuberance, in Iqbal's poetry the accent falls on some kind of transcendence and this puts him in the hierarchy of other poets of a cosmic vision and of a universality of appeal. Here thought and feelings, contemplation and action, the inner and the outer cease to be distinct polarities but are merged into an 'otherness' which is truly inclusive of them all.

PSYCHE: A TRADITIONAL PERSPECTIVE

Naumana Umar

"The core of all stupidity is lack of self-knowledge"¹³⁶

Man is by nature a seeker of knowledge. He has a natural impulse to know reality for himself and to construct a comprehensible mental picture of universe as it appears to him through his experience. This impulse is manifest in his efforts to learn about his environment, the world in which he finds himself, his fellow creatures and his -own self. The last one i.e. his self, serves as the means through which he comes to know the first three. It is the immediate locus of reality for him in reference to which he identifies things as other than self and the conscious centre through which he experiences universe.

Man's quest for knowledge has led to the development of many branches of knowledge and several different sciences. The one that deals with the self of man is called Psychology (literally, the Science of Psyche). It is usually defined as a science of human behaviour studying the central phenomena of mental life as it is manifested in behaviour. By studying behaviour (may it be simple or complex, overt or covert, rational or irrational) in its origin, development and manifestation, the Psychologist ultimately aims to understand the nature of man; his desires, hopes, fears, abilities and limitations. Psychology tries to find the answer to the question, what is man? Taking man as a Psycho-physical complex, it goes on to study the Psychic part of his being.

¹³⁶ Gai Eaton, *King of the Castle*, Lahore, 1981.

"The shifting concept of the human psyche forms the core of the history of Psychology, the determinant of its present status and its future career. The result of the emergent evolution in this concept is that Psychology has been established as the scientific study of the motives and mechanisms of behaviour and their organization according to a naturalistic scheme. Certain phases and schools within the psychological domain are predominantly studies in motivation, others in mechanism of low or high degree and still others are focussed upon organization. But it is all one endeavour — to see the psyche soundly and to see it whole."¹³⁷

But it is not psychology alone which concerns itself with the self or the psyche of man. Man's urge to know his own self has been matched with the emphasis on self-knowledge by various religious traditions of the world:

"If the mind would fain ascend to the height of science, Let it's first and principal study be to know itself."

*Richard of St. Victor*¹³⁸

"He who knows others is wise,
He who knows himself is enlightened."

*Tao-Te-Ching, XXXIII*¹³⁹

"The Gnostics are ranged in hierarchy: the knower of his Lord and the knower of himself; the knower of himself is stronger in Gnosis than the knower of his Lord."

*Shaikh Ahmad al-Alawi*¹⁴⁰

¹³⁷ *Encyclopaedia of Behavioural Science*, see Psychology.

¹³⁸ Quoted in S. H. Nasr, *Islam and the Plight of Modern Man*, Longman, London, 1975, p. 9.

¹³⁹ *Ibid.*

¹⁴⁰ Martin Lings, *A Sufi Saint of the Twentieth Century*, rpt. Suhail Academy, Lahore, 1981, p. 204.

Whether it is a medieval Western contemplative or a Chinese sacred scripture or a Muslim sage, the message is essentially the same; the knower must know himself; man must gain self-knowledge. That man has an inbuilt urge to know himself can be seen in the present day Western craze for psychic experiences; transcendental meditation, yoga and occult sciences. In traditional sciences the self of man has been awarded a special place as a subject matter of study. Though it can be easily seen that the term "self" is used in a sense very different from Psychological terminology. These and many other radical differences between modern and traditional points of view has forced us to treat them differently. It should be clarified here what we mean by the term "tradition" or "traditional". This word is used in our treatise as in the writings of Rene Guenon, F. Schuon, Titus Burckhardt, Martin Lings, A. K. Coommaraswamy, S. H. Nasr and other traditional authors. This term also includes the wisdom (Philosophia Perennis) inherent in these religions, that is, the Truths or principles revealed to mankind from a Divine origin.¹⁴¹

In speaking of all religious traditions in one breath, we do not mean to imply that they are identical in their approach or symbolic form; no two interpretations of truth or facts can be the same. But all these traditions have one thing in common whether they be Indian, Far-Eastern, European or Islamic; they lay claim to a revealed wisdom as the source of their knowledge. It is that perennial wisdom which is at the heart of every religion; the Sophia Perennis of Western tradition, Sanatana Dharma of Hinduism and Al-Hikmat-e-Khalidah of Muslims. So when we speak of tradition or traditional sciences as opposed to modern sciences, we are referring to those cultures or inherited patterns which have religious doctrines as their basis. They are called sacred as compared to modern sciences which are formulated through human reason and discursive thought and are called secular. This difference has formulated a criterion which draws a line of demarcation and forces us to

¹⁴¹ For a detailed discussion on this topic see S. H. Nasr, *Know-ledge and the Sacred*, Edinburgh University Press, 1981, Ch. 2, p.65.

categorize these two perspectives as traditional and modern and makes it possible to treat all belonging to former category under one heading in spite of notable intertraditional variations and differences. The belief in one unifying principle underlying all existence is a characteristic shared by all sacred sciences. Just as modern theories of Psychology are efforts to see psyche as a whole, similarly traditional sciences have also presented doctrines which strive to describe psyche in totality. Hindu philosophy has given a full description of the structure and powers of psyche (or individual atman) as well as the faculties of mind. Psychological exercises are used as a way to God (Raja Yog) in Hindu esoterism. Muslim '*Ilm-un-Nafs*' bears standard texts on dynamics of human *Nafs* or soul as well as on workings of intellect and reason. Similarly other traditions such as Buddhism, Taoism, Christianity, etc give a prominent place to knowledge and discussion of man, his nature and his being. However one must be cautious in comparing the traditional knowledge with modern Psychology; the parallel between them is not exact, and one of the most important differences is suggested by the prefix psycho-. Historically Western psychology has directed itself to the study of the psyche or mind as a clinical entity, whereas traditional cultures have not categorized mind and matter, soul and body in the same way as did the Western Psychology. For these cultures psyche, mind, soul and spirit are levels of man's being or selfhood and he, himself is a part of the reality of the cosmos, or Being. Therefore in order to study any concept of psyche in traditional thought one must first understand their concept of man and his place in the universe, his relation to God or Supreme Being and components of his self. In traditional civilizations, cosmology, theology, astrology, esoterism, metaphysics and philosophy, all contribute towards making of a Psychology, and one must draw upon all of them in order to understand man and his psyche. "There is no science of the soul without metaphysics".

Traditional sciences mentioned above are a very enriching source of knowledge and anybody who aims to make a study of the inner self of man can not possibly ignore these. A true student of psychology must draw upon all sources available if he is to

comprehend his subject matter, and not merely restrict himself to academic texts.

In the past few decades, a new interest in the revival of traditional wisdom has become visible. It can be seen as a breaking away from the post-renaissance prejudice against all forms of sacred knowledge, which was a result of extreme scientism. This interest can be seen working behind the efforts to re-collect and represent the traditional doctrines in different sciences. Even in such areas as frontier physics, the latest research done by such prominent scientists as Erwin Schrodinger, Carl Friedrich Wigner and David Bohm marks a search for unity in the laws of nature, and shows the interest they are taking in oriental cosmological and metaphysical teachings. In recent years there have appeared a score of works seeking to relate modern physics to Oriental esoteric doctrines.

In quite another realm of science namely neurology and the study of the brain, there are again some leading scientists who refuse to reduce man to a complicated machine or behaviourally determined mechanism. The confirmation of the mind or consciousness independent of its material instrument which is the brain is yet another aspect of this search for the sacred, and evasion of that reductionism which is so characteristic of modern scientism. That is why all kinds of research is carried out in the fields of parapsychology to show the independence of mind from matter or even kirlian photography is developed, particularly in Russia. "This type of research indicates a religious urge towards the rediscovery of the sacred in a world dominated by the emphasis upon phenomena, despite the common error of failing to distinguish between the spirit and the psyche".

In Psychoanalysis and Psychotherapy one observes increasingly in recent years attempts to break away from the mold Freud and also Jung have cast upon this discipline and to rediscover traditional techniques of curing the ills of the soul. To quote S. H. Nasr, "It might appear on the surface that Jung is dealing with traditional Psychology whereas his treatment of traditional doctrines and symbols is a perversion of them so that he is, in a sense, more

misleading than Frued who is openly against all that tradition stands for."¹⁴² Among the recent works which deal with current search for the discovery quite a few could be enumerated but that would be beyond the scope of this study.

In ancient societies and in traditional sciences, man's inner self was mainly the concern of religious, specially esoteric, teachings. Now it has become a field of interest for Psychology. Man has traveled a long way from mysticism to psychoanalysis. Whether he has gained or lost in terms of self-knowledge is yet to be seen.

According to Jung man is an enigma to himself. It is the most important characteristic of his species that he cannot know himself and therefore remains a mystery to himself. "Our psyche which is primarily responsible for all the historical changes wrought by the hand of man on the face of this planet, remains an insoluble puzzle and an incomprehensible wonder, an object of abiding perplexity — there seems to be a curious hesitancy in regard to psyche and psycho-logy. Not only is it the youngest of the empirical sciences, but it has great difficulty in getting anywhere near it's proper object".

The developments which have taken place in the field of psychology during past few decades have contributed a great deal towards establishing it as a science of human behaviour and mind (as it is manifested in behaviour). The most sophisticated and advanced laboratory experiments confirm its standing as a science whereas emergence of new personality theories and systems of therapy which admit and make use of a wide variety of psychological phenomena (imagery, contemplation etc) give proof that psychology is exploring new and wider areas of behaviour. However it is still far from possessing a complete knowledge of human psyche. What it offers are, at the best, plausible explanations for psychological phenomena, dealing with psychological functions separately, so that no whole-some picture appears.

There are still many unresolved issues within the domain of Psychology. For example the explanation or location of higher mental processes is far

¹⁴² *Ibid.*, p. 128, n. 69.

from conclusive. The related question about the existence of mind, regarding which different opinions exist, Jung states that structure and physiology of the brain furnish no explanation of the psychic process. The psyche has a peculiar nature which can not be reduced to anything else. As Wilder Penfield, one of the most notable physiologists of our times, points out; by applying electrodes to the memory and motor regions of the cerebral cortex of patients undergoing brain surgery, the surgeon can make them remember past events and move their bodily members, but there is no brain spot which if electrically stimulated will induce the patients to believe or to decide.¹⁴³

Phenomena left unexplained by psychology and issues left unresolved have recently attracted the attention of contemporary psychologists and thinkers and new theories have emerged which, breaking away from the restrictive shackles of empirical Psychology, criticize the reductionism of modern psychology. Also interest in the traditional psychological disciplines is another factor that betrays the dissatisfaction at present being felt with the inadequacy of psychology to explain different dimensions of man's inner self. Whether these new trends serve to dispel the dilemma is far from certain. They nevertheless point towards new dimensions of thought as well as raise a few relevant questions such as, whether the existing tools of psychology are inadequate to deal with the area it claims to study? Should psychology as a science restrict itself to the quantifiable and observable phenomenon only? Does it need to modify its basic approach and its existing view of man? Whether an alternative approach method or knowledge exists which can explain the mystery of human psyche?

As a student of psychology, these questions have troubled me from time to time. It was primarily in search of answers to these questions that I came across some extremely enlightening and profound writings by the authors mentioned earlier in these pages which ultimately led to the idea of this research. Besides providing answers

¹⁴³ Wilder Penfield, *The Mystery of the Mind: A Critical Study of Consciousness and the Human Brain*, Princeton University Press, 1975, pp. 81, 79, 80, 48. See also Sir John Eccles' Preface to Eric Polten, *Critique of the Psycho-Physical Identity Theory*, (The Hague: Mouton, 1973).

to above questions, they seemed to contain a fresh and promising approach towards the problematic study of human psyche. These writings discussed modern as well as traditional concepts and objectively analyzed both of them. Through them I was acquainted with the resurgence of traditional sciences that is taking place in West today and came to realize how this could help to broaden the horizons of psychology and enrich the study of man.

After studying them, I was motivated to undertake a comparative study of the concept of psyche in various traditions and in modern thought.

Today in the West, as well as in the Islamic world it self, there is an ever greater need to study both the principles and manifestations of Islam from its own authentic point of view, and in a manner comprehensible to contemporary man. Moreover this needs to be achieved by using methods of analysis and description which are at once logical and in conformity with the Islamic perspective. This type of writing which can 'translate' Islamic teachings into a con-temporary idiom without betraying or "psychologizing", it, is very important, not only for non-Muslims who wish to learn about Islam but most of all for young Muslims who are now mainly products of modern educational system and seem to have lost faith in the effectiveness or profoundness of their religious doctrines in face of the scientific superiority of the West. They need to be acquainted with their intellectual heritage which contains a profound wisdom. The aforementioned writings seemed to fulfil the above function. Present work is another effort in this direction.

The present study is a humble attempt to conduct an objective exploration of traditional, specially Islamic, sciences and to bring out the concept of psyche contained therein. Although it refers to other traditions briefly, main emphasis of this study is on the Islamic perspective.

Before reviewing the concept of psyche as it prevailed in various traditions and philosophies, it seems suitable to explain briefly, the origin and uses of this word. We find almost in every language that the entity, which by dwelling in the body imparts life to it, is called by some word indicating air, breath or wind. Thus in

the poems of Homer, that which survives the dissolution of a person's body was denoted by the term psyche, which is the Greek for breath. Similarly in Latin, anima and animus come from a Greek word which means wind, while spiritus is from spirare, to breath. Sansikrat Atma and Prana (vital breath) signify the same meaning. The Arabic terms *Nafs* (نفس) and *Ruh* (روح) derive from roots which mean 'to breath', 'to blow-into' and 'blowing of wind or breeze." This use of the same word (breath or wind) in many languages, to denote an entity within man is extremely significant. It points towards a concept which was held almost universally by all ancient civilizations. They believed in the existence of an invisible source of life inside man, which sustained and moved him. The material function that the breath performed in keeping the body alive was frequently taken to consist of in imparting to the body the power of movement. Hence to soul was attributed the ability to move itself. "Self motion is the very idea and essence of the soul" (Plato) "Anything that has a soul moves itself" (Aristotle) Hence we see here that this entity was named soul.

In Greek mythology, the personification of human soul occurs in the figure of psyche, represented as a beautiful girl who falls in love with cupid and wanders over the earth in search of him. After many hardships and completion of difficult tasks, she is made immortal and reunited with her Iover.¹⁴⁴ "The mythological story of psyche as told by Roman writer Apubius in the Golden Ass, is interpreted as an allegory of the destiny of human soul, which eventually finds complete happiness by purification through trouble and sorrow."¹⁴⁵

All the symbolic representations of psyche signify one thing; that soul or psyche is seen as something which is non-corporeal and subtle and which has the power to reach levels unapproachable for material bodies. This concept will be further discussed in the concluding part of our study. For the present, we are only presenting the ideas and theories from various sources. Their interpretation will

¹⁴⁴ Angell, *History of Psychology*, Macmillan, London, 1953.

¹⁴⁵ "Psyche," *Encyclopaedia Britannica*.

be taken up later.

Greek Thought

An historical approach to the human psyche, necessitates at the outset, a glance at the great tradition handed down by Greek thought; not only because this word is derived from Greek language and is used extensively in their mythology but also because this tradition has profoundly influenced the modern thought and conceptions specially in the realm of human psyche. Nevertheless, the limits of our study allow only a brief overview of the ideas attributed to the most outstanding figures of Greek thought.

Greek philosophy falls into three periods. The first may be described as pre-Socratic; the second period as ranging from Sophists to Aristotle, and the third as post-Aristotelian. The second period which includes Socrates and Plato, is the maturity and actual zenith of Greek thought. Very little authentic material is available about the pre-Socratic period though it is believed that the thinkers preceding the ancient Greek philosopher pythagorus were heirs to a revealed religion and their philosophical teachings proceeded from the doctrines of this religion. Whatever material is available can not be trusted on the grounds that it has been re-interpreted according to modern conceptions and thus amounts to distortions. So we will confine our study to the middle period.

Before Socrates, we encounter such schools as atomists who held that soul consists of spherical atoms spread through the body which disperse at death and the Sophists, whose skepticism denied the possibility of knowing about the knowing process itself. The Sophists found in human consciousness a meaningless flow of experiences behind which neither outer reality nor any stable inner principle could be found. In this period appeared Socrates "whose critical method erected the framework within which most subsequent philosophy and psychology develop" ¹⁴⁶Most of the Socratic ideas

¹⁴⁶ Gardner Murphy, *A Historical Introduction to Modern Psycho-logy*, R. K. P., London, 1967, p. 7.

and discourses were in the form of talks and discussions and were later on elaborated and put forward by his illustrious pupil, Plato. Plato is called the "mouth piece" of Socrates. So we will pass on to Platonian ideas.

Plato: Plato is perhaps best known for his theory of emanation which holds that all reality emanated from God. This theory is also applied to human soul. According to his emanationistic theory of man's creation, the primordial One (God) which is the Absolute Good and which rational knowledge cannot reach produces by emanation an image of Itself which contemplates it. This image, the Universal Spirit (Nous), contains the ideas or the archetypes. The Spirit produces the soul (Psyche) or more precisely the animistic or subtle state, which produces in its turn, matter (Soma), the "in-existent"

Thus Platonian system presents a hierarchical order of reality which is based on Divine Principle and goes from principle to matter through intermediate levels of universal spirit and universal soul (psyche); the former corresponds to the celestial realm, the latter to the intermediate one between Heaven and Earth. This intermediate realm is known as the *psychic* realm.¹⁴⁷ This order is reflected in man as well, except that in him the spirit is the deepest and most inner core of the self, and the soul veils it and is in turn veiled by the matter, which is the most outer layer of man's self. It follows that man is composed of spirit (or Intellect), soul, and body, and is both part of the cosmos which is the object of his knowledge and, in view of his spiritual nature, appears as a small cosmos within the larger one, of which he is the counterpart, like a reflected image.

Among the components of man's inner self, spirit in which Intellect dwells is similar to universal spirit which moves the cosmos. It is simple and indivisible. It is attributed with indestructibility since destruction means the sundering of parts and it has no parts; it is one, like the primordial One, of whom it is a reflection.

Spirit is identical with Intellect which is defined as the cognitive pole of universal existence and which radiates from God as light shines forth from

¹⁴⁷ For a contemporary exposition of this view of the universe see, Huston Smith, *Forgotten Truth*, rpt. Suhail Academy, Lahore, 1981, Ch. 3, Ch. 4.

the sun. In the human beings this Intellect is the presence of God. This Intellect is called reason by some interpreters of Plato and spirit is called the rational part of the soul which is immortal. These terms are misleading since reason signifies human intelligence whereas Intellect (Nous) according to Plato emanates directly from Divine wisdom and is supra-rational. Soul is not divided into parts as such. The Intellect, reason, sensor knowledge, etc are all levels of his being or self-hood and signify the functions or type of knowledge possible at each level.

Since Intellect is the essential part of man's spirit, the knowledge which is available to man through intellect is called innate by Plato. But still soul has to "recapture" that knowledge through the means of recollection. Plato connects the doctrine of the immortality of the Spirit with the theory of ideas by means of the doctrines of recollection and transmigration. According to the former doctrine all knowledge is recollection of what was experienced by the soul in its original state of unity with Spirit. (By knowledge, Plato does not mean sensory knowledge but knowledge of one's essence or reality, that is, divine knowledge)

But this does not mean that divine knowledge in any way excludes knowledge of outward phenomena which reaches us *through senses*. *The forms which come to us empirically from without*, correspond to the immutable prototypes or possibilities contained in the Intellect which constitute the real content of all knowledge. Hence the prototypes of the natural universe in all its diversity of forms are present in the domain of spirit; these *possibilities or prototypes are called archetypes* by Plato. It is also defined *as the ideas of things*. These archetypes are to be found above the level of reason and whatever reason can discern regarding them is never more than a restricted aspect of what they really are in them-selves.

Here, we would like to recall Plato's famous image of the cave which explains the gist of his theory in a most clear-cut manner. Plato asks us to imagine a large subterranean cave in which are prisoners who have been confined there ever since their child-hood. They are made to sit in a long row facing one of the walls of the cave and they are chained to their seats in such

a way that they cannot turn their heads, being only able to look straight in front of *them*. *A fire raised up behind them, casts its light on to the wall and between them and the fire puppets are being carried, made in the image of all kinds of living and lifeless earthly creatures. But not being able to turn their heads, the prisoners can only see the shadows which the puppets cast on to the wall in front of them. Then, Plato asks us to imagine that one of the prisoners escapes from his chains. First he is able to look around and see the puppets themselves. Then he escapes from the cave and goes up to the outside world where are to be seen all those things in whose likeness the puppets were fashioned.*

The cave is this world and the prisoners are mortals during their earthly life.¹⁴⁸ The outside world is the next world which contains the spiritual realities and which the things in this world are symbols. It is easy to see now what Plato means by archetypes and what does true knowledge signify. As mentioned earlier, Plato held that before entering the body soul lived in the world of archetypes. But after be-coming detached from Intellect and becoming attached to material body (corpus) it tends to forget these archetypes. Since all things in sensible world are made in the likeness of these archetypes or primordial images, they remind the soul of its essential abode. From this point of view all knowledge is

REMINISCENCE (ζ);

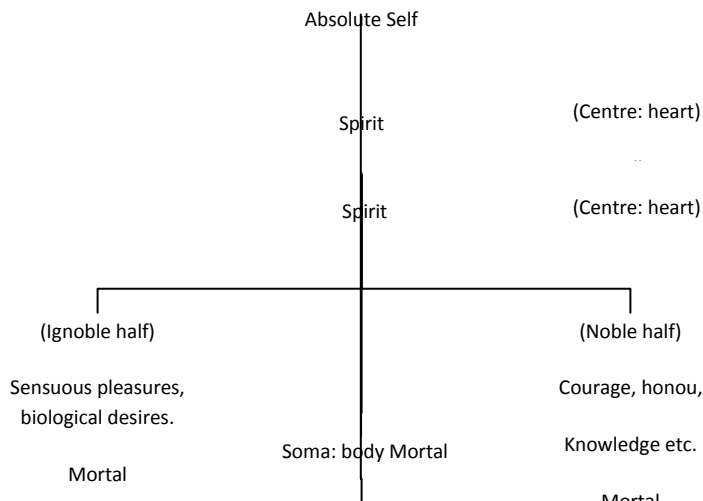
Through the union of soul (which is subtle) with body, sense faculties of man came into being. The so-called parts of the soul are thus explained. The soul or psyche is the seat of reason, which is its exclusive faculty and could be a synonym for human intelligence. This intelligence is supposed to be the reflection of the Intellect at human level, it is the trunk of the tree through which the sap (intellect) reaches from roots (spirit) to the rest of the tree. Thus rational soul which also contains higher mental processes (thinking, imagination, memory, will etc) is the higher extremity of the soul, that which opens towards Intellect or Spirit, whereas sense faculties and biological desires as well as elementary mental processes are the lower extremity of soul, that which is near to body or gross matter.

¹⁴⁸ Book VII of *Plato's Republic*, or, more correctly, *Plato's State*., Our interpretation is based on Martin Lings's exposition of the image. See his *Ancient Beliefs and Modern Superstitions*, London, 1980, pp. 46-48.

The centre of the Intellect is heart, (not the physical heart, but the inner most core or centre of man's self), that of reason is head, of lower faculties, the lower part of man's body.

The will of man is rooted in the Divine Self. Among the manifest powers of the soul, is its capacity to deal with abstract relation-ships. Hence the power of discursive thought in the-soul. Plato sees soul or psyche as a mediator between the world of senses and the world of the archetypes. But it is not possible for reason or imagination to discern them fully except in the return of the soul into the undivided unity of the spirit — only then a certain reflection of the eternal possibilities in the formal consciousness takes place. The contents of the Intellect, which is the 'faculty' of the Spirit, thus suddenly 'congeal' in the forms of symbols, in reason and in imagination"

The higher part of the soul is called by Plato 'the noble half' and the lower part 'ignoble half,' or the appetitive and sensuous soul, and such emotions as generosity, honour, courage-and love, are found in the noble half



Plato believed that man gets satisfaction not only from the fulfilment of biological needs and sensuous pleasure but also from other activities such as pursuit of knowledge, serving others, taking up courageous tasks, and doing honourable deeds, procuring social, political and public respect and fame as

well as getting mental satisfaction from study of ideas or practice of fine arts. All these activities provide a higher form of pleasure comparing to which sensuous pleasure is very superficial. But the fact remains that they are at best satisfaction of the higher part of psyche and do not relate to spiritual or intellectual centre of man's self. It would be interesting to compare this to modern concepts of "fulfilment of inner self", "intellectual satisfaction" "higher mental activities" etc. Such phrases are used in modern terms They are thought to denote the other end from sensuous pleasures, the latter being called superficial. In the light of Platonian: theory it can be easily discerned as belonging to the noble half of the soul, still rise no higher than the psyche. The Spirit, which is the innermost core of our being lies deeper and higher above such functions and can only be reached through intuition.

To Plato, harmonious soul is that in which all parts of the soul i.e. appetitive, sensuous and rational, work harmoniously, each discharging its own function the rational part commanding, and the appetitive and sensuous parts obeying its commands. A balanced soul is thus maintained. These concepts are then related to ethics and Soul's progress is explained in terms of achievement of the "highest good"

It is notable that what Plato calls soul's reminiscence of the world of archetypes is not readily available to the soul but it has to be recollected if the soul is to keep itself in touch with its origin This could bear a similarity to the concept of collective unconscious in Jung's theories but the two differ in many important respect and, furthermore, it is extremely naive to draw superficial comparisons between ancient thought and psychological theories since the latter are totally alienated from the former and to compare them amounts sometimes to distortion of the traditional concepts, thus leading to grave miscomprehensions.

Aristotle. Aristotle, the great genius of Greek tradition is the man whose ideas have influenced and contributed greatly towards the development of modern Psychology. His works "De anima" and para naturalia deal with the system of knowledge for the study of soul, definition of the nature of psyche and its activities and

description and interpretation of human experience and behaviour in concrete terms.

He differs from his great master on account of the gulf he had placed between soul and body. At the same time, he also disagreed with the mechanical theories of Democritus. He aimed to discover the intimate relation of mental and physical processes yet to define the mental so as to show its differences from the physical. His solution lay in terms of a conception of "Essence" and "Substance" of things or in "form" and "matter". These two are always together but it is only through substance that the essence of thing is actualized. The soul is the essence or form of the body, as well as the principle of its motion.

Aristotle declares five different ways in which things are said to live:

1. faculty of absorbing food i.e. nutrition and reproduction,
2. locomotion,
3. sensory perception,
4. desire,
5. Intellect.

The functions of plants are assimilation, growth and reproduction, those of lower animals are, in addition to these, sensitivity, appetite and locomotion, while those of man are all these together with his specific function i.e. reason. As the human soul combines within itself the function of all animate existence it is a veritable microcosm. But the terms in which he can truly be called a microcosm is that the higher planes of being are also reflected in him i.e. supreme or ultimate reality. This concept will be discussed later on.

According to Aristotle, the world process is a continuous elevation of being into higher and higher levels, and thus reality exhibits a continuous scale of being. In the higher scale the form predominates, in the lower, matter outweighs form. At the bottom is solid matter devoid of soul, -at the highest level, pure essence devoid of matter. In between these two exist different levels of being graded in order of subtlety. The highest which

comes at the top of the scale, the Absolute Essence is called by Aristotle, God. This is the immanent self, the levels which are near to the self are subtler than those away from the self. Matter which is farthest from pure Essence is gross. This could be illustrated by the example of water. It evaporates and turns from tangible, into subtle and a time comes when it is no more there but it is said to exist. What is it that exists? Some levels of existence are bound to space and time both, (matter), some to space alone, some to time alone (psychic phenomena). But God or Infinite is above both and it alone is Absolutely real. The psychic level of being is nearer to him than matter since it is subtler but that does not mean it can reach Him.

In the lower order, scale of being proceeds from animals to man. The human organism of course contains the principles of all lower organism. Man nourishes himself, grows and procreate his kind, moves about and is endowed with sense-perception. But he has, in addition to it his own special function i.e. reason and Intellect; former being the reflection of the latter at the human level. Within human consciousness there are lower and higher grades. These stages of consciousness can be called "faculties" but Aristotle is against the division of soul in parts; it is a simple, indivisible thing having no parts. These faculties are different aspects of the activity of one and the same being. The lowest faculty is sense-perception. It takes place when the object stamps its form upon the soul i.e. when matter is perceived in sense of its qualities which are form of the matter. Next in the scale above the senses comes the common sense. It must not be mistaken with the current meaning of the term in everyday language. It means the central sensation-ganglion in which isolated sensations meet, are combined, and form a unity of experience. This is what compares and contrasts various sensation specially those coming from different sense-organs and turns them from a blind medley of phantasms into definite experience.

Above the common sense is the faculty of imagination. By this Aristotle does not mean the creative imagination of the artist but the power, which every one possesses, of forming mental images and

pictures. This is due to the excitation in the sense-organ continuing after the object has ceased to affect it.

The next faculty is memory. This is same as imagination except that there is combined with the image a recognition of it as a copy of a past-sense-impression.

Recollection, again is 'higher than memory. Memory images drift purposelessly through the mind whereas recollection is the deliberate evoking of memory images:

From recollection, we pass to the specifically human faculty of reason. Reason itself has two grades. The lower is called passive reason, the higher active reason. The mind has power of thought before it actually thinks. This latent capacity is passive reason. The positive activity of thought itself is active reason.

Now the sum of the faculties in general we call the soul. And the soul, we saw, is simply the organization or form, of the body. It is to body what sight is to eye. Soul as form of body is inseparable from it. You can not have a soul without a body. The connection, of soul and body is not mechanical but organic. Soul is not a thing which you can put into a body and then take out just as you pour water in a bowl and take it out; it is a function and the function ceases when the body ceases to be. It is clear that Aristotle is talking about the psyche here. However there is one aspect of man's being which according to Aristotle does not perish with the body i.e. active reason or the Intellect. God being absolute Intellect, man's reason comes from Him and returns to Him after the body ceases to function. Intellect which is universal and capable of perceiving Truth, has a counterpart in reason which is individual and discursive. In reason concepts are potentially present, in Intellect they are actualized. All lower functions and whatever arises in consequence being connected with the body, cease with the death of the body, only Intellect remains. It alone is imperishable and immortal since it emanates from Divine Qualities and their reflection in human realm. Thus it implies that Aristotle believes in the immortality of essential part of man's soul that which can be called spirit in other words.

Thus it can be concluded that Aristotle defines the soul as "the first entelechy (or perfection) of a natural organized body, possessing the capacity of life"¹⁴⁹

But he also believes in the human soul which corresponds to Intellect or Absolute Being. His great commentator and systematizer, Alexander of Aphrodisias explicitly holds this view; that human mind achieves immortality by contemplating eternal objects. But it loses individual form or consciousness of its individuality. There is no "I" separate from the eternal self, but it exists in pure Being just as a drop of water exists in an ocean. The individual spirit is reabsorbed in the Essence i.e. in God.

Among the later Greek philosophers the stoics, more or less adhered to the immanent and immortal character of human soul; it comes from the Divine fire and returns to Him. But they have not treated the structure of soul in detail. However one finds a revival of Platonian emanationism in somewhat different form, in the neoplatonists. Among this school Plotinus based his theory upon the principle of unity. According to him, God is absolutely One; He is the first principle of all being or universe and there is no duality in this Oneness. At the same time, he holds that world emanates from this Divine Principle, yet does not exist apart from Him. This apparent contradiction in terms can be explained if we consider it in depth. According to all traditional cosmological doctrines, ultimate reality is nothing other than the Divine Principle, the "Self" which is Infinite, Absolute and Immanent. It is the Supreme Essence which is beyond Being, and there is no duality in it; it is One. Since it is the absolute Reality, all other reality is relative to it. From this supreme Reality emanates all existence just as the light emanates from the sun yet it can not exist apart from the sun. All reality is manifestation of the "Self". This manifestation ranges in hierarchical order from matter to the self.

¹⁴⁹ W. T. Stace, *A Critical History of Greek Philosophy*, London, 1969. Also M. M. Sharif, *A History of Muslim Philosophy*, Vol. 1, Wiesbaden, 1966, Ch. 1.

Emanating from One, it goes down to universal spirit (where archetypes are present) to psychic realm which though being sensible is nevertheless subtle and then finally to the matter. In Hinduism this order is described as following: Universal/non-manifested/manifested/subtle/gross — It is this same concept which Plotinus explains.

HINDUISM

Hindu philosophy and Hindu doctrines impart information about the measurable structure and power of the Psyche, analyze the intellectual faculties of man and operations of his mind, classify the senses and study the processes by which experiences are apprehended, assimilated, interpreted and comprehended.

Among the six famous systems of Hindu thought, from which mainstreams of Hindu philosophy have emerged and developed, Vedanta and Sankya contain elaborate analysis of the psyche. It is from these analyses that a complete system of psychology has taken shape.

Hindu Psychology is not an independent science in itself but a branch of sacred knowledge which aims to understand one level of existence i.e. man's self and to apply that understanding to the

spiritual journey towards Brahma. The knowledge of psyche is used as a means of self-knowledge which is the first step towards realization of truth (Nirvana) or unity with the Self (Yog). Due to the spiritual aims of Hindu psychology and its metaphysical origin it relates man's psyche to the universal principle or spirit (Atma). For as Dr. Zimmer points out "The great theme of all Vedantic teaching is the identity of the individual life-m Monad with Brahman which is the nature of pure consciousness or spirituality".¹⁵⁰

The Hindu concept of man rests on the basic thesis that he is a layered being. The principal layers can be reduced to four. First and most obviously man has a body. Next comes that portion of his mind and experience that he is aware of i.e. his conscious personality. Underlying these two is a third region of the realm of his individual subconscious. This has been built up out of his private past experiences down through the years. Though it is hidden to his normal awareness, it shapes his life in profound ways. These three parts of man are paralleled in contemporary Western view though with a different approach. The distinctive point in Hindu hypothesis is its postulation of a fourth part. Underlying the other three, more unperceived by the conscious mind than even its private subconscious though as vitally related to it, stands Being itself, Infinite Self, Atma or Brahma. Brahma is said to be in the vital centre of the human being, which is the heart. "The Self, the universal Being dwells in the individual and gives him life. It transcends both the gross organism of his body and the subtle organism of his psyche; it is the life-force that enables man to act. — It is the nucleus of the phenomenal man".¹⁵¹

Ontological Placement of Psyche

¹⁵⁰ VEDANTASARA 27 — Quoted by Dr. Zimmer in *Philosophies of India*, Routledge & Kegan Paul London, 1952, page 417.

¹⁵¹ *Ibid.*, p. 409.

According to Hindu doctrines hierarchy of Being can be de-scribed in following manner: First of all there is the "Self", the transcendent and permanent principle of which all manifested being (the human being for example) is only a transient and contingent modification. It is never individualized, since it is eternal and immutable (Pure Being). It is the supreme Being (unmanifested) underlying all creation. It is identical with Atma (universal spirit) and Brahman (Divine Being) since Atma and Brahma permeate all things. "The Self develops its manifold possibilities, indefinitely in their multitude through a multiplicity of modalities of realization, amounting, for the integral being, to so many different states, of

which states one alone; limited by the special conditions of existence which define it, constitutes the portion or rather the particular determination of that being which is called human individuality".¹⁵²

In order to understand this hierarchy, let's observe the following chart drawn by Guenon:

Universal	(The Unmanifested)	
	(Formless Manifestation)	
Individual	(Formal Manifestation)	Subtle state
		Gross state

The gross state is the corporeal and sensible world, the tangible, visible level of material existence whereas the subtle state is the inner world of forms, extra-corporeal modalities of the human being such as thoughts,

¹⁵² "Man and his Becoming according to Vedanta" Rene Guenon, Luzac & Co. 1945, Lodon, page 29.

ideas, imagination, experiences, emotions etc. These two are also called gross body (Sthula Sarira) and subtle body (Suk-Sana Sarira) respectively.

The Brahma when it dwells in individuality is called purusha. Purusha is represented as light (Jyotis) because light symbolizes knowledge. It is written in the Upanished that in the vital centre where purusha dwells the sun shines not, nor the moon, nor the stars; all shines by the radiance of purusha. It is by its splendour that this whole (the integral individuality regarded as "microcosm") is illuminated".¹⁵³

In order that manifestation may be produced, purusha must enter into correlation with another principle. The correlative of purusha is prakriti, the undifferentiated primordial substance. (The purusha and prakriti may be compared to yin and yang of Toaism). Purusha is active, whereas prakriti is passive and represented as feminine. It is the union of these complementary principles which produces the integral development of the human individual state. Purusha and prakriti may be called Essence and Substance in English vocabulary.

The meeting of these two principles (one vertical, pertaining to Brahma or Heaven and other horizontal representing the realm of substance) is what brings forth the manifestation (called *Zuhur* in Muslim terminology). As described above formless manifestation universal principle or "self" is unmanifested; it is beyond Being. Being is a veil of the "self" or Brahman. This veil is Maya — prakriti also pertains to Maya — It possesses or comprises of the three gunas, the three cosmic qualities or tendencies: the upward (Sattva), the expansive (rajas) and the downward (tamas). The gunas are in perfect equilibrium in the state of primordial indifferentiation: every manifestation or modification of substance represents a rupture of this equilibrium, and beings participate in the gunas in varying degrees and proportions. These gunas are therefore not state but conditions of Universal Existence to which all manifested beings are subject.

¹⁵³ *Ibid.*, p.44.

Sattva is conformity to the pure essence of Being (Sat), which is identified with knowledge and represented as an up-ward tendency; rajas is the expansive tendency in accordance with which the being develops itself in a given state at a certain level of existence, and lastly there is tamas, which is identified with obscurity and ignorance, and represented as a downward tendency. These tendencies when seen as manifested in man can be described as below: the quality of "obscurity" or ignorance (tamas) is prominent when man is attracted towards his animal nature and confines himself to the fulfilment of his biological desires which he sees as an end in-itself. This amounts to absurdity because it is cut off from the metaphysical principle and unintelligible and as F. Schuon writes "the unfolding of human events, appears as a struggle against absurdity; the intelligible is affirmed as a contrast to the unintelligible". Where-as sattva is perfectly intelligible since pertaining to Divine knowledge and when man overcomes the play of lower modalities (tamas) and aspires to higher modalities (sattva), he is, as it were, relating to an upward dimension.

Rajas, or expansive tendency explains man's efforts to achieve knowledge of the phenomenal world (which is on the same existential level as man) and develop the potentialities of his self on purely psychic level, not rising above maya and thus this tendency is horizontal whereas Sattva is vertical relating man to the upward, higher levels of reality. Coming back to the realm of universal manifestation, among the manifestations of Atma, is the higher Intellect (Buddhi). It is also called Mahat or the "great principle". The seat of this Intellect is also called Brahma-pura, seat of Brahman. That is why heart is considered as the centre of life. The brain is no more than an instrument of the mental faculty, that is, of thought in its reflective and discursive mode. Guenon presents a symbolism in his book, according to which heart corresponds to the sun and the brain to the moon.¹⁵⁴ This Buddhi is equivalent to AI-'Aql of Arabic. "If we view the "Self" (Atma) as the spiritual sun which shines at the centre of the entire being, Buddhi will be the ray directly emanating from this sun and illuminating human state".¹⁵⁵ That which dwells in the vital centre is either from the physical point

¹⁵⁴ *Ibid.* p. 39.

¹⁵⁵ *Ibid.*, p. 66.

of view and Jivatma (living soul) from the psychic point of view. The Jivatma is only a reflection of the Atma in the individual human state. This reflection could not exist without the mediation of Buddhi. This latter when intersecting with human state produces the individual consciousness (ahankara) which is inherent in Jivatma, or "living soul". This consciousness gives rise to the notion of the "ego" since its proper function is to establish the individual conviction (abhimana), that is to say, precisely, the notion of that "I am" which concerns itself with external and internal objects. The sum total of these objects is described by the term "I dam" (this) as opposed to 'aham' or "me".

As shown in the chart the subtle state precedes gross state thus it follows that the psychic sphere is above the corporeal sphere and psyche is placed at a higher level than body. It is closer to the centre of being, the Atma, and it is an intermediary between corporeal state of man and his transcendent, spiritual self. What has been said so far can be summarized as follows. The supreme principle or ultimate Reality that is the core of all being is universal and Unmanifested "Self". It is identical with Brahma and Atma, which is "the highest, deepest, final, transcendent" power or vital force of life. It is universal and formless. When it is reflected in individuality, that is, in individual beings (human, animal, other creatures, etc) it becomes manifested and acquires form. Human state is one of the many individual states. It is formal and its forms are of two types; subtle and gross. Subtle state contains all that is termed or regarded as psyche, (mental faculties, ego functions, senses, thoughts, feelings, etc) and gross state is made of matter hence the body of man belongs to this state.

These levels are described in Vedanta as successive vehicles or envelopes. Purusha or Atma, manifesting itself as Jivatma in the living form of the individual being, is regarded as clothing itself in a series of "envelopes (koshas). The first envelope (ananda mayakosha "maya" signifying "made of" or "consisting of") is none other than the Atma, the principal and undifferentiated state itself. It is formless. The second envelope (vijnanamaya-kosha) is formed by the directly reflected light of integral and universal knowledge (jnana). It is composed of five elementary essences (tanmatras) conceivable but not perceivable in their subtle state; and it arises

out of the conjunction of the higher Intellect (Buddhi) with the principal faculties of perception proceeding from five tanmatras. The external development of these constitutes the five senses of the corporeal individuality. The third envelope, (manomaya-kosha) in which, constituents of the preceding envelopes are linked with the inward sense (manas — मनः), especially brings into play the mental consciousness or thinking faculty. This faculty is a result of the reflection of Buddhi or higher Intellect in human individual form. The 'fourth envelope (prana maya-kosha) comprises the faculties which proceed from the "vital breath" (prana) that is to say the five vayus (modalities of this prana) as well as the faculties of action and, sensation. The combination of these last envelopes (vitnana maya, manomaya and pranamaya) constitute the subtle form' as opposed to the gross or corporeal form (sthula -- sharira).

Structure of the Psyche

According to the analysis of the psyche rendered by Sankhya and accepted by the disciplines of yoga, man is active (kartar) though the five "organs of action" and receptive (bhoktar through the five "organs of perception". They are known as the "faculties working outward" (bahyendnya) and function as doors or gates (outlets and inlets) while inward sense [Manas which includes, according to certain texts, consciousness (ahankara) and Intellect (Buddhi) as well] stand as door keeper. The five instruments of sensation are: The ears or hearing (shrotra) the skin or touch (twach) the eyes or sight (chakshus) the tongue or taste (vasana) the nose or smell (ghrana) being enumerated thus in the order of development of the senses. The five instruments of action are: the organs of excretion (payu) the generative organs (upastha) the hands (patri) the feet (pada) and lastly the voice or organ of speech (vach). Manas must be regarded as the eleventh, fulfilling the double function of service both towards perception and towards action.

The Sankhya compares the body to a town or place in which the supreme ruler or king (Brahman, Atma or purusha) lives: Its presence moves the activities of its staff (the sense-faculties and the inward sense). The outer sense-faculties bring in outside world (stimuli or experiences of the senses) and hand them over to the in-ward sense (Manas) just as village-heads hand over taxes to the governor, who in turn hands it over to the Finance Minister and Chancellor of the King and ultimately to the King. The experiences of the senses are collected and registered through manas, appropriated by ahankara and then delivered to Buddhi. "A bodily sense perceives and an organ of action executes (one working as entry the other as outgoing); between the two, inward sense (Manas) examines; consciousness (ahankara) makes the individual application that is assimilation of perception by the "ego" and finally the pure intellect (Buddhi) transposes the data of the preceding faculties into the Universal".¹⁵⁶ Ahankara, ego function, causes us to believe that we feel like acting, that we are suffering; it is the prime motivating force of "delusion" (abhimana). It refers all objects and acts of consciousness to an "I". The

¹⁵⁶ *Ibid.*, p. 74.

making of the utterance 'I' (aham) — accompanies all psychic processes". Due to this consciousness we perceive ourselves to be the subject of all deeds and actions. We identify ourselves with this "ego", or consciousness instead of the purusha or Atma which is our real being.

Buddhi on the other hand is a faculty of awareness. According to Sankhya, Buddhi may be regarded as the faculty of "determination, resolution, mental effort, awareness, feeling, opinion, belief, knowledge, discrimination and decision". (Buddhi or Intellect be-comes this faculty when it intersects human subtle form.) Dr. Zimmer remarks that Buddhi is a great store house of our psychic potentialities, wherein our intellectual, volitional, emotional and intuitive faculties *are assembled side by side*".¹⁵⁷ It *renders the* unconscious manifest through every possible kind of creative and analytical psychic process; and these processes are activated from within that is why we become aware of the sun total of our own nature only a posteriori through its manifestations and reaction in the forms of feelings, recollections, ideas and the choices we make through the intellect or will.

Ahankara is characterized by a predominance of rajas guna since it is concerned primarily with doing. Buddhi on the other hand, is predominantly Sattvic, for it is the faculty of awareness, through which psyche can become aware of higher levels of being. According to the Sankhya, Buddhi is the faculty of what is known as adhyavas aya i.e. determination, resolution, mental effort, awareness, belief, knowledge and decision. All of these spiritual processes take place within man, yet are not at his disposal according to his conscious will. One is not free to feel, to know and to think precisely as one chooses. This means that Buddhi precedes ahankara both in rank

¹⁵⁷ *Philosophies of India*, H. Zimmer, p. 321.

and in power. The modes of judgement and experience, according to which we react to impressions, control us from within; they appear as manifestations of the subtle substance of our own character, in fact they are the very constitution of that character. Hence, Dr. Zimmer concludes, it is that we may suppose ourselves to be free and following reason, actually what we are following is the lead of Buddhi, our own "unconscious" nature. However, the term unconscious should not be understood in the popular Freudian or Jungian sense but as that essential sacred nature which is common to all the living beings i.e. Atma. Since Buddhi is a reflection of this Atma it is called "Mahan", the Great one.

Dr. Zimmer observes that Buddhi is known by various names such as mat (مت) "knowledge, judgement, resolution, intention, remembrance, recollection". Within these great store houses of our Psychic potentialities, our intellectual, volitional, emotional and intuitive faculties are assembled side by side. Hence "the great one" is also known as Prajna (پراجنا) "wisdom, discernment"; dhi (دهی) intuition, visualization, imagination"; khyati (کھیاتی) "knowledge, the power of distinguishing objects by proper names"; smrti (سمرتی) "memory" and Prajna-santati (پراجنا سنتاتی) "the continuity of knowing". Buddhi renders the unconscious manifest through every possible kind of creative and analytical psychic process; and these processes are activated from within. That is why we become aware of the sum total of our own nature only a posteriori, through its manifestations and reactions in the forms of feelings, recollections intuitions, ideas and choices that we make through the intellect or will. On this account Guenon differs from Dr. Zimmer. He compares Buddhi to Intellect or Nous of the platonian concept and relates it to its cosmic or universal counter-part. We must always keep in mind the simili which compares Buddhi as a ray emanating from the sun (Atma or Brahma). All the human mental processes take place through the power and illumination of this divine ray. Hence though in a way all the higher mental processes (mat, prajna, dhi, khyati, smrti, etc) as described above could be called in a manner of speech, synonyms of Buddhi, in reality they are nothing more than its reflections on the psychic level.

Buddhi both contains and is the spontaneity of our nature; the other faculties (ahankara, manas, and the ten indriyas) are "like bees, which follow the advice of their Kings". However apparently it

seems that outer senses come in contact with their environment; their experiences are disgusted by *mamas*; the product of *manas* is brought through *ahankara* into relation to one's individuality and then *Buddhi* decides what is to be done. The primacy of *Buddhi* is heavily obscured. Only with the removal of *rajas* and *tamas* does the veil become transparent, for the powers that then pour into the human organism are the "supra-normal" ones of the king's son and the *Buddhi* is revealed in its innate strength. Human nature is composed of three *gunas* but by the means of yoga, *sattva* *guna* is made to prevail. Yogic training purges and clarifies the individual self from *tamas* and *rajas*. With the removal of the first, darkness is removed i.e. the inferior, sub-human tendencies of the soul are transcended, and the subtle matter of *Buddhi* becomes translucent. With the removal of the second i.e. the horizontal ordinary psychic movements, the agitation is removed and the rippling of the restless surface then is stilled so that the waters already cleared become a steady mirror. *Buddhi* then is revealed in its essence; as *Atma* or *purusha*. The matter stops being active the moment one becomes identified with *purusha*. Since in the first place, it is *prakriti* that exhibits the psychic as well as physical phenomena, but the eye that gives energy to the spectacle is the all-illuminating eye of *purusha* and the moment it returns to it-self, the world sense disappears.

In vendantic language, the term used for thinking processes is *citta* (from verb *cint/cit* "to think"); it denotes whatever is experienced or enacted through the mind. *Citta* comprises 1 . observing, 2. thinking, and 3. desiring or intending; that is to say, the functions of both the reasoning faculty and the heart. For, normally, the two behave as one, closely knit in the soul-substance of our nature. Thought, when it surges to the mind is both directed and coloured by our emotional biases and trends; and this to such a degree that a considerable discipline of concentration is required before one can learn to separate reasoning from the movements of the heart.

Because the subtle matter of the inner organs assumes all the forms presented to it by the senses, objects tend to give to the mind a shape or character and to leave on it an impression, or "memory" more or less permanent. Not only the shape of the object itself, but

also the associated feelings and thoughts, as well as the will and determination to act that it aroused, remain as vestiges or traces and, these may be reanimated at a later time by the impingement of something new. In this way memories are excited, images of recollection aroused and continuities of life-desire, fear and manners of conduct founded. The psychological process is understood in Sankhya and Yoga in strictly mechanical terms. The unceasing agitation of transformation brought to pass in the inner organ through perception, emotion, thought and will is not different in kind from the changes observable in the outer world. The transformation is material in both spheres, the sole difference being that in the outer world (which includes, of course, the body of the subject) the matter is gross whereas in the inner it is subtle.

According to Dr. Zimmer this mechanistic formula gives the key to Sankhya interpretation of the mystery of metempsychosis. Within the gross body, which suffers dissolution after death every living being possesses an inner subtle body, which is formed of the sense-faculties, vital breaths and inner organs. This is the body that goes on and on, from birth to birth, as the basis and vehicle of the reincarnated personality. Without going into the details of this idea as presented by Dr. Zimmer we will now refer to Rene Guenon who has discussed various conditions of subtle body of man in detail.

As previously explained, an individual being includes the subtle form (sukshma-sharira or linga-sharira) on the one hand and the gross or bodily form (sthula-sharira) on the other. The various states to which any single individual being is subject can be explained briefly as follows: Firstly there is the "waking state" corresponding to gross manifestation of Atma; secondly the "dream state", corresponding to subtle manifestation and finally the "dee sleep" which is the "causal" and formless state. "The first condition is vaishwanara, the seat of which is in the waking state (jagaritasthana), which has knowledge of the external (sensible) objects, which has seven members and nineteen mouths and the world of gross manifestation for its Province".¹⁵⁸ The word vaishawanara means "that which is common to all

¹⁵⁸ *Man and his Becoming*, p. 90.

men". It also denotes whole of universal Manifestation, i.e. the macrocosm. Hence the description given above ascribes both to macrocosm as well as to microcosm. The seven members mentioned in the above quotation from the Upanishad are presented by Guenon in the following order: (1) The assemblage of higher luminous spheres is compared with the part of the head containing the brain, for the brain in fact corresponds organically with the "mental" function, which is but a reflection of the intelligible light or of the supra-individual principles; (2) the sun and the moon are represented as two eyes; (3) the igneous principle is the mouth; (4) the directions of space are the ears; (5) the atmosphere, that is to say the cosmic environment whence the "vital breath" (prana) proceeds, corresponds to the lungs; (6) the intermediate region (Antariksha), extending between the Earth (Bhu or Bhumi) and the Heavens (Swarga) corresponds to the stomach; (7) finally the Earth, corresponds to the feet, which are taken here as the emblem of the whole lower portion of the body. It will be noticed that no mention is made here of the heart; Guenon explains that heart's direct relation-ship with universal Intelligence places it outside the sphere of the individual functions and also because this "seat of Brahma" is really and truly the central point in the human being and all other parts or states are peripheral in regard to it.

The nineteen organs through which Atma as vaishwanara becomes conscious of the world of sensible manifestation are described as "mouths" because they are the five organs of the action, the five vital breaths (vayus), the "mental" faculty or the inward sense (manas) the intellect (Buddhi), thought (chitta), conceived as the faculty which gives form to ideas and which associates them one with another, and finally individual consciousness (ahamkara). These have already been discussed.

In the dream state, the outward faculties, while existing potentially, are reabsorbed into the inward sense (manas). "The second condition is Taijasa (the igneous element) whose seat is in the dream state (Swapna-sthana - سڀنا - استخوان) which has knowledge of the inward (mental) objects, which has seven members and nine-teen mouths and whose domain is the world of subtle manifestation".¹⁵⁹

Manas or the inward sense is the common source of all mental faculties and it resides in the luminous arteries (nadis ندي) nature in the manner of a diffused heat. As the igneous element (Taijasa) is compared symbolically to fire, it has like fire two aspects; heat and light, Nodis, correspond physiologically to ramifications of the nervous system. So the subtle state is linked to the corporeal state in two different and complementary ways, through the blood, as to the caloric, and through the nervous system as to the luminous quality.

"In the dream state the individual 'living soul' (Jivatma) 'is to itself its own light' and it produces, through the action of its own desire (kama) the objects consist exclusively of mental conceptions, that is to say of combinations of ideas clothed in subtle forms".

The state of deep sleep or the condition of Prajna (پڙاجنا) is beyond any form or phenomena. It is the state of union or reabsorption in the Brahma or Atma. "This is essentially a formless or supra-individual state; it cannot therefore have anything to do with a "psychic" or "psychological" state. The psychic properly speaking is in fact the subtle state. . . ." Since this state is beyond the range of our topic we will not discuss it further. However one point must be clarified. As mentioned earlier, Dr. Zimmer believes that the subtle-body or soul survives along with its sense-faculties after dissolution of the material body and goes from life to life in re-incarnated possibility. But Guenon has shown that the part that survives the body is not sense-faculties or thoughts but the Jivatma or living soul in individual form. "When a man is about to die, speech, followed by remainder of the ten external faculties is reabsorbed into the inward sense (manas). This later faculty there

¹⁵⁹ *Ibid.*, p. 96.

upon withdraws in the same way into the "vital breath" (prana accompanied in its turn by all the vital functions (the five vayus); the individual consciousness ceases to be. As a King's servants gather round him when he is about to go forth upon a journey, even so all the vital functions and faculties (external and internal) of the individual gather round the "living soul" at the final moment when this living soul is about to retire from its bodily form. Accompanied thus by all its faculties (since it contains them in itself as possibilities) it withdraws in an individual luminous essence composed of the five tanmatras or supra-sensible elementary essences into a subtle state.

Before concluding this review of the vedantic concept of psyche, it seems fit to briefly consider one important, rather essential, point of the Hindu thought, i.e. the meaning that it attributes to the term personality. The word personality is derived from "Persona" signifying a mask worn by the actor during a play. The mask bears the features or make-up of the role whereas the actor himself remains anonymous, aloof and unconcerned with the enacted sufferings and passions. In modern outlook the actor and the persona has become identical whereas Hindu philosophy insists upon the difference, stressing the distinction between the actor and the role. It emphasis the contrast between displayed existence of the individual and real being of the anonymous actor, concealed and veiled in the costumes of the play. One of the dominant endeavours of Indian thought throughout the ages has been to develop a dependable technique for keeping the line clear between the two. Their interrelationships and modes of collaboration are defined and a systematic effort is made to break from the confines of one into the unfathomed reaches of the other, primarily through the discipline of yoga, which cuts through the mask and reveals to consciousness the centre of one's being.

To be Continued

(Discussion of the idea of Psyche as presented in the Buddhist tradition, Taoism, Hermetic tradition and Islam, with its comparison to the modern psychology will be published in the next issue, October 1986.)

NAQSHBANDIYYA AND IDEOLOGY OF MUSLIM NATIONALISM

Dr. Fateh Mohammad Malik

At a critical juncture in the history of Muslim India, when even most of the 'Ulama (religious divines) were despaired of Islam as a living political force and were busy collaborating with the Indian National Congress in propagating the political creed of composite Indian nationalism. Muhammad Iqbal (1877 — 1938), the poet-philosopher of Islam, declared that Muslim India will never accept this idea because it amounts to a loss of its distinct cultural identity. Acting upon the Naqshbandi principle of KHALWAT DER ANJUMAN (solitude in society) Iqbal came forward with a sense of mission to guide Muslim India in the realm of political activity. Stressing the need for a separate Muslim homeland in the Indian sub-continent, Iqbal articulated and unfolded the ideology of separate Muslim nationalism. In his address to the annual session of All India Muslim League, in 1930, he argued that:

'the nature of the Prophet's religious experience, as disclosed in the Qur'an, however, is wholly different. It is

individual experience creative of a social order. Its immediate outcome is the fundamentals of a polity with

implicit legal concepts whose civic significance cannot be belittled merely because their origin is revelational. The religious ideal of Islam, therefore, is organically related to its social order which it has created. The rejection of the one will eventually involve the rejection of the other.'

While rejecting the idea of a composite Indian nationalism and formulating the ideology of a separate Muslim nationalism, Iqbal's approach is similar to that of the famous Naqshbandi saint, Shaikh Ahmad Sarhindi (1564—1624). Iqbal's attitude towards the prevalent forms of Sufism was always critical. But in spite of his rejection of stagnating pantheism and his sharp criticism of hereditary "pirism", he was an ardent

follower of Shaikh Ahmad Sarhindi. His son, Javaid Iqbal has narrated that:

"a year or so before I was born (1924), father visited the mausoleum of Shaikh Ahmad Sarhindi, also known as Mujaddid Alf Thani. At the mausoleum, my father prayed

for a child — a son. His prayer was heard, and later, in the summer of 1934, when I had attained an impressionable age, he took me to Sarhind. I can recollect our visit to the mausoleum of Shaikh Ahmad, for it is impressed vividly on my mind. Father took me inside of the mausoleum, sat close to the grave of the saint, and recited the Qur'an. I felt afraid of the darkness and was terrified by the grave; yet I was aware of a peculiar familiarity with my hushed and desolate surroundings. I watched father recite the Qur'an. His sad voice vibrated through the dark dome of the mausoleum and tears streamed down his cheeks.²

Iqbal venerated the Naqshbandi saint in his poetry more than once. In one of his verses he prayed for his reappearance on the spiritual and political horizon of Muslim India.³ According to him the socio-political situation of Muslim India in the early decades of the twentieth century had reached a similar point of crisis in which it was in the sixteenth century. To him Shaikh Ahmad Sarhindi was divinely inspired in spear-heading the Naqshbandi reaction against Akbar's experiments in eclecticism. Thus he sang in his poem "To the Punjab Pirs!":

I stood by the Reformer's tomb: that dust

Whence here blow an orient splendour breaks,

Dust before whose least speck stars hang their heads

Dust shrouding that high knower of things unknown

Who to Jehangir would not bend his neck,

Whose ardent breath fans. every free heart's ardour,

Whom Allah sent in season to keep watch

In India on the treasure-house of Islam.

I craved the saints' gift, other-worldliness;

For my eyes saw, yet dimly. Answer came:

'Closed is the long roll of the saints; this Land

Of the Five Rivers stinks in good men's nostrils.

God's people have no portion in that country

Where lordly tassel sprouts from monkish cap;

That cap bred passionate faith, this tassel breeds

Passion for playing pander to Government.⁴

Iqbal's attitude towards Sufism is vividly reflected in this little, illuminating poem. He was born and brought up in a family steeped in Sufism, but he was conscious of the dangerous consequences of the prevalent forms of decadent Sufism. Hence his vehement criticism of the life-denying, miracle-selling and time-serving Pirs, but at

the same time his veneration of the Naqshbandi Saint Shaikh Ahmad Sarhindi. Iqbal regarded him as 'a great religious genius;⁵ and 'a *great reformer of Sufism*'⁶ whose 'fearless analytical *criticism* of contemporary Sufism resulted in the development of a new technique.'⁷ Presenting Iqbal *in the context of Indo-Muslim mystical*

reform movement, Annemarie Schimmel observes that:

Iqbal follows even more closely the line of the great Delhi mystics in the 18th century. They, like him, had to face *grave* problems *in a* time of utter *destitution of the* Muslim community in India and tried to help the community to find a new way towards self-identification. These three leaders were Shah Waliullah, Mazhar Janjanaan and Khawaja Mir Dard. All three were initiated in the Naqshbandi Mujaddidi Silsila; all the three defended the importance of the unmitigated Shari'a and believed in the political activity of the mystical leader . . . Among the Delhi mystics Iqbal mentions particularly Shah Waliullah, who saw his special duty, to which he devoted most of his writings, as the purification of the Muslim community so that they might reach prosperity in this world and the next ... *However, not* only Shah Waliullah *but all three* Delhi mystics of his time developed a theory of prophecy which sounds very modern and which has been taken up also by Iqbal.⁸

It is symptomatic of the development of Naqshbandi Sufism in Muslim India, that, in order to check the religio-political disintegration of Islam, it combines strong fundamentalism with deep mystical insights and practices. Perceiving the danger of spiritual submergence of Islam into Hinduism, Sarhin,i reacted against Akbar's (1556—1605) heresy by stressing the purity of Islam and highlighting the separate identity of the Muslim community in India with full emphasis on his command. Once again in the middle of the seventeenth century, the same crisis reappeared and became polarized in the conflicting outlooks of two brothers Dara Shikoh and Aurangzeb. The influence of Sarhindi continued to work after him. His sons and followers carried out his mission under the banner of Naqshbandiyya-Mujaddidiyya and their writings and influence prevented Islam from disintegration into syncretic heresies of Dara Shikoh. They not only helped Aurangzeb in the war of succession, but also guided him in formulating policies aimed at preservation of the separate identity

of the Indian Muslim community. Similarly during the period of rapid disintegration of Muslim India and the rise of anti-Muslim anarchic forces, the Naqshbandiyya leadership in the 18th century placed a renewed emphasis on the person of Muhammad by formulating the concept of *Tariq'a-i-Muhammadiyya* (the Muhammeden Path). This new and dynamic concept reintegrated the formalistic dynamics of Islam with the inner vitality of Sufism and inspired Ismail Shahid and Sayyid Ahmad Bareilvi to launch the militant movement of the Mujahidin, in the first half of the-19th century, for the restoration of the prestige of the Muslim community in India. Giving a brilliant analysis of the phenomenon of continuity and change in the role and strategy of the Naqshbandiyya-Mujaddidiyya leadership from the 18th through the 20th century. Warren Fusfeld observes that

the assertion by the individuals at the head of the tradition

of a chain of authority connecting them to Muhammad

and the earliest of his followers lay at base of popular

belief in the authenticity of this form of Islamic leader-

ship. It also provides the basis on which actual change in

meaning and significance of the tradition could be accepted in a context of a high value being placed on the

avoidance of change (bidah or innovation). Thus, it is not

only "modernists" or revolutionaries who rethink their

cultural and societal systems, but also those who continue

to view the world through traditional systems of belief.⁹

Seen in this perspective of continuity and change, Iqbal's response to the deepening crisis of Muslim India in his own times is rooted in the Naqshbandi-Mujaddidi tradition of Sufism. Muslims were on the decline throughout the world but the situation of the Muslims in British India was more dangerous. They were face to face with the danger of syncretic merger into Hinduism. An acute awareness of this situation led Iqbal to develop in the Indian Muslim community an inner sense of solidarity and identification with the wider Muslim world. His poetry exercised a magnetic influence to link his audience to symbols of Muslim identity and his political thought and activity created a formidable movement of political dimensions for creation of a separate Muslim homeland in the Indian sub-continent. The *ijma'* of Muslim people accepted the ideology of separate Muslim nationalism, but,

most of the religious divines denounced it on basis of identification of a nation with the land it inhabits, irrespective of

r religious differences.

Seldom before in the history of Islamic India had the 'Ulama' taken a stand so contrary to the political instinct of the intellectual elite and the masses of the people.¹⁰

This rejection of the political ideal of Islam by some of the leading religious divines had brought Muslim India to a point of religiopolitical disaster. Iqbal argued that the advocacy of composite Indian nationalism on the basis of Islam amounts to a revolt against the original spirit of Islam. The situation demanded another mujaddid (renovator) of Islam in India. Iqbal took up the challenge. Upholding the theory of *Wahdat-al-Shubud*, in the typical Naqshbandi way, Iqbal placed his whole emphasis on the person of the Holy Prophet. In order to refute the heresy springing from the religious innovation at Akbar's court, Shaikh Ahmad Sarhindi had written *Ithbat-i-Nabuwmat* and had declared:

Only one who followed the Prophet followed God. "

Likewise, in his poetry as well as his religio-political polemics, Iqbal passionately advocated the idea that the essence of Islam lies in the life and teachings of the Holy Prophet. Closely following the Naqshbandi-Mujaddidi tradition, Iqbal combines rational and mystical elements in his prophetology and highlights the politico-social role of the Holy Prophet. When Maulana Hussain Ahmad Madni extended his full support to the political creed of the Indian National Congress, Iqbal reacted sharply from his death bed.

It was a very easy course for Muhammad to tell Abu Lahb, Abu Jahl, or the unbelievers of Mecca that they could stick to their idol-worship while he himself would hold fast to worship of God and that they could together form an Arabian unity by virtue of factors of race and land common to them both. God forbid, but if he had adopted this course, it would certainly have done him credit as a patriot but not as the last Prophet. The ultimate purpose of the prophetic mission of Muhammad is to create a form of society, the

constitution of which follows that divine law which the Prophet Muhammad received from God. In other words, the object is to purify the nations of the world of the abuses which go by the name of time, place, land, nation, race, geneology, country etc., although the differences of nations, tribes, colours and languages are at the same time acknowledged. It is thus to bestow upon

man that spiritual idea which at every moment of his life remains in constant contact with Eternity. This is where Muhammad stands and this is the ideal of the Muslim community.¹²

The Muslim community rejected the creed of composite Indian nationalism, as it had rejected, a few centuries ago, Akbar's *Din-i-Ilahi*. Looking from this angle, it seems to me that the ideology of separate Muslim nationalism i.e. the vision of Pakistan as unfolded by Iqbal, is the culmination of the continuous Naqshbandi reaction against successive attempts at deviation from the true Muhammadan path in Muslim India.

1. Sherwani (Latif Ahmad), ed. *Speeches, Writings and Statements of Iqbal*, Lahore, Iqbal Academy, 1977, p. 7.

2. Malik (Hafeez), ed. *Iqbal, Poet-Philosopher of Pakistan*, New York, Columbia University Press, 1971, p. 56.

3. 'Tyn sau sal say hain hind kay maykhany band ab munasib kih tra faid hu am ay saqi'

Mian Bashir Ahmad has disclosed that in reply to his query Iqbal had indicated that he had made a reference in this verse to the role of Shaikh Ahmad Sarhindi as renovator of Islam in the second millenium, *Humanyun*, (Urdu magazine), Lahore, April 1955.

In a letter to Sayyid Sulaiman Nadvi, written in 1917, Iqbal states that:

Khawaja Naqshband and the Mujaddid of Sarhind hold a very high rank in my heart.

Nizami (Mahmud), ed. *Malfuzat-i-Iqbal*, Lahore, 1949, p. 79.

4. Kiernan (V. G.), ed. *Poems from Iqbal*, London, John Murray, 1955, p. 58.
5. Iqbal (Muhammad), *The Reconstruction of Religious Thought in Islam*, Lahore, 1971, p. 192.
6. *Ibid.*, p.193.
7. *Ibid.*, p. 194.
8. Brelvi (Ebadat), *Jashnnama-i-Iqbal*, Lahore, 1977, pp. 165,166, 170.
- 9.
9. Lawrence (Bruce B.), *Ibn Khaldun And Islamic Ideology*, Leiden-E. J. Brill, 1984, p. 104.
10. Ahmed (Aziz), *Islamic Modernism in India and Pakistan*, London, Oxford University Press, 1967, p. 193.
11. Sarhindi (S. A.), *Maktubat-i-Mujaddid Alf-i-Thani*, Vol. 11, p. 103.
12. Sherwani (L. A.), *Speeches, Writings and Statements of Iqbal*, Lahore, 1977, p. 261.

IQBAL'S ENGLISH TRANSLATION OF HIS OWN PERSIAN COUPLETS

Dr. Muhammad Riaz

Allama Iqbal was not only a poet par-excellence of Persian and Urdu but also a versatile writer. In his correspondence as well as in the accounts of his journeys, detailed statements and articles, he quoted many of his Persian and Urdu couplets: in some cases his lyrics or quatrains are included in full in these writings.^[1] He has quoted his earlier couplets in his later books also.^[2] In this respect a study of his *Javid Nama* is very interesting as here the poet has inserted couplets of his *Asrar-e-Khudt*^[3] and a few lyrics of his *Payam-e-Mashriq* and *Zabur-e-'Ajam* in different firmaments^[4] referring to different appropriate characters of this dramatic *Mathnavi*. But quotations from his earlier Urdu books in the later works are rare.^[5] There are a few common parts of his English writings, too.^[6]

By now almost all the Persian works of Iqbal have been rendered into English. Though we do not find any example of Iqbal's have been rendered into English. Though we do not find any example of Iqbal's own translation of any of his Urdu couplet into English, we, nevertheless, have a few examples of his own translation of Persian couplets into English which he has quoted in his articles or lectures. These translations pertain to his two *mathnavies*; the first being of *Gulshan-e-Raz-e-Jadid* and the second from *Javid Nama*. One couplet each has been translated from the lyrics of *Payam-e-Mashriq* and *Zabur-e-'Ajam*. These examples provide us important guidelines about Iqbal's vivid pattern of translation.

In 1925 Iqbal's article on "Self in the light of relativity"^[7] was published and in 1932 his another research article appeared under the title of 'McTaggart's Philosophy.'^[8] Both these articles have the translations of Iqbal's couplets taken from the Gulshan-e-Raz-e-Jadid and Javid Nama. Persian couplets and translation is hereunder:

ازاں مرگے کہ می آید چه باک است
 خودی چوں پختہ شد از مرگ پاک است
 زمرگ دیگرے لرزد دل من
 دل من، جان من، آب و گل من
 زکار عشق و مستی بر فنا دن
 شرار خود بخاشا کے ندادن
 بدست خود کفن بر خود بریدن
 بچشم خویش مرگ خویش دیدن
 ترا این مرگ ہر دم درکین است
 تبرس ازوے کہ مرگ ما ہمین است
 اگر گوئی کہ من وہم و گمان است
 نمودش چوں نمود این و آں است
 بگو بامن کہ دارائے گمان کیست؟
 یکے در خود نگر آں بے نشاں کیست؟

جہاں پیدا و محتاج دلیلے
نمی آید بکھر جبریلے
خودی پہناں زحمت بے نیاز است
یکے اندیش و دریاب این چه راز است
خودی را حق بدال باطل پندار
خودی را کشت بے حاصل پندار
خودی چوں پختہ گرد و لازوال است
فراق عاشقان عین وصال است
شدر تیز بالے می توای داد
پتید لایزالے می توای داد
دوام حق جزائے کار او نیست
کہ اورا این دوام از جستجو نیست
دوام آل بہ کہ جان مستعارے
شود از عشق و مستی پایدارے
مرا دل سوخت در تنہائی او
کنم سامان بزم آرائی او
مثال دانہ می کارم خودی را
برائے او نگہدارم خودی را

"Why fear that death which comes from without?

For when the "I" ripens into a self it has no danger of dissolution.

There is a more subtle inner death which makes me tremble!

This death is falling down from love's frenzy

Saving one's spark and not giving it away freely to the heaps of chaff;

Cutting one's shroud with one's own eyes;

This death lies in ambush for thee!

Fear it, for that is really our death."^[2] –

If you say that the "I" is mere illusion –

An appearance among other appearances –

Then tell me who is the subject of this illusion

Look within and discover.

The world is visible, yet its existence needs proof!

Not even the intellect of an angel can comprehend it;

The "I" is invisible and needs no proof!

Think a while and see thine own secret;

The "I" is Truth, it is no illusion;

Don't look upon it as a fruitless field.

When it ripens, it becomes eternal!

Lovers, even though separated from the Beloved

Live in blissful union!

It is possible to give wings to a mere spark,

And to make it flutter for ever and for ever!

The Eternity of God is (elemental and) not the reward of His action!

For His eternity is not through seeking.

That eternity is superior, which a borrowed soul
Wings for herself by love's frenzy.^[10]

My heart burns on the loneliness of God!

In order, therefore, to maintain intact His Ego-Society

I sow in my dust the seed of selfhood,

And keep a constant vigil over my "I".^[11]

In the article on "McTaggart's Philosophy" and in his last 7th lecture entitled "Is Religion Possible?", in *The Reconstruction of Religious Thought in Islam* Iqbal has quoted his couplets from *Javid Nama*: these are about Nietzsche and the significance of 'Mi'raj'. The couplets and their translation by Iqbal is being quoted here under:

بود	حلّاج	بشهر	خود	غریب
جال	زماً	بردو کشت	او	اطیب
آنچه	او	جوید	مقام	کبریاست
این	مقام	از عقل	و حکمت	ماواست
خواست	تا	از آب	و گل	آید بردن
شاهد	ثانی	شعور		دیگرے
خویش	را	دیدن	بنور	دیگرے
شاهد	ثالث	شعور	ذات	حق!
خویش	را	دیدن	بنور	ذات حق
پیش	این	نور	ارہانی	استوار
حی	و قائم	چوں	خدا	خود را شمار

بر مقام خود رسیدن زندگی است
 ذات را بے پردہ دیدن زندگی است
 چیست معراج؟ آرزوئے شاهدهے
 امتحانے روبروئے شاهدهے
 شاهده عادل کہ بے تصدیق او
 زندگی مارا چو گل را رنگ و بو
 در حضورش کس نماند استوار
 در بماند ہست او کامل عیار
 ذرّہ از کف مدہ تابے کہ ہست
 پختہ گیر اندر گرہ تابے کہ ہست
 تاب خود را برفزودن خوشتر است
 پیش خورشید آزمودن خوشتر است
 پیکر فرسودہ را دیگر تراش!
 امتحان خویش کن، 'موجود' باش
 ایں چنین موجود 'محمود' است و بس

ورنہ نار زندگی دور است و بس

A Hallaj, A stranger in his own land!

Safe from the Mullah's hit, killed by the Physician's hand
The 'I am' which he seeketh,

Lieth beyond philosophy, beyond knowledge.
 The plant that growth only from the invisible soil of the
 heart of man,
 Groweth not from a mere heap of clay!^[12]
 Art thou in the stage of 'life', 'death', or 'death-in-life'?
 Invoke the aid of three witnesses to verify thy 'Station'.
 The first witness is thine own consciousness –
 See thyself, with thine won light.
 The second witness is the consciousness of another ego–
 See thyself, then, with the light of an ego other than thee.
 The third witness is God's light,
 If thou standest unshaken in front of this light,
 Consider thyself as living and eternal as He!
 That man alone is real who dares –
 Dares to see God face to face!
 What is 'Ascension'? Only a search for a witness
 Who may finally confirm thy reality –
 A witness whose confirmation alone makes thee eternal
 No one can stand unshaken in His Presence;
 And he who can verily, he is pure gold
 Art thou a mere particle of dust?
 Tighten the knot of thy ego;
 And hold fast to thy tiny being;
 How glorious to burnish one's ego
 And to test this luster in the presence of the Sun!
 Re-chisel, the, thine ancient frame;
 And build up a new being.
 Or else they ego is a mere ring of smoke!^[13]

The translations of the followings two couplets of the
 lyrics of *Payam-e-Mashriq* and *Zabur-e-'Ajam* also appear in the
 article 'McTaggart's Philosophy' and also in a note entitled
 'An exposition of the self' dictated by Allama Iqbal to Sayyid

Nazir Niazi in the summer of 1937 respectively:

اسرار ازل جوئی؟ بر خود نظری داکن
یکتائی و بسیاری، یزمانی و پیدائی
گرفتم اینکہ شراب خودی بے تلخ است
بدرد خویش نگر، زہر ما بدرماں کش

'Shall I point the way to the external secret? Open thine eyes on theyself;

Thou art visible and invisible, many and one.

The wine of egohood is no doubt bitter, but do look to the disease and take may poison for the sake of the health.

The Translation of a couplet by the poet himself actually reveals depth of meaning contained in his short words and the specimen of Allama Iqbal own translation of his Persian couplets displays this fact quite vividly. It is very difficult for an ordinary translator of Iqbal's poetry to trace the varied and deep meanings especially of his lyrics in the *Payam-e-Mashriq* and *Zabur-e-'Ajam* or the Philosophical Poetry of *Gulshan-e-Raz-e-Jadid* and *Javid Nama* and all examples have been derived from these four books here. These can provide good examples to the persons busy in translating and annotating Iqbal.

NOTES

^[1] For example, an Urdu Lyric now included in the first part of bang-e-Dara was first put forth in Iqbal's journey accounts written for the editor of the then newspaper 'Watan'

in 1905.

^[2] As couplets from 'Bandagi Nama' (*Zadur-e-'Ajam*) are asserted in Mathnavi 'Musafir' or of *Javid Nama* in 'Armaghan-e-Hijaz'.

^[3] In the 'Tawasin-e-Muhammad: Cry of Abu Jahil' and also in the appendix 'Address to Javid'.

^[4] But the book has now lyrics (ghazels), too.

^[5] E.g. in the poems 'Shama' aur 'Khizer-e-Rah', such quotations are envisageable.

^[6] See "The Muslim Community..." being Iqbal's address at Aligarh (1910) and portions of the Diary Stray Reflections, e.g. about Aurangzeb and Irna's conquest by the Arab Muslims.

^[7] Text in, Thoughts and Reflections of Iqbal, edited by S. S. Vahid, pp. 111 to 115).

^[8] Ibid., pp. 116-117, and also in Speeches, Writings and statements of Iqbal, edited by Latif Ahmed Sherwani (1977 Edition of Iqbal Academy Lahore), pp. 143-150.

^[9] From answer to question 6.

^[10] From answer 8.

^[11] From last answer number 9.

^[12] From the sphere of 'beyond the heavens': the Stations of Nietzsche.

^[13] From the prelude of the earth: the essence of the Mi'raj. With these translated couplets, *The Reconstruction* ends.

EPISTEMOLOGY OF MORAL JUDGMENTS ACCORDING TO THE HOLY QUR'AN

Prof. Muhammad Rafiq Chauhan

The judgments passed on human actions as to their goodness and rightness or otherwise are called the moral judgments. These judgments are restricted to the actions of normal sensible human of these moral judgments because they can not exercise the rational process of discrimination between good and evil or between right and wrong. The same reason exempts the actions of insane persons from being judged morally. Even in case of the normal and same adult human beings there are two pre-requisites to be found in their actions before any moral judgment can be passed upon them. The first is that these actions should be voluntary and the second is that they must have some positive or negative bearing vis-ō-vis the moral values. That behaviour of a man deserves neither praise nor condemnation on which his volitions, choices or decisions have not made and even could not at any time; whether past or present, make any effect. Freedom to make a choice between the various possible alternatives; to do or avoid some act is a must for permitting a moral judgement to be made. But although freedom is a necessary condition for an act's moral evaluation yet it is not the only or the sufficient condition. An act may be voluntary and yet may not be an object of moral evaluation. Rather than being moral or immoral it may remain a moral. Take the example of two law-abiding and value respecting persons. One of the does not have to do much of physical labour and therefore he chooses out of his own free will to have a light

breakfast while the other person might opt for a heavier breakfast in anticipation of the hard physical labour that he has to perform in the hours to come. The act of choosing the kind of breakfast that each of these two gentlemen had was free and self-chosen. Yet neither of them can be morally eulogized or depreciated because their choices and the acts resulting there from come into the jurisdiction of morality only when, besides being voluntary and volitional, it has some bearing on the moral values such as Truth, Knowledge, Social Welfare, Justice, Health, Wisdom, Happiness, Courage, Honesty, Friendship etc.

The question of moral behaviour is therefore basically a question of the moral values. If our actions conform to the principles of morality and also further promote the cause of the values they are judged as right or good. To the extent they fail to do so they are condemned as wrong and evil. Moral judgment therefore means accepting a moral value as a standard and declaring whether the particular act on which the moral judgment is being made is in accordance with the principle or whether it promotes the cause of the value cherished by us or whether a negative effect is produced by it.

There are in Ethics some very lengthy discussions as to whether the moral values are known by the exercise of reason; whether they are inferred from the practical example of a law-giver or whether they are contained in the divine commands. In this article I have tried to give a brief description of Islam's contention regarding these sources of knowledge in respect of moral principles and values.

To begin with, the Kalam-Allah, i.e., the word of God has the supreme authority. Allah is Omniscient. His knowledge encompasses everything. Nothing is hidden from him. He knows all the secrets of the world. The nature and

wisdom of all the phenomena of the world, the laws inherent in the processes of change, evolution and revolutions as well as the needs and necessities of life are all fully known to Him. The Qur'an says:

ان الله لا يخفى عليه شيء في الارض ولا في السماء (آل عمران: ٤٤)

Lo! Nothing in the earth or in the heaven is hidden from Allah. (III:5)

ولله غيب السموت والارض (النحل: ٤٤)

And unto Allah belongeth the Unseen of the heavens and the eath. (XVI:77)

اتتاهم الله الذي لا اله الا هو وسع كل شيء علما (طه: ٤٤)

Your God is Allah, than Whom there is no other God. He understandeth all things in His knowledge.

Allah is not only *al-Aleem* i.e., the Knower but also al-Hakeem i.e., the Wise. His commands are full of wisdom and lead to the Truth.

انه حكيم عليم (الحجر: ٤٤)

Lo! He is Wise, Aware. (XV:25)

انه حكيم عليم (الحجر: ٤٤)

Lo! He is Wise, Aware

قد الله يهدي للحق (يونس: ٤٤)

...say: Allah leadeth to the Truth. (x:35)

وانه عليم حكيم (الحج: ٤٤)

...And Allah is Knower, Wise. (XXII:52)

In His wisdom He has ordained only that which is for the welfare and betterment of the people. It is therefore

incumbent upon man to obey His commands and to refrain from that which has been forbidden by Him. To act otherwise would definitely lead away from the path of the Truth and Right-doing to the path of ignorance and evil-doing:

والذين كذبوا بآياتنا سنستدرجهم من حيث لا يعلمون (الاعراف: ٤٤)

And those who deny Our revelations – step by step we lead them on from whence they know not.

ومن لم يحكم بما انزل الله فاولئك هم الظالمون - (البائده: ٤٤)

...Whose judgeth not by that which Allah hath revealed; such are wrong-doers.

ومن لم يحكم بما انزل الله فاولئك هم ارفاسقون - (البائده: ٤٤)

...Whose judgeth not by that which Allah hath revealed; such are evil-doers.

The Holy Qur'an is therefore the supreme authority in Islam for the purpose of determining the moral values and principles. It is from this authority that we come to know that God is the source of all values. He created man as His Vicegerent upon earth. It is, therefore, man's duty to acquire godly characteristics as far as is humanly possible. A famous saying of the Holy Prophet (peace be upon him) further supports this view wherein he is reported to have said:

تخلقوا باخلاق الله

(Inculcate in yourselves the characteristics of Allah).

The characteristics of God are expressed in the Qur'an by the connotation of His various names (*Asma-e-Husna*) which are the sources of all higher values of life. Similarly His commands are the surest and un-faulty grounds for the

principles of morality. The basic and fundamental principles of morality ordained by Him in His Kalam i.e., the Holy Qur'an are eternal, unchangeable and irrevocable. The passage of time and the in-coming changes in the social set-up do not and can not make any difference to them. He is the Creator of this universe as the laws of all movement and change. In His great wisdom and knowledge therefore at the time of His revelations He was fully aware of all the future changes and the ever-new circumstances to be faced by man. The changes inherent in the development of the historical process and also the innovations in the field of economic and social relations and the scientific inventions were all known to Him. He has given us the most general and fundamental principles which are true for all times to come. The practical application of these general principles in the particular circumstance, however, is to be done with reference to the general spirit of the age concerned and the particular case. We might say that the moral laws and values as revealed by God are eternal but their comprehension, interpretation and casuistic applications are temporal.

The safest guide to Muslims and in fact to all human beings in understanding and comprehending the true import of the word of God is the precept of the Holy Prophet teaches the Muslims and makes them understand the wisdom contained in the Book of God. His teachings and personal example purifies the believers:

كما ارسلنا فيكم رسولا منكم يتلوا عليكم ايتنا ويزكيكم ويعلمكم الكتب و

الحكمة ويعلمكم ما لم تكونوا تعلمون - (البقرة: ١٢٩)

Even as we have sent amidst you an apostle from amongst you, who rehearseth unto you our revelations and

purifies you and teacheth you the Book and wisdom, and teacheth you that which ye were not want to know. (11:151)

لقد من الله على المومنين اذ بعث فيهم رسولا من انفسهم يتلوا عليهم اياته و

يزكيهم ويعلمهم الكتب والحكمة وان كانوا من قبل لفي ضلل مبين- (آل عمران: ١١٤)

Assuredly Allah hath conferred a benefit on the believers when He raised up unto them an apostle from amongst yourselves; he rehearseth unto them His revelations and purifieth them and teacheth them and teacheth them the Book and wisdom, and afore they were in an error manifest. (III:164)

هو الذى بعث في الامتتين رسولا منهم يتلوا عليهم اياته و يزكيهم ويعلمهم الكتب

والحكمة- وان كانوا من قبل لفي ضلل مبين- (الجمعة: ٦)

He it is Who hath raised amidst the unlettered ones an apostle from among themselves, rehearsing unto them His revelations and purifying them and teaching them the Book and wisdom, though they have been aforetime in error manifest. (LXII:2).

According to the Qur'an the teachings of the Holy Prophet are for the betterment and welfare of the people. The Prophet teaches nothing that may be evil. To abide by the teachings of the Holy Prophet is useful and beneficial to man. We may or we may not be able to comprehend the rationale of the Prophet's teachings yet the fact is that the true following of the Prophet is in our own interest. Thus it is stated:

الذين يتبعون الرسول النبى الاقمى الذى يجدونه مكتوبا عندهم فى التوراة و

الانجيل يا مرهم بالمعروف و ينههم عن المنكر و يحل لهم الطيب و يحرم عليهم

الخبثت ويضع عنهم مرهم والاعغل التي كانت عليهم فالذين امنوا به وعزروه ونصروه واتبعوا النور الذي انزل معه اولئك هم المفلحون-

Those who follow the messenger, the Prophet, who can neither read nor write, whom they will find described in the Torah and the Gospel (which are) with them. He will enjoin on them that which is right and forbid them that which wrongs. He will make lawful for them all good things and prohibit for them only the foul and he will relieve them of their burdens and the fetters they used to wear. Then those who believe in him, and follow the light which is sent down with him; they are the successful. (VII:157)

The Holy Prophet not only communicate the word of God to mankind but also acted himself in such a way that his life is the best possible example as to how the divine injunctions and prohibitions can be translated into human actions. He has been commanded by God to be the First Muslim and the Holy Prophet did completely surrender himself to God:

وامرت لان اكون اول المسلمين- (الزمر:٢٢)

...And I am commanded to be the first of those who surrender unto Him. (XXXIX:12)

That is why the first and the best example of how to obey God is furnished by the Holy Prophet Himself. It is stated in the Qur'an:

لقد كان لكم في رسول الله اسوة حسنة لمن يرجو الله واليوم الآخر واذكر دالله كيثرا

(الاحزاب:٢١)

Verily in the message of Allah ye have a good example for him who looketh unto Allah and the Last Day and

remembereth Allah much. (XXXIII:21)

It is, therefore, incumbent upon Muslims to obey the Prophet and seek guidance from him. To ignore this sure guidance would definitely result in their going astray. Only those actions are right which are performed in accordance with the teachings of the Prophet while those are wrong which do not coincide with his teachings. The Qur'an says:

قل اطيعوا الله والرسول (آل عمران:٤٦)

Say: Obey Allah and the messenger. (111:32)

O ye who believe! Obey Allah and the messenger and render not your actions in vain. (XLVII:33) As compared with these unfortunate people, those who follow the Prophet will be fortunate enough in that Allah will have mercy upon them and will bestow upon them the real success.

واطيعوا الله والرسول لعلكم ترحبون (آل عمران:٤٦)

Obey Allah and the messenger, that ye may find mercy. (III:132)

ومن يطع الله ورسوله فقد فاز فوزا عظيما (الاحزاب:٦٦)

...Whosoever obeyeth Allah and His messenger, he verily hath gained a signal victory. (XXXIII:71) (Besides the Qur'an, therefore, the Sunnah of the Holy Prophet is an equally important and necessary determinant of moral values from the Islamic point of view. These two sources are imperative and indispensable. Neither of these can be ignored or avoided. Islam, however, gives due importance to reason also and many instances can be quoted from the Qur'an wherein stress has been laid upon the judicious use of reason. In some verses the inherent contradictions of those who

deviate from the path of righteousness are brought into fore and the verses are completed with the words, **ان لا تعقلون** i.e., do you not use your reason or do you not understand?

The nature and history contain many a thing which can enable a man to choose right, take a correct decision and act judiciously' should he exercise reason.

ان في ذلك لآيات تقويم يتفكرون - (الرعد: ٣)

Verily in these things there are signs for those who ponder. (XIII:3)

ان في ذلك لآيات تقويم يعقلون - (الرعد: ٣)

. . Verily in these things there are signs for those who reflect.

(X111:4)

The fore-sighted people have been asked by the Qur'an to draw lessons from the history of the past

فاعتبروا يا اولي الابصار (الحشر: ٣)

...So learn a lesson, O ye endured with insight. (LIX:2)

A sincere, impartial and dedicated use of reason for finding out the true spirit of the righteousness produces wisdom which is a great boon according to the Qur'an:

ومن يؤت الحكمة فقد اوتى خيرا كثيرا وما يذكر الا اولوا الالباب (بقره: ٢٤٠)

...And he to whom wisdom is granted receiveth indeed a benefit overflowing. (11:269)

In fact the role of reason in morality cannot be ignored. Morality is a matter of training, regulating and harmonizing the various impulses, urges and desires of the human self and subordinating them to the moral values and principles. This

can be done only by reason. Only reason can work as an arbiter between the mutually conflicting desires, wishes and emotions. Furthermore, occasions may arise where the believers have to exercise their own reasoning faculty in order to understand and act upon the true spirit of morality. In this connection the famous conversation between the Holy Prophet and his companion Muaz bin Jabal is a very pertinent example, Who the latter was appointed the governor of Yemen. The Holy Prophet asked him as to how he would judge the matters coming up before him. He replied that he would judge the matters according to the Book of God. The Prophet asked Muaz what he would do if the Book of God contained nothing to guide him in some particular matter. Muaz replied that in that case he would act upon the precedents of the Prophet of God. The Prophet again asked him what he would do if the precedents did not help him. The reply of Muaz was that in that case he would exert to form his own judgment in the matter. The Prophet was pleased with this answer and thanked God for guiding his disciples to adopt a method which he himself liked.

The above mentioned conversation between the Prophet and his companion may, in its context, seem to be relevant to the administrative and political matters yet the same is very much relevant in the matters of Ethics and Morality. This shows that the believers may come across with a situation wherein they may not be able to find a clear-cut injunction from the Holy Qur'an or the Sunnah of the Prophet and must therefore use their own reasoning faculty to arrive at a conclusion. The Prophet had no doubt taught and propagated the universal moral values and principles but he had done so in a specific society and a specific period of time. His methodology with regard to the particular applications of

the divine commands has therefore to be understood by us in the context of the environment that he lived in. The universal element has to be distinguished from the particular spatio-temporal elements of his methods and practices. This universal aspect of his methods and practices would then have to be adopted and applied by us intelligently and rationally in the context of the current circumstances. To do this would involve a judicious use of our reasoning. Hence the institution of Ijtihad in Islam which means to use the thinking, speculating and reasoning faculties in order to infer the true spirit of the law in a particular case. Yet the reason has to conform to the spirit of the Qur'an and Sunnah of the Prophet.

Another argument for the use of reason is that the demands of the different moral values are not always mutually complimentary. In special circumstances, they may be mutually conflicting so that the fulfillment of the demands of one value cannot be attained until and unless another value is at least temporarily set aside by us. We are confronted with the problem of making a choice between the two values. Both of these values are cherished by morality but in the given situation it may be that one of them has the priority over the other. To choose and prefer e.g., between forgiveness and punishment or truth-telling and saving a man's life we are in need of a judicious use of our intellect or the reasoning faculty. The Technical term used in Islam for this sort of the Judicious use of reason is 'Istihsan'. The literal meaning of this word is to consider something good or preferable i.e. what seems nearer to the spirit of the revealed truth contained the Qur'an and practiced by the Holy Prophet. In terms of jurisprudence it means to prefer any one of the two aspects of a problem on the basis of some rational

argument.

After the word of God and the Sunnah of the Holy Prophet, then, reason occupies an important position in the matters of morality. It may however be pointed out that the role of reason according to the Qur'an is secondary and subordinate to the word of God and the Sunnah of the Holy Prophet. The values and the principles given by the Qur'an and the Holy Prophet are absolute and cannot be changed or altered by the reasoning of any man howsoever intelligent he may be. Reason cannot frame and pronounce moral values and principles of its own. It has only two functions to perform. One is to understand, explain and elucidate the values and whenever there is a problem of deciding as to which of the two or more values is to be adopted and adhered to, it may choose between them according to the principle of Istihsan. Its second function is to exert in order to find out and decide the best possible course of action in such circumstances where the clear-cut injunctions are not available in the primary sources of values viz., the Holy Qur'an and the Sunnah.

Human intellect however has its limits. Though important yet it does not have an over-riding position. Its job is just to try to understand, and explain the true connotation of the will of God and also to make an effort as to how best can the principles already given by God and His Prophet can be applied to the new situations. Any attempt by reason to go beyond these limits would amount to an exercise which might cause man's deviation from the right path. That is why the believers are warned by the Qur'an not to prefer their own judgments and opinions to those of God and his Prophet. This warning tells human beings that they not being their own creators, can not know themselves fully hence they can

not depend on their reason only in respect of understanding good and evil. They do not know what is morally good and what is evil, unless they take the decision with reference to the Qur'an and Sunnah. Says Allama Iqbal,

آدمی اندر جهان خیر و شر
کم شناسد نفع خود را از ضرر

Man in this world of Good and Evil very rarely can know what really is beneficial to him what is harmful.

Trash And Treasure

*A CRITICAL EXAMINATION OF AUTHENTIC ISLAMIC SCIENCE
AND THE DECADENT MODERN PARODY*

Muhammad Yousaf Ahsan

A Critique of a New Journal

'...What is characteristic of modern culture is the narrowing down of the field of science and the development of a 'scientism' which interprets the data of science in accordance with a materialism which is imposed upon rather than derived from this data."^[1]

In the name of Allah, the Merciful the Compassionate, To God be all praise for showing his sincere servants the signs of His greatness both in the universe at large and within their own selves, until at last it becomes clear to them that He alone is real.

The Prophet (SAAS) said: "Islam originated as an alien thing and it will again become an alien thing..."^[2]

Islamic civilization was a field of diamonds. It was Heaven's last rain of truth. For long ages the winds of negligence have blown the sands of obscurity across the august landscape of Islam. The worst encroachment has been suffered in those sectors which have most permitted the inroads of Western secular thought and custom to become established. The corruption of Muslim mores and notions is now wholesale, largely because of the universality of essentially Western education in Muslim lands. Islamic science is one of those aspects of Islamic civilization which has been so long and deeply buried by neglect that its real nature and import is only grasped by an exceeding minority

of savants among those Muslims who have had the rare good fortune of having, not only an entirely traditional Islamic education, but an education in the Islamic intellectual tradition apart from the canonical tradition. Among those Muslims who have suffered Western educations (and so have been indoctrinated in the scientific and progressivism perspective) the number of those who can really comprehend Islamic science is virtually nil it is a knowledge in exile, a hidden treasure.

Lately, however, there has been some worthy effort to revive this knowledge and to distinguish it from its antithesis — modern science. The secular scientific outlook has entrenched itself since several centuries as the truly objective and enlightened perspective and the only choice for reasonable and intelligent men. Because of the decadence of religion, particularly in the West, but also in the Muslim world, no effective challenge was ever given. What was required was an adequate critique of the basic premises of the scientific edifice and of scientific epistemology; however, the metaphysical knowledge necessary for such a critique had been almost entirely eclipsed and the only criticism which was ever offered was either of a sentimental or canonical nature. Canonical authority (taqlid) is quite satisfactory for people who accept it unquestionably, and, we might add, fortuitously because it is true and normally sufficient. However, it has not ostensibly been effective in stemming the onslaught of corrosive Western ideology. In fact, Muslims to a very considerable extent have given themselves to making effete and servile apologies in support of the indiscriminate adoption of Western ideas of government, economy, society, and law, as well as Western science and technology. Fortunately, there has arisen in recent decades a growing

cadre of outspoken and articulate Muslim intellectuals equipped with the necessary knowledge of traditional metaphysics and traditional science together with a complete knowledge of Western thought including an understanding of its philosophical roots and history. These elite spokesmen have made such a powerful intellectual and logical criticism of Western thought as cannot be controverted. Only on cleared ground can the intellectual edifice of Islam be reconstructed.

In this critique we will attempt to expound the essential realism and the rigorous intellectuality of the much misunderstood Islamic science, while at the same time exposing the unreality of the reductionist view-points of the modern inductive sciences and the scientific philosophy which as we will present, is an inseparable element of science itself. The first issue of the MAAS Journal of Islamic Science was produced in January 1985^[3] with the avowed intent of catalyzing the re-establishment of an Islamic methodology of science. The articles written for this issue are mutually contradictory. A few present the legitimate and integral Islamic perspective but the rest present the usual capitulations, the unquestioning assent to basic Western premises, together with the routine distortion and misrepresentation of Islamic science. As such the journal affords a suitable point of reference for a critique of contemporary Muslim thought with respect to science and technology.

In the first article of the journal, "The Role of Traditional Sciences in the Encounter of Religion and Science: An Oriental Perspective", Dr. Seyyed Hossein Nasr^[4], a celebrated international authority of Islamic science, convincingly demonstrates that the traditional Islamic sciences like mathematics, astronomy, cosmology, natural

science, and alchemy were based on metaphysics whose primary object was "to read upon the pages of God's creation this primordial message which virgin nature still carries upon the face of her manifold manifestations." (p. 10) "The highest function of the traditional sciences has always been to aid the intellect and the instrument of perception to see the world and, in fact all levels of existence, not as facts or objects but as symbols, as mirrors in which is reflected the face of the Beloved from whom all originates and to whom everything returns." (p. 25) Dr. Nasr ably and irrefutably demonstrates that the Islamic sciences were "symbolist": their main concern was to give to man the knowledge of the hierarchy of being; to reveal to him the verities of the supra-formal dimensions of Reality ('alam-i-tanzih) and of the mysteries of his own inner self which was seen as the requisite to the knowledge of God. These sciences affirmed the pure transcendence (anzih mahad) of God as well as His immanence (tashbih). As such these sciences were esoteric that is, their understanding required spiritual and intellectual qualification. This contrasted them with modern sciences whose comprehension require, only mental abilities.

Intellect versus Reason

This brings us to what is a basic difference between modern science and traditional Islamic sciences: namely, the notion of intelligence or intellect. Dr. Nasr writes that the traditional "sciences are based on a hierarchic vision of the Universe, one which sees the physical world as the lowest domain of reality, yet one which reflects the higher states by means of symbols which have remained an ever-transparent gate towards the invisible for that traditional humanity which had not as yet lost the 'symbolist spirit'.^[5] (p. 13) In the

traditional understanding intellect is precisely the intuitive capability (ta'acququl, ta'arruf, wijdan, hasirah, etc.) to apprehend the meaning of the symbol Calamat) which is a sign pointing at the reality which it reflects according to strict laws.

Since the proper understanding of intellect (al-'aql) is crucial to understanding Dr. Nasr's point as well as the argument of this essay it is well at this point to clarify the meaning since we are quite aware it is one of those terms which is much abused. Dr. Nasr writes:

In Arabic and other Islamic languages a single term, al-'aql, is used to denote both reason and intellect, but the distinction between the two as well as their interrelation and the dependence of reason upon intellect is always kept in mind Al-'aql in Arabic is related to the root 'ql which means basically to bind It is that faculty which binds man to God, to his Origin.'

In Mishkat Al-Anwar Al-Ghazzali points out in discussing the verse "Allah is the light of heavens and the earth..." (Sara Nun) that the word "light" (al-nur) is used as a symbol of al-'aql because al-'aql is pre-eminently luminous in that it perceives itself as well as causing other things to be when while physical light and even the percipient spirit in the eye does not perceive itself although it allows other things to be seen.^[6] In the classical meta-physics of all of the three Semitic religions: Judaism, Christianity, and Islam: the Supreme Intellect is envisioned as the Supernal Sun whose ray touches the heart of man and affords him direct and certain knowledge.^[7]

In Islamic gnosis (ma'rifah) the heart is the seat of the intellect and the brain is the seat of reason which is indirect or reflected knowledge and is therefore symbolized by amnia-

light. However, the knowledge of the heart is direct and it implies realized knowledge: this is emphatic in the Qur'an and hadith:

Have they, then, never journeyed about the earth, letting their hearts gain wisdom and causing their ears to hear [literally, whereupon they would have a heart wherewith they might understand, or ears wherewith they might hear} yet, verily, it is not thou eyes that have become blind but blind have become their hearts within the breasts:

(Qur'an 22:46. Trans M Asad)

In the above verse "gain wisdom" is the rendering for *ya'qilun* which, of course, is the verb with 'aql as its root

The ahadith are explicit in presenting 'aql as the intuitive intellect as opposed to reason. Al-Ghazzali writes in *Ihya*:

It was also related on the authority of al-Bara ibn al-Azib that the Prophet (SAASI said, "The angels have been earnest and diligent in their obedience to God wholly through their intellect; while the believers among the children of Adam have endeavoured to do His will as far as their intellect has allowed. Consequently the most obedient among them possesses the greatest intellect." Again it was reported on the authority of Aishah that she once said, "O Apostle of God! wherein do people excel one another in this world? He replied, 'In intellect' and in the here after? She added 'In intellect', he again replied. Then Aishah said, 'But are they not rewarded according to their works?' To which the Apostle replied, 'O Aishah! Have they ever achieved anything except in proportion to what God has given them of intellect? Their works will always be in proportion to the intellect which God has given them, and their reward will be in proportion to their works.'^[8]

In the above *abadith*, the direct or presential aspect of the

intellect is clearly indicated and not the indirect and discursive reason, for a man can have rational knowledge and still be disobedient to God. In rational knowledge there is separation between the knower and what he knows: whereas in intuitive knowledge, the knower is what he knows^[9] Reason comprehends only the sensible order: it is not adequate for apprehensions supra-formal truth.

Since the rationalists reduced 'aql to mere reason not a few Sufis reacted by denouncing 'aql; Muhammad Iqbal the modern poet, is a prime example. However, Iqbal's illustrious predecessor Maulana Rumi had long before vindicated 'aql in his famous line.

[Reason (literally partial intellect) has cast a slur on intellect]

Before Rumi, Al-Ghazzali had likewise defended it. He closes his chapter "Kitabullm" in Ihya by posing a question:

You may say, 'Why then do some groups among the Sufis disparage the intellect and reason as well as the rational: end the reasonable?' You should know, then that the reason for it is that men have transferred the term intellect or reason ('aql) and the term rational or reasonable (mean!) from their real and original meaning to another and false meaning, namely argumentation and debate over contradictions and requisites which is scholastic theology. Consequently the Sufis could not tell that men have erred in this terminology, especially since it has not been possible to remove that from their minds in view of its current and well established usage. As a result they disparaged reason and rationalism. Could it be imagined, however, that the light of insight, through which God is known and the truthfulness of His Apostle is recognized will ever be disparaged or belittled when God Himself praised it? And if it were ever disparaged what other

thing could be praised?^[10]

In the modern world since Descartes, the supra-rational aspects of intellect have been denied. This initiated an "intellectual regress"^[11] which could only culminate in the negation of the ontological hierarchy of being, because the very faculty which was capable of apprehending the supra-formal orders, atrophied — this was the provenance of materialism. The modern sciences, which are so sullenly taken to be disinterested and objective, are nothing of the sort, for their interest in the world of matter is already the outcome of the negation of the greater part of reality and the individualistic denial of absolute truth. Unless and until this point is understood, and understood completely, neither can we criticize modern science properly, nor can we begin to appreciate Islamic science. We will have occasion to consider this intellectual regress more closely presently, but let us first dispel a very misleading myth.

Degenerate Residues

In an article contributed to *Journal of Islamic Science*, "The Development of Scientific Methodology by the Muslim Scientists", Hafizur Rehman Siddiqui writes that "the treasure of scientific knowledge reached the hands of the Europeans through Muslims." (p. 45) This statement is only true in part, for, while it is not to be denied the Islamic sciences gave much to the Europeans, and that what the Europeans inherited from the Muslims was the very foundation of the modern sciences; still, far from receiving "the treasure" of the Islamic Science, Europe inherited only the outward and inferior aspects of those sciences. Mr. Siddiqui proudly maintains, as do the majority of Muslims who have received Western educations, that the Muslim sciences were the

precursors of the "wonderful" modern sciences (whose worth, it would seem, is beyond question). This notion originated with European historians of science and orientalist who, because of their secularized notions of knowledge, were incapable of recognizing the real import of the Islamic sciences. Well have they succeeded in convincing Muslims that Islamic sciences, although seminal with respect to modern science, were primitive?

The stark truth of the matter is that modern profane sciences are nothing but "degenerate residues", to quote Rene Guenon,^[12] of the Islamic sciences which studied nature to see beyond it, as Dr. Nasr has said somewhere. From the traditional Islamic perspective phenomena were symbols (ayat) in the Book of Nature (Awwal l-Kitab-Allah) analogous to the verses (ayat) of the Qur'an; whereas, profane science sees in phenomena only facts. In the Islamic sciences pure knowledge was sovereign; whereas, the *raison d'etre* of profane science is the control and exploitation of nature.^[13]

This is not to say that Islamic sciences had no usefulness. Given that man is a micro-corm of body, spirit and psyche he has spiritual and intellectual needs which are of a pre-eminent order and compared to which his physical needs are trivial, for the body is only the vehicle of the soul. Nonetheless, the Islamic sciences had, secondarily, utilitarian applications. What has to be kept in mind, however, in considering the utilitarian and speculative aspects of modern and traditional science is the matter of priority. Dr. Nasr has written:

The main difference between the traditional sciences and modern sciences, however, lies in the fact that in the first case the profane and purely human remain always marginal and the sacred central, whereas in modern science the profane has become central and certain intuitions and discoveries which,

despite everything, reveal the Divine Origin of the natural world have become so peripheral that they are usually hardly ever recognized for what they are despite the exceptional views of certain scientists. The traditional sciences are essentially sacred and accidentally profane and modern science essentially profane and only accidentally aware of the sacred quality of the Universe...(p. 13).

Mr. Siddiqui has mentioned in his article only one methodology which was employed by the Muslims, namely, the inductive method. He is full of praise for this method and he proudly points out that Muslims bequeathed this methodology to the Western world. Osman Bakr has pointed out, however, that the Muslim scientists employed several methodologies. He writes:

One of the most important conclusions established by Professor Nasr's pioneering works on Islamic science viewed as an independent scientific and intellectual tradition, is that there is no single methodology that is used in that science to the exclusion of all others. On the contrary, the Islamic sciences have sought to pursue different methods in accordance with the nature of the subject in question and modes of understanding that subject. Muslim scientists in their cultivation and development of the various Islamic science, have relied upon every avenue of knowledge open to man, from ratiocination and the interpretation of sacred scripture to observation and experimentation."^[14]

There is a counter-movement within the modern scientific community, comprised of some of those most distinguished scientists of this century, like Einstein and Heisenberg,^[15] which recognized the limitations of the inductive method and advocated a "pluralistic methodology".^[16] Such scientists are half-way between the

profane modern perspective and the Islamic perspective. As such they are the natural allies of Muslim scientists seeking to reconstitute or re-define the authentic Islamic science. What desperately needs to be recognized is that Islamic science and, indeed, most ancient traditional science is not what it is made out to be, and for those who know only the Western perspective, it has to be added, it is not what it may seem.

"The idea of only one type of science of nature being possible, through the use of the Scientific Method, greatly influenced our whole way of looking at pre-modern sciences, including Islamic science. The degree of application of the 'scientific method' became the universal yardstick of the scholarly community to determine the degree of scientific creativity and purity' of the pre-modern minds."^[17] It is but one of the awesome ironies of our age that Islamic science is examined in a spirit of condescension even by Muslims themselves, for compared to the sublime perspective of Islamic science, modern science is all pomp and prattle as we will continue to show in this essay.

In the article we have mentioned Mr. Siddiqui has described some of the curious beliefs of the Greek philosophers: "Aristotle thought that putrefied meat gives rise to flies; if some pregnant mouse happens to swallow a piece of salt, all the babies in its womb will automatically be conceived." (p. 48) No doubt this will come as a shocking statement to those who are steeped in the lore of progress, but the fact is that these quaint factual errors are of little ultimate consequence. Rather, when viewed from a different perspective, it is mark of superiority, for it shows that the Greeks felt it was beneath their dignity to be overly concerned with the details of nature, because such concern was something they viewed as not particularly relevant to the

business of being a man, and, besides, they felt they had better and more important things to do: these things pertained to learning the secrets of their own being and the real nature of the universe and not just its appearance. In short, they upheld the primacy of universal principles; and their preoccupation was with them, and not so much with facts.

The principle interest of the Greeks was in metaphysics, not in physics. We are using "metaphysics" not in its debased modern connotation, where it is grossly misconstrued as either a branch of philosophy or as the primitive precursor of physics, but in its etymological, classical and legitimate sense, that is, the knowledge of supra-formal and universal pets: it which is beyond physics and on which all manifested phenomena depend and to what all sciences must be referred.^[18] "for Aristotle, physics came 'second' in relation to metaphysics, it was dependent upon metaphysic, that is to say; and was really only an apply to the province of nature of principles which were superior to nature and are reflected in her laws...".^[19] However. although Aristotle in his esteem for metaphysics, ranked it at the "foremost philosophy"^[20], he erred gravely in considering metaphysics to be in any, 'compatible to philosophy or any other science including logic and mathematics. These sciences of their indirect and contingent nature differ in kind with true metaphysics which surprises direct knowledge of the Supreme Principle and its determinations in the .usher, cal world.^[21] These principles are the real and anterior causes of all psychic and physical manifestation.

The West has laboured fur centuries under a profound misunderstanding of the real seep, .and import of genuine metaphysics Although the term has been bandied about much

men like Descartes, Spinoza, Heidegger and others no more informed than they, since the Renaissance metaphysics has been grossly misconstrued. Metaphysics is a universal knowledge a knowledge of totality. Rene Guenon remarks in emphasizing its utter dissimilarity with philosophy, psychology, mathematics, logic and all the other sciences that "the abstracted Mind cannot form a part of something nor can anything else whatsoever enfold in

—'p"s line. cyst ^[22]22 He continues to say that "it cannot be based on anything other

than itself from the very fact that it consists of the knowledge of universal principles from which is deduced including the subject matter of the various sciences."^[23] Guenon further clarifies that even logic is subordinate to metaphysics in that "what are called logical principles are simply applications and specifications in a determinate sphere of the true principles which belong to the universal order..."^[24]

Metaphysical principles (ʿāyān) are to be found within ourselves as well as in the world about us: "We shall show them our signs on the utmost horizons (al-afaq) and in their own souls (anfusihi) so that they know this verily is the truth-" (Qur'an 41:53). Azid Ibn Muhammad Al-Nasati has reported a hadith which exalts this immanent aspect of true knowledge. "When Ali asked Muhammad 'What am I to do that I may not waste my time. The Prophet answered, 'Learn I know thyself.'^[25] The sovereignty of metaphysical knowledge with respect to all other sciences, which are an application of these principles in the sensible order is most eloquently expressed by Philo the Jew late first century BC

For pray do not spin your airy fables about moon or sun

or the other obits", in the

ski and in the universe so far removed from or and so varied in their natures, until you have sentinized and know yourselves. After that, we may perhaps believe

. eea you hold forth on subjects but before you establish who your

when se do not think that you ill ever become capable of acting Mc,- ' or ;rusa-

,, i e eesses mother matters.^[26]

..a Burekhardt ill ..Jt it:n Inuddmi- a modern exponent of metaphysics. expresses the matter explicitly "all [sacred science], is contained definitively in our own soul, whose lower ramifications are identified with the realm of the senses but whose root reaches upto pure being and the supreme essence, so that man grasps in himself the axis of the cosmos. He can 'measure' its whole 'vertical' dimension, and in this respect his knowledge of the word can be adequate in spite of the fact that he will necessarily be ignorant of much or even nearly all of its 'horizontal' extension. It is thus perfectly possible for traditional cosmology to convey, as it does, a knowledge that is real and comparably master and more profound than that offered by the modern empirical sciences, even whit meter training childish, or more precisely 'human', opinions about realities of the physical order."^[27]

This last point is the crux of the matter. We have to keep in mind that not only the Greeks and Muslims, but all traditional cultures possessed, metaphysical knowledge: there is no that if they were to have learned about modern science they would not have judged it truly worthy of being called a science at all.

The Myth of Neutrality

It is the almost universal opinion of Muslims that modern science is objective neutral and harmless. This is an insufferable irony because modern science a fabne of superstition, and these superstitions are not childish and harmless like some of the supersuons for which Mr. Siddiqui has ridiculed the Greeks, but, rather, they are of the utmost consequence and of the most inordinate dimensions as we will now consider.

Those who have undergone scientific indoctrination cannot think of science as any-thing but "factual", "disinterested" "objective" and more than that. it has become the very measure of "objectivity" for they attribute on science such a high and unquestionable status that if something can be called "scientific" then it follows, that It is disinterested and factual. Further, science is universally regarded as merely a tool in the hards of then may use it for good or bad, but in itself it is believed to be nee tail' it is frehrs r, i .lira its study is harmless and that it has no connection with philosophy and ethics so what we are going to say will strike many as radical; and queer, for we hiss to point out that alpha and omega of science is philosophy.

The cornerstone of the entire scientific edifice nits the individualist outlook which vited man' to disregard his utter subordination to God and to neglect his singular duty to worship and obey God. Having bestowed upon man a new "freedom" indivualism then invited him to consider what he might do for himself in this world not as a means to Mal his religious duty, but as an end in itself. Franchs Bacon, one of the t the:, ,,t wive, in England, (1561 — 1626) called upon man to dedicate himself to mankind which could best be served by the control and exploitation of nature. His summons was milled "The Great InsutARATION" which, in

effect, was the rally call of secular humanism. It would more aptly have been called "The Declaration of the Kingdom of Man."^[28] At the same time by Des cartes^[29] announced this kingdom on the continent and the whole world rallied to his call Oblivious to Heaven, they set about busily analyzing the sensible world and in short order also announced the supremacy of that faculty which was their tool of analysis reason. Reason, however, was not adequate to apprehend the spiritual world which was at first denied and consequently, with the advent of materialism, explicitly denied The empirical science which is the outcome of illegitimate obsession with the sensible world. is marked, firstly, by the absence of metaphysical knowledge, that is, of universal principle, Cavan). and, secondly, by the negation of all knowledge which is not scientific. Science wilfully restricted its purview to the material world and then declared itself independent of any principles of a higher order.^[30] For this reason science has been called "ignorant his knowledge"^[31] — it is knowledge of a type, but banefully limited.

Recognizing current notions about the precise significance of principles, it would be imprudent not to clarify that real principles are intellectual truths of supra-formal order ('alam-i-tanzih)^[32] they are not subject to analysis, and reason has no access to them It they are perceived directly in spiritual contemplation. Real principles arc far removed from those natural laws of the physical world which because of there generality profane science terms principles. Neither are they the moral or social ideals that pass so commonly for principles today^[33] real principles are so far removed from all such trivia that the deniers of the spiritual reality can have no idea of w but they really are.

Science consigned itself to the n etculous collection of

detail it dispersed itself in multiplicity. Because of its analytic obsession with endless subdivision and rashly it doomed itself to ever more minute detail without any hope of synthesizing the prolific production of data into any ultimate meaningfulness for lack of a higher principle.^[34]

Experimentalism

Integral and genuinely disinterested knowledge concerned itself with the essential nature of things as apprehended intuitively through their implicit symbolism. Compared to such knowledge the factual knowledge of science is of no real significance and no matter how much more data might be acquired there is no possibility of a deepening of understanding so long as intellectual vision is rejected.^[35] Theories hypotheses do not in any even remotely correspond to the metaphysical principles for the explanations they can offer relate only to the sensible world.^[36] The instant they venture to explain anything in ultimate terms, for example, the origin of life, or the nature of intelligence, they become unscientific, for these things are beyond the reach of science. Only intellectual intuition is adequate to their understanding.

Moreover, theories can never be proved by facts because the same facts can always be explained by different theories. Rene Guenon points out that "certain of the pioneers of the experimental method, such as Claude Bernard, have themselves recognized that they could interpret facts only with the help of 'preconceived ideas', apart from which they would remain 'bare facts', devoid of significance or scientific value."^[37] In the West today a segment, of the scientific community has recognized the inescapable subjectiveness of the scientific method realizing that it is not so much a

question of seeing what is there as a question of seeing what they want

A nobel prize winner for Medicine writes:

"Unfortunately, we in England have been brought up to believe that scientific discovery turns upon the use of a method analogous to and of the same logical stature as deduction, namely the method of induction – a logically mechanised process of thought which, starting from simple declarations of fact arising out of the evidence of the senses, can lead us with certainty to the truth of general laws. This would be an intellectually disabling belief if anyone actually believed it.^[38] Consequently, some of the most able scientists have abandoned the inductive method and have formulated theories on the basis of qualitative factors like symmetry, harmony, and search for unity.^[39] We will shortly have occasion to return to this point.

The Superstition of Facts

What is not to be denied is the incredible development of science "along purely material lines" as Rene Guenon has put it. This development can never have more than a relative value; moreover, it is necessarily accompanied by what Rene Guenon has called "an intellectual regress", the cause and nature of which are concisely expounded in his article "Civilization and Progress" which appeared in the April–June issue of Iqbal Review. The immense applicability of science was something which the individualist spirit welcomed with a fulsome applaud, for the cardinal statute in the Constitution of the Kingdom of Man is comfort. The fantastic results of technology has been the conscious or unconscious measure of science's validity and the reason for its prestige. The impressive results have only been possible on account of

science's meticulous attention to detail and its accurate assessment of facts. These qualities quickly earned for science the reputation as "objective", "disinterested" and "factual". In short time the adjective "scientific" became synonymous with these words.

But science is not only facts. As we have pointed out, it implies a world-view; and further, it weaves theories about matters whose answers are not to be found in the physical world, like the origin of the universe and life, and the nature of consciousness and intelligence. Further the humanities which are the outcome of the quantitative technique transposed to the social realm offer answers about the nature of our inner selves. They pretend to have knowledge for the health and happiness of our souls, about the duty of man, the health of society, about the nature of religion, etc. In short, science purports to be the key to ultimate truth, and all of its presumptuous theories are stamped "scientific" and blindly accepted by the populace no matter how fictitious and impossible.

This is what can fairly be called "the superstition of facts" to quote Rene Guenon.^[40] If we might be permitted a brief digression we will cite a prime example of it; namely, the theory of evolution. Let us hear now Jean Rostand, himself a distinguished biologist and evolutionist referred to this myth:

I firmly believe – because I see no means of doing otherwise – that mammals have come from lizards, and lizards from fish; but when I declare and when I think such a thing, I try to avoid seeing its indigestible enormity and I prefer to leave vague the origin of these scandalous metamorphoses rather than add to their improbability that of a ludicrous interpretation.^[41]

What in short Jean Rostand advocates is an act of faith.

Given the "enormous indigestibility" of such an act, as he himself admits, one might fairly wonder why he cannot call upon himself to put faith in God and the spiritual origin of the world.

Recognizing that this theory stands in good stead with most Muslims, given that a whole slew of apologists has appeared enthusiastically trying to reconcile this theory with religious doctrine,^[42] we must at least point out that a staunch but firm majority of full-fledged scientists in the West has rejected this theory utterly, on purely scientific grounds. We can not digress further on this important theme in this article, but at least we can draw attention to the existence of the vocal counter-clique within the community of biologists itself.^[43]

Ziauddin Sardar, himself a scientist, remarks in the article he contributed to *Islamic Science*, "Islamic Science or Science in or Islamic Policy: what is the difference":

But scientific endeavour can be blocked by 'dogma and superstition' which do not have to come from traditional religion but can come from science itself. The belief in the pure objectivity of science and its absolute truths are no less superstitious for being modern, and the validity of the Darwinian Theory is no less a dogma for it being a fundamental tenet of belief for biologists. The appreciation of the 'dogma and superstition' barrier goes back at least to the Enlightenment, which in the event, simply substituted one set for another. (p. 32)

Having said so much, it is quite in order to return to Mr. Siddiqui's article in which he was discussing the development of science and ridiculing the ancient and medieval scientists. Let us suppose a hypothetical situation in which Mr. Siddiqui were to be confronted by the Greeks, or any other people

who dimensions of reality, and he was to demonstrate to them that their peculiar views about the mud of the Nile transforming itself into fishes and the like were sheer superstition, while at the same time informing them everything about modern science. We venture to predict that the Greeks would have been utterly stunned to hear that there was something which people called a science yet it disacknowledged the very principle of existence. So, too, would they have been astonished to learn that this science denied man the intellectual vision which the Greeks considered to be the real worth of man. Not would they have failed to immediately reply that it was not for him to criticise them for making factual errors about the material world when he endorsed a science which didn't just make a few mistakes about spiritual reality, but denied it altogether. Since for the Greeks it was intuitively manifest that intelligence was the cause of the sensible world, they could not but have been impressed that modern science was a nefarious superstition. More-over, if Mr. Siddiqui were to inform them that this science purports that intelligence arose from slime and man from apes they would have laughed all the way back to Hades.

The World as Symbol, Not Fact

Mr. Siddiqui recounts in the same article that Copernicus caused an intellectual upheaval in Europe when he proclaimed that the earth in fact moves about the Sun. M. 46) He proudly informs us that Copernicus had benefited from Muslim scholars who had known about this before him.^[44] What Mr. Siddiqui does not tell us is that although Muslim astronomers like al-Biruni knew about the earth's motion around the Sun they suppressed this knowledge and

continued to follow the model proposed since ancient times by the Greek Ptolemy in which the earth was envisioned as the centre of the universe. This is most significant and it is in order in this connection to quote Dr. Nasr at length:

This later tradition of Islamic astronomy continued to correct the mathematical short-coming of the Ptolemaic model, but it did not break the bounds of the closed Ptolemaic system, which was so intimately tied to the medieval world view. It is true that many of the later Muslim astronomers criticized various aspects of Ptolemaic astronomy. It is also certain that such astronomers as al-Biruni knew of the possibility of the motion of the earth around the sun; and even — as al-Biruni proposed, in his questions to Avicenna — the possibility of an elliptic rather than[circular motion of the planets. But none of them did, nor could they, take the step to break with the traditional world view, as was to happen during the Renaissance in the West — because that would have meant not only a ration I n astronomy, but also a upheaval in the religious, philosophical and social domain. No one can overestimate the influence of the astronomical revolution upon the minds of men. And as long as the hierarchy of knowledge remained intact in Islam, and scientia continued to be cultivated in the boss in of sapientia, a certain "limitation" in the physical domain was accepted in order to preserve the freedom of expansion and realization in the spiritual domain. The wall of the cosmos was preserved. in order to guard the symbolic meaning which such a walled-in vision of the cosmos presented to most of mankind It was as if the old scientists and scholars foresaw that the breaking of these walls would also destroy the symbolic content of the cosmos, and even obliterate the meanine of "cosmos" (literally order) for the great majority of

men, for whom it is difficult to conceive of the sky as some incandescent matter whirling in space and at the same time as the throne of God. And so despite all the technical possibility the step toward breaking the traditional world view was not taken, and the Muslims remained content with developing and perfecting the astronomical system that a been inherited from the Greeks, Indians and Persians, and which had become fully integrated into the Islamic world view.^[45]

In the passage just quoted Dr. Nasr describe that Muslim intellectuals were men of too much insight and prudence to break the traditional picture of the cosmos which had prevailed since ancient times. Muslim, scientists realized that Grid had made the world and all that is in it as a symbol to tealy, man about Himself and the Unseen (al-ghayb). Whatever was normally before, our senses was symbolically sufficient. Thus if it appeared to man on earth that the Sun moved around the earth and that the earth was the centre of the creation this was the perception on symbolically correct and efficacious. Maulana Mahmud Jonpuri, a contemporary Aurangzeb, wrote in his Shansi Bazigha that it is not phenomena which are important but symbols and he forbade changing the representation of phenomenon what he said explicitly a Catholic Cardinal said impiety, for when Galileo invited the Cardinal to look through his telescope' that he might himself see that the world moved around the Sun he refused to look and remanned silent; his silence was eloquent.

Dr. Nasr mentions in his article while discussing traditional astronomy that it has a history which predates the school of ancient Babylonia by millenia op. 19) Astronomical schools were developed by almost every people of the world including the Chinese, the Aborigiues of Australia and the Aztecs and Mayas of ancient Mexico and Central America Dr.

Nasr remarks:

All of these schools remain faithful to the study of the heavens as they appear to man on earth where in fact he is and not as they might appear to him were he to stand on the Sun or outside the solar System. That is why their symbolism is not it all logically affected by the Copernican revolution even if this revolution did in fact help to cause the eclipse of that knowledge to which traditional astronomy points in its symbolic aspect.

Besides practical considerations of agriculture and the like, the 'usefulness' of traditional astronomy was to enable man to orient himself in the cosmos with the purpose of preparing himself to journey beyond it.¹⁴⁶ the practical spiritual import of this aspect of astronomy is evident from Australian Aborigines descriptions of the heavens to the *Divine Comedy* of Dante. As far as the great civilization of antiquity and the Middle Ages are concerned, however, it is the system of concentric spheres developed in two different fashions by the Greeks one by Aristotle and the other by Ptolemy on the basis of the works of their predecessors such as Eudoxus, which are of particular interest. These systems depict through their symbolism, the hierarchic nature of cosmic reality and man's place in this hierarchic scheme as a being located centrally but on the lowest level of reality, veiled from the splendour of the Divine "Throne" by the levels of cosmic manifestation sympathized by the various spheres associated with the planets and the used stars (p 19.)

Sages and "Charcoal Burners"

Mr. Siddiqui briefly describes the careers of some of the outstanding Muslim scientists. He tells us how much the Muslim carried out experiments, what discoveries they made

and what were the useful applications. As we had occasion to remark, the spirit of traditional science were symbolize: their real concern is with the essences of things. The mundane aspects of the tradition sciences were peripheral and accidental, but it is precisely these aspects that have impressed the modern spirit. What Mr. Siddqui is presenting is a supposed evolution of science to which Muslims made early and brilliant contributions. Umar Khayyam and Jabir Ibn Hayyan figure in this parade of personalities as if they were science's first "big stars". This is inexcusable for both these figures were versed in the Islamic intellectual tradition. The sciences of astrology and alchemy which they took interest in were the antithesis of the modern sciences.

Astrology and alchemy for several centuries now have universally been considered to be the crude and superstitious forerunners of modern astronomy and chemistry are profanizations of these sciences and their parody. The smallest part of these traditional sciences soars beyond the reach of moderns who are ignorant of the real impart al the intellect and art metaphysics. Dr. Nasr describes in his article (p. 19) that astrology originally comprised astronomy as well, but as the symbolist spirit became increasingly eclipsed the science bifurcated.^[47] On the one hand, astronomy become concerned with the outward phenomena as facts; while on the other hand, astronomy became concerned various stages of degeneration^[48] so that its essential nature finally became lost altogether leaving only a derelict^[49] of itself: The attempts to resuscitate astrology in recent times have concerned themselves with the restoration of the most inferior aspect of the ancient science, namely divinization.^[50] Formerly and essentially, astrology was a science reflection immutable truth. The object of its study was spiritual realization as Dr. Nasr art

its study was spiritual realization as Dr. Nasr discusses in some detail in his article (pp. 19-20). Alchemy like astrology considered the contingent world as "a consequence and outward manifestation of what belongs to a higher order."^[51] Its teachings, as astrology's, were constituted in accordance with the laws of natural symbolism with the intention that their study should effect "a transposition into the purely spiritual realm."^[52] At the risk of prolonging this essay too much, we will again quote Dr. Nasr at length to give a concrete glimpse of a traditional science and its associated symbolism. Hopefully it will suffice to give a taste of how integrally intellectual is involved in traditional science:

In a sense the terrestrial image of astrology may be said to be alchemy which also deals with those "intelligent" forms of matter called metals. That is why metals in fact possess the same symbols in alchemy as their astrological counter-parts (for example Saturn lead, Sun, gold, Moon, silver).^[53] But traditional alchemy is not only a science or art which seeks to transmute various substances and metals into gold. Alchemy is one of the most extensive encompassing of the traditional sciences it is related at once to cosmology. Medicine the science of substances and psychology.^[54] Alchemy, like astrology, is based on a primordial vision of the earth as a living being in whose bosom and with the help of celestial influences grow the metals which send outside of the natural order. The metallurgist is like a gynecologist who delivers the metal from the womb of the earth and who, with the aid of spirit forces is able to quicken the process by which this event takes place.^[55] The major traditions of alchemy namely the Alexandrian with its roots in the ancient Egyptian tradition, the Chinese, the Indian, the Islamic and the westerns all grew out of this ancient science here once again art if we remember

that must traditional sources both Arabic and Latin, call it art – *sina ab or ars*). These later traditions, despite the differences between them and including the Chinese, which emphasizes the gold-making juice as the elixir of immortality,^[56] all shared the basic principles which saw metals as special states of 'matter' with a common substratum and ready to be transmuted into the highest state which is that of gold provided the philosopher's stone be present. But they also knew that this external transmutation was no more than support for that inner transformation of the lead of the soul into the gold which alone can resist the withering influences of this world. They were also fully aware that this inner transformation was only possible through the presence of the spiritual master who is the real philosopher's stone.

This does not mean that alchemists did not make use of external substances for support as so many Hermetic authors assert. Alchemy was certainly a way of ennobling matter, its relation to sacred art. But this also means that alchemy is not just a prelude to chemistry, that it is a science of the soul in its relation to the cosmos and making use of external transformations for the sake of that inner transformation which is the ultimate goal of all traditional sciences.^[57] (p. 21)

Rene Guenon also recognized the legitimacy of alchemy' and, further, he demonstrated that alchemy has little in common with modern chemistry^[58] modern chemistry is a 'corrupt residue of the alchemical tradition.'^[59] The provenance of chemistry is the degenerate version of alchemy which was practiced as early as the Middle Ages by men who were impervious to its symbolism. These people understood the science literally, comprehending in it only a manipulation of matter. They earned the disdain of their symbolist counterparts who referred to these debasers of the science as

"blowers" and "charcoal burners".^[60] The outstanding offender in Islam was the heterodox physician-chemist Zakariyyah Razi.

Dr. Nasr discusses briefly in his article several other traditional sciences: cosmology, language, arithmetic, music, geometry, medicine, pharmacology, natural history and sacred geography.^[61] If it were not for a shortage of space, we could compare the traditional perspective with the modern perspective in the foregoing sciences, as we did in a cursory fashion with astrology and alchemy, and show that in every case the modern counterpart is a derelict residue of a once transcendent science the nature of which modernist thinkers are far from even imagining. Dr. Nasr explains in his article that all traditional sciences related the contingent facts with which they were respectively concerned to "higher planes through the language of symbolism". (p. 14) The eclipse of the symbolist understanding in modern times in the Muslim world, as well as the West, has rendered the traditional sciences incomprehensible to almost all of our contemporaries, Muslims as well as Westerners.

Wisdom or Magic

The views we are advancing about modern and ancient science will no doubt strike those who have received indoctrination in the dogma of progress as totally outrageous, and our opinion is likely to be branded as "anachronistic". People, including the average Muslim, generally imagine our era as a new age, an age of advancement and enlightenment. They make the mistake of judging the worth of this era in light of material considerations instead of spiritual and intellectual considerations. The belief in an essential progress stands in contradiction to the teachings of Islam which

unequivocally insist on the inevitable degeneration of mankind. One of the salient motifs of the Qur'an is the degradation of peoples and their civilizations, with the passage of time, by which they earned eventual destruction or, in the case of the Jews and Christian, the abiding curse of Heaven:

Is it not time that the hearts of all who have attained to faith should feel humble at the remembrance of God and of all the truth that has been bestowed [on them] from on high, lest they became like those who were granted revelation aforetime, and whose hearts have hardened with the passing of time so that many of them are now depraved? (Qur'an 57:16, Trans. and interpolations by M. Asad.)^[62]

The Prophet (SAAS) warned that the degeneration which the foregoing Qur'anic verse, deprecates was also an inevitability for Muslims: "You will follow the people before you, foot for foot' inch for inch, to the extent if they crawl into a reptile's hole you will crawl in after them.

The Qur'an swears that mankind shall be divided into three sections on Judgement Day: among them the foremost (sabiqun) who are those "who were always drawn close unto God"; then it declares that they are "a good many of those of olden times, but (only) a few of later times".^[63] Muhammad Asad, the translator quoted here, aptly comments in a footnote: "The above stress on the 'many' and the 'few' contains an allusion to the progressive diminution, in the historical sense, of the element of excellence in men's faith and ethical achievements."^[64] When the Muslims of the first generation complained to Anas of the atrocities which Yusuf al-Hajjaj was perpetrating, he told them a hadith: "Show endurance not an age will come upon you except will be followed by a worse age till you meet your Lord."^[65] In

addition there are a whole class of ahadith concerning the occurrence of the Great Turmoil (fitnah) which will herald the last hour. This turmoil is characterized in particular by ignorance, social upheaval, injustice, massacre, and profanity.

Apart from contradicting Islamic tradition, the pretension of progress is an inanity, and an offence to genuine intellectuality. Rene Guenon has shown its preposterousness in a chapter in *East and West*, "Civilization and Progress". In this chapter he calls "Civilization" and "Progress" the twin idols of modernity and he elaborates:

Certainly "Progress" and "Civilization", with capital letters, may be very effective in certain sentences as hollow as they are rhetorical, most suitable for imposing on a mob, for which words are rather a substitute for thought than a means of expressing it, thus it is that these two words play one of the most important parts in the battery of formulae which those "in control"^[66] to-day use to accomplish their strange task of collective suggestion without which the mentality that is characteristic of modern times would indeed be short-lived. In this respect we doubt whether enough notice has ever been given to the analogy, which is none the less striking, between, for example, the actions of the orator and the hypnotist (and that of the tamer belongs equally to the same class); here is another subject for the psychologist to study, and we call their attention to it in passing. No doubt the power of words has been more or less made use of in other times than ours; but what has no parallel is this gigantic collective hallucination by which a whole section of humanity has come to take the vainest fantasies for incontestable realities; and, among these idols of modern worship, the two which we are at the moment denouncing are perhaps the most pernicious of all.^[67]

This is not the place to further consider the absurdities of the notion of progress. We refer the reader to Rene Guenon's article, cited just now as well as his other writings and the writings of S. H. Nasr, H. Smith, E. F. Schumacher, Lord Northbourne and G. Eaton.^[68]

Some may be thinking that our opposition to the idea of "progress" and modern science together with our exoneration of ancient science is all a very romantic and exotic mystique to be conveniently discarded as mystical sophistry or magic mongering or my theology or neurosis or reactionism. They would fully agree with the following supercilious dismissal of the symbolist perspective:

Some rare Aristotelians still perhaps think they can attain intuitively, though some illumination by the active intellect, the essential ideas of the things of nature, but this is nothing but a lovely dream...^[69]

This remarks was made by a modern theoretician of science. He goes on to make an exultant remark to which all champions of modernism would agree:

"The essences of things cannot be contemplated, they must be discovered by experience, by means of a laborious work of investigation."

Imam al-Ghazzali answered a similar pretension centuries ago in *Tahfut al-falasafah*: "The secrets of the kingdom can not be scanned by means of such fantastic imaginations so these; Allah gives none but His Prophets and Saints to scan them and that by inspiration not by demonstration."^[70]

Titus Burckhardt who quotes the theoretician above also gives his own eloquent rebuttal:

To this a Plotinus, an Avicenna, or a Saint Albeit the Great would answer that there is nothing more evident in

nature than the essences of things, since these manifest themselves in the very 'forms'. Only, these cannot be discovered by a 'laborious work of investigation' nor measured quantitatively, but the intuition that; grasps them leans directly upon sensory perception and upon Imagination in as much as the latter synthesizes the impressions received from outside.^[71]

Rationalist Presumptions

In an editorial given in *Islamic Silence*, "From Chaos to Order". Mr. Mohammad Zaki Kimani, the editor of the journal, calls for us to "broaden the scope of progress to provide for the overall well-being of man' and "to harmonize in material prosperity with primordial truth" (p. 71) further, he tells us in another article "New Ideologies in Science", that the philosophical foundation of S & T 'Science & Technology is still taken wrongly he means] as sacrosanct and is still considered neutral, objective and universal... an ideological group can make use of it without seriously affecting the basis of its civilization." (p. 71) This raises our hopes for we anticipate an apt and profound criticism. However, he is soon to show us that he does not understand what Islamic epistemology actually implies, nor what is necessary for the real well-being of man, it wherein and how science is not objective and neutral, and how actually it powerfully corrodes the Islamic personality. In his second article he tells us that science is not neutral simply because it is directed by the politico-industrial complex this observation is anticlimactically: Kirmani completely fails to understand that science is no neutral and objective because of its rationalist, humanist, and evolutionist bias. Having put in question whether science is sacrosanct, he later unequivocally reveals

that he doesn't actually doubt its disinterestedness, but merely deplures its misuse by technocrats who only care to raise the standard of living without considering "the overall well-being". He makes it quite clear that this "overall well-being" is to be construed in economic and social terms. There must be a more "equitable distribution of the advantages of S & T 71) and scientific and technological development must be guided by "a new socio-economic and political order". (p. 71) All this betrays a rationalist, humanist pretension which imagines that the ills of society can be remedied by establishing virtuous leadership, by curing society according to prescriptions prepared by humanists and by giving the most socio-economic advantages to the most people. Kirmani is talking in terms of society and state and this amounts to denying the primacy of the individual. This is the universal and sovereign error of modernity, for this shift in emphasis promotes secularization in a powerful way as we will presently clarify.

It needs to be asked of Kirmani and those who share his views why they are so pre-occupied with how to Islamize science or how to use it in our best interest when they have not even considered the question of whether or not we need science at all. Kirmani presumes beforehand that science is a reality which we must at all costs assimilate. If we are really after truth, we must discard the usual individualist and humanist assumptions and consider if we were really put on this earth to make ourselves as comfortable as possible (taking time out to occasionally thank the Creator for giving us the power to dominate earth), for the Islamic revelation emphatically declares that the earth was made subject to us not that we could do as we please, but only as a means to the end that we worship God.

"All that is in this world is cursed except the

remembrance of God and what is in his way and the learned and seekers of learning.^[72]

How futilely people pander the rationalist dogma nowadays. We are being told from every quarter that human understanding may presume to determine, social, economic and political goals to which we can reorientate religious thought; which is to say, in effect, that reason stands in judgement over religion. However, this secularist premise powerfully under-mines the order and security that society normally should provide. (Lai Eaton has made the following astute observation:

...we still have to learn that a good and ordered society will never be built by those who make the creation of such a society their principal aim; the truest creative work is done as it were absentmindedly and a society can only arise as a by-product of action, thought and feeling which aim beyond the contingencies of human life, having their goal in eternity. No man achieved sanctity through wanting to be a saint; but 'seek first the kingdom of Heaven' as helical quoted is not only a maxim for saints: it is an essential condition of all political action if that action is to escape the fruitless and monotonous round of chasing its own tail in an increasingly narrow circle.^[73]

Those who believe that the need of science is a foregone conclusion are those who have accepted the basic tenets of secularist humanism or what can be called humanitarianism of which Frithjof Schuon writes-Philosophical humanism which in the long run in atheistic starts from the erroneous notion that man is by definition good and that they are thus none that are fundamentally evil; that there are no values incorruptible incompatible with earthly well-being and that what contradicts the human individual and his comforts

cannot be good. True charity may sometimes run contrary to the immediate interests of men and also to earthly well-being.^[74]

Most of the intellectual contusion of modernity would resolve itself if we would only ask the right questions and orientate ourselves properly and the first question is the Divinity: "He is the first and the last" Qur'an 57 4) Islam and all other religions declare categorically that the primal duty of man is to worship God and in that is our only fulfillment, for man was created with a raging thirst for the Divine.^[75] Since this is the case the know-ledge of how to worship God is what is incumbent upon as first: "Seeking knowledge is obligatory for every Muslim man and women."^[76] Al-Ghazzali shows with impregnable logic that obligatory knowledge (fard'ayn) pertains to our obligations to God which includes, not only how we should worship God, but also the avoidance of sin, including the hidden vices like pride, greed and envy.^[77] Some knowledge is optional or conditionally mandatory like medicine but it is blameworthy to acquire this knowledge before knowledge which is fard'ayn. A most significant consequence follows from this theological premise: the education of the individual which means pre-eminently the purification of the soul (tazkiyyali naffs) and the cleaning of the heart (tasfiyyah. qalb), is more imperative than social and political reforms. Notwithstanding the benefits these latter may furnish. If a society does not cultivate virtuous and knowledgeable individuals, it will be corrupt in spite of what en-social political or economic reforms may be forced upon it from above as it were for it is necessary to build from the bottom up, not vice versa.

Further, some knowledge is useless This will be hard for modernist Muslims to accept because they have become quite

accustomed to glorify every idle academic endeavour and even adduce hadith to sanction their pursuits - how often we hear modernists quoting the hadith 'Seek knowledge even onto China'^[78] They conveniently forget that the Prophet (SAAS) frequently sought refuge in God from useless knowledge.^[79]

The thesis that knowledge can be useless and blameworthy is sure to summon a barrage of objections from secularist and modernists, quarters. These objections have already been confuted by al-Ghazzali who centuries ago hobbled the errant enterprise of rationalism:

"Do not then be a seeker of sciences which the law has pronounced blame-worthy and against which it has warned. Rather, be steadfast in emulating the example of the companions and follow nothing but the usage of the Prophet (SAAS), for safety lies in obedience, whereas in adventure and aberration lies danger. Do not also boast much of your so-called opinion, reasonable judgement, proof and evidence, as well as the claim that you investigate into things in order to find out and determine their true nature and that there is no harm in the pursuit of knowledge. Truly the harm that might befall you there from would be greater than the benefits. Many are those things whose knowledge is harmful to you the extent that it might ruin you in the hereafter unless God should interest with his Mercy."^[80]

If we don't conform to the exigencies of our theomorphic nature, we will not find meaning or stability or repose anywhere else. The Prophet (SAAS) said in a hadith:

The son of Adam has a piece of his heart in every ravine. Whoever chases after all the pieces Allah does not care in which ravine He destroys him. Whoever trusts in Allah, He will suffice him for all the pieces. (Ibn Majah: `Abwab al-

Zuhd: Bab al-Tawakkul wa I-Yaqin').

What holds for the individual, holds for society since society is the sum of its individuals. Virtue must be instilled in society ab in tra, not otherwise.

Al-Ghazzali Needs Revival

Ironically Kirmani in a third article, "Ghazzali Needs Revival", (p. 83) has called for a revival of Al-Ghazzali precisely because he believes that Al-Ghazzali was quite in favour of the sciences. Al-Ghazzali fully appreciated that the sciences were exact He chastises those religious apologists who sought to disprove mathematics as untrue and warns them that this attitude does more harm to religion than good. Al-Ghazzali pointed out that people who know the incontrovertible nature of mathematical proof will imagine that the "foolish" arguments of religious votaries against science reflects an unreasonableness inherent in the religion itself and so will come to doubt religion.^[81] People, however, jump to the conclusion that Al-Ghazzali therefore supported the sciences. Indeed, Kirmani's "proof" of Al-Ghazzali's support of science is the fact that Al-Ghazzali was of the view that if an astronomical observation or a mathematically derived principle appears to contradict a hadith, the latter should be rejected". (p. 83) The inconsequence lies in the conclusion that because Al-Ghazzali knew science was factually correct he supported it This is to ignore that science also propounds a world-view, and it is in this respect that Al-Ghazzali opposed the sciences as is shown from the passage quoted above Ziauddin Sardar points out that Ahsan Jan Qaisar "particularly singles out Al-Ghazzali and argues that his epistemology will 'lead all scientific investigations into a cul-de-sac'." (p. 38) Sardar realizes what Qaisar says is correct,

nonetheless, he quite applauds the wisdom of Al-Ghazzali "for foreseeing the course that rationalism untamed by a framework of values could take and for developing an epistemology which cannot be surpassed even today for its intellectual rigor and relevance." (p. 38) Although Sardar rightly supports Al-Ghazzali, he does not bring out clearly why Al-Ghazzali opposed the sciences. Al-Ghazzali knew that the factual reliability of science and the exactness of mathematical proofs beguiled the scientists into believing that the agnostic and materialist philosophy which the philosophers propounded must also be correct since these intelligent men were the founders of the other sciences:

This is a great drawback, and because of it those who devote themselves eagerly to the mathematical sciences ought to be restrained. Even if their subject-matter is not relevant to religion, yet, since they belong to the foundations of the philosophical sciences, the student is infected with the evil and corruption of the philosophers. Few there are who devote themselves to this study without being stripped of religion and having the bridle of Godly fear removed from their heads.^[82]

A few remarks are in order here. In Al-Ghazzali's day the philosophical sciences referred to that decadent aspect of Greek thought which Muslim rationalist philosophers presented to the Muslim world. These are distinct from the sacred Islamic science which we have been discussing. In fact, Al-Ghazzali has himself expatiated on several of the traditional sciences elsewhere, including arcane sciences such as numerology and astrology, and has been criticized for doing so by people who did not see the difference between profane and sacred and so believed that Al-Ghazzali publicly denounced certain sciences but privately endorsed them.^[83]

Al-Ghazzali's Theory of Knowledge

As we mentioned, Kirmani has called for a revival of Al-Ghazzali in the quite mistaken belief that Al-Ghazzali was a supporter of the sciences. However, this is not the only point in which Kirmani misrepresents Al-Ghazzali for he also claims, as have the orientalists and even certain Muslims of late, including the poet Muhammad Iqbal,^[84] that Al-Ghazzali anticipated Descartes and the modern skeptics in advocating that "systematic doubt" was the key to objective knowledge:

"It was really ironical that his critics overlooked his method of doubt which was echoed by philosopher – scientists in the West as well." (p. 83)

Ziauddin Sardar points out in his article in *Islamic Science* (p. 32) that during the Enlightenment the European philosophers were looking "for new attitudes towards knowledge. From science they acquired the skeptical attitude of systematic doubt..." The philosophers were impressed by the exactness of the sciences and the soundness of its proofs. In other words they were mesmerized by the mystique of facts, and they wanted to imitate as much as possible the ways of the scientist. Knowing this we can get an idea why Kirmani, whose stance is fundamentally "scientistic", himself endorses doubt as a system. His attempt to show that Al-Ghazzali has sanctioned the method of doubt is a sanctimonious attempt to present a profane mode of thought as intrinsically religious.

A thorough refutation of this tendentious view was given by Osman Bakr, "The Meaning and Significance of Doubt in Al-Ghazzali's Philosophy".^[85] What Bakr shows in that article, which meticulously examines Ghazzali's concept of doubt as it is presented in *Munqidh Min al-Dalai* (Deliverance from

Error), is that Ghazali never doubted the existence of certainty.

Al Ghazzali himself writes of his intellectual crisis:

The disease was baffling, and lasted two months, during which I was a skeptic in fact, though not in theory nor outward expression. At length God cured me of the malady; my being was restored to health and an even balance; the necessary truths of the intellect became once more accepted as I regained confidence in their certainty and trust-worthy character.

This did not come about by systematic demonstration or marshalled argument, but by a light which God most high cast into my breast. That light is the key to the greater part of knowledge. Whoever thinks that the understanding of things Divine rests upon strict proofs has in his thought narrowed down the wideness of God's mercy.^[86]

This statement in itself is enough to confute the view that Al-Ghazzali advocated the skepticism of the profane modern philosophers who doubt the existence of supra-rational knowledge and even the existence of God. Al-Ghazzali's doubt concerned only how to obtain infallible knowledge. He was certain of its existence, but in doubt about how to obtain it. Therefore, he set about examining sense impression and then reason finding both of these sources of knowledge devoid of the certainty he was seeking.^[87] His reason left him no choice but to postulate a supra-rational, intuitive faculty capable of the direct vision that is spoken of by the Sufis^[88] and indicated in ahadith, for example, the famous and frequent prayer of the Prophet (SAAS) "Our Lord shows us things as they really are."^[89]

As we just saw above, Al-Ghazzali had an experience of this type of knowledge that removed his doubt. The real

significance of Munqidh Min al-Dalai is that it furnishes an incontrovertible argument "with a view of impressing upon the rationalists that Islamic epistemology affirms the existence of supra-rational perceptions as the real key to knowledge."^[20]

Al-Ghazzali emphasized this for the rest of his life.

Mystifiers, Deviants, and Myth-Mongers?

Ironically, Kirmani has advocated the revival of Al-Ghazzali's thought, yet he is dead set against Al-Ghazzali's very methodology of knowledge, for he repeatedly inveighs against the supra-rational perception of reality. A prime example is the following garbled passage which clearly betrays his rationalist imperviousness:

And mystical experience, in fact, is nothing more than a psychological deviation based on the denial of sense perception. Thus a contrast between science and mysticism is evident "(New Ideologies on Science", p. 70)

Obviously, this is begging the question – but also it is a most unworthy recourse to the re-ductionist tactics of profane psychologists, and orientalists who would glibly sn for example, that even Jesus (SAAS) and Muhammad (SAAS) were given to psychotic hallucinations, or epileptic trances, or they starved themselves delirious - and in this way they explained away their revelation (We seek refuge in God from it.) Kirmani goes on to say:

Mystical interpretation of science indicates a kind of mystification of science. It simply means going back from knowledge to speculation from science to mythologies. In the context of methodology it amounts to 'disbelief' in observation and experimentation- if this approach... is allowed to proceed it may emotionally satisfy a chosen few,

but it will adversely affect the growth of civilization and culture (P. 70)

This passage is also quoted from his article "New Ideologies on Science" which, judging from the authors or the bibliography: Franz Capra, E. F. Schumacher, Jonathan Schell etc; refers to the ideas of an emerging school within the community of Western scientists who have seen the inadequacy of the inductive scientific method and have invoked instead principles of a metaphysical and cosmological order.^[91] "This school includes some of the most capable and celebrated scientists of the era."^[92] Dr. Seyyed Hossein Nasr writes in *Knowledge and the Sacred*.

Most of the major discoveries of physics since Einstein's 1915 theory of special relativity was announced have been the result not of induction or empirical observation but the consideration of aesthetic factors, search for unity, symmetry, and harmony. Few often have well-known physicists proposed a theory which they have supported because it was mathematically speaking more "elegant"! Why is there this search for unity in the study of the laws of nature and, in fact, the attainment of ever greater or higher stages of unity? What about the appeal of Einstein in 1905 and Dirac in 1929 to symmetry, leading respectively to the special theory of relativity and anti-matter, long before experimental evidence could be provided? Finally, how can one evaluate the so-called Pythagorean period of modern physics covering the era from Bohr to de Broglie, when very important contributions turned on Pythagorean harmony and with full knowledge of musical harmony were made to modern physics?

Dr. Nasr reminds us that metaphysical principles can never be proven through physics, but rather, ultimate

significance of physics can be grasped only through metaphysics." That is why today in the community of physicists, quite a commotion is being made by men like F. Capra, author of *The Tao of Physics and The Turning Point* author of *wholeness and the Implicate Order*, R. Linssen, *Le Rouddbisme et le Science Moderne*; R. G. Sin. *The Tao of .Science*, M Talbot, *Mysticism and the New Physics*: E wigner, *Symmetries and Reflections* W. I. Thompson, *Passage About Earth*. (This last book describes the establishment of a research foundation for the study of Eastern Wisdom and Western Science.) For these men have realized that the principles by which the physical realm can be interpreted are beyond the physical realm. Further, they have realized that the inductive methodology is not adequate to the apprehension of these principles. These considerations constitute, for them at least, a new frontier.

Load Northbourne has described the dilemma which confronts the "frontier physicists".

What the physicists have discovered is precisely this: the more closely one tries to isolate and to examine as such the material on which the ordering of the inverse is its it were imposed the more nebulous, chaotic, disordered, or causeless does that material appear to be this discovery (if that is the right word for something that has hitherto been axiomatic) has misled many people, including scientists and philosophers in to supposing that the universe as it whole is fundamentally chaotic: and not Mc appearance of and old which life is the most complex development is attribution to fortuitous combinations of events that are in themselves to fortuitous. All that the physicists can rightly be said to have demonstrated is that the principle of order does not reside in the material aspect of things. That idea lacks novelty, to say

the least of it; it is indeed an essential part of all religious and traditional conceptions concerning the origin of the universe.^[23]

These thinkers are, in fact, coming close to restoring a sacred aspect to science. That precisely is what a genuine Islamization of science must also endeavour to do (and much more as well, however). It is therefore most disheartening to see Kirmani sanctimoniously dismissing these top echelon scientists, as myth-makers, deviants, mystifiers and debasers of science. They are Muslims natural allies in the onerous task of the de-profanization of modern science.

Sour Grapes

We may surmise the real reason Kirmani opposes the "mystic" Western scientists from what he writes:

"What some scientists-turned-mystics have produced in the West does speak of their excellent creative power. Nevertheless, the logic behind these works being based on a mystical interpretation of science, surpassed natural human apprehension and becomes an exercise in astonishment." (p. 70)

What Kirmani here admits is his incapacity for synthetic thought. Many men have not had this aptitude, but, nonetheless, they showed deference to those who were specially gifted by God and accepted their authority in matters which, because of their supra-rational nature, they could not fathom themselves. Kirmani however, with one sweep of his pen dismisses not only an elite cadre of some of the most distinguished scientists of the twentieth century like Dirac, Openheimer and Capra, but also the authority of the greatest scholars and saints of Islam who were mystics like Shah Waliullah, Ahmad Sirhindi, AI-Ghazzali, and Junayd.

The folly of the rationalist always is the denial of what he can not experience. His incapacity does not prove the impossibility of its existence; this takes humility to admit. The bane of the rationalist is immortalized in the fable, of the fox and the grapes:

A fox could not reach a bunch of grapes high on a vine no matter how much he tried. Finally it told itself that it didn't matter since those grapes were surely sour.

Muslim Scientists Stubbornly Insist on Progress

There is among the modern "reformers", be they secularist or religious, a common pre-occupation with social and economic goals which are determined by mere human understanding and amount to no more than the assertion of the individualist obsession, for worldly comfort sanctimoniously decked out in humanitarian polemic. We quoted Kirmani's invective against the mystic-scientists above, in which he ended by saying, in effect, that this new breed of scientists may derive some emotional satisfaction, but that their "debasement" of science "will adversely affect the growth of civilization and culture. Science and technology which, in fact, indicates the level of cultural progress, if neglected, would mean too big a price for spiritual satisfaction." (p. 70). Clearly he shows himself to be mesmerized by "Progress" and "Civilization" and we don't hesitate to affirm with Rene Guenon that these are the twin-idols of the twentieth century, nor should we hesitate for by them Islam is being undone.

Kirmani shares his material concerns with the Chief Editor of Journal of Islamic Science, Mr. Hisamuddin Farooqi, who also has no question about the necessity and worth of the study and development of science and

technology, but only hopes that Muslim scientists can "regain pride of place in the contemporary world". In other words he hopes that they can outdo the Westerners in their own profane science. Mr. Farooqi qualifies himself insisting that Muslim scientists must instill a moderating element into their enterprise by adherence to the principles of "Reality, Truth, and Divine Guidance" (p. 6), but this essentially and significantly is as an afterthought Whether or not science may be inadequate for total truth is a question he doesn't consider. We note that under the "Aims and Objectives" of the association for whom the journal is a mouth-piece; namely, the Muslim association for the Advancement of Science, which their first aim is to foster the study of science anus, the young. Their further aims are elaborated under five additional points in all of which it is clearly the aim to propagate the sciences albeit they avowedly advocate modifications to make science meet "spiritual and moral requirements of human beings" and to make it consistent with the needs of "human nature" and to provide a foundation with a "religious term of reference." (p.86). These proposals are self-contradictory and, in effect, constitute impossibilities. Scientism engenders spiritual opacity; its influence stifles the intelligence and promotes secularism in a powerful way. When man is properly recognized as unique for his capacity of spiritual insight and vision and his supreme object is envisioned as the know-ledge of God, science will be seen for the "ignorant knowledge" that it actually is.

There have been of late four or five international conferences on the subject of Islamization of science and technology. In 1983 the conference was held in Islamabad and in 1984 in Kuala Lumpur. There was a report of the conference in Kuala Lumpur in Islamic Science (p. 87) in

which the details of past conferences were given and mention was made of various organizations concerned with this cause, including the International Institute of Islamic Thought in Washington, whose director is Mr. Ismail Raji al-Faruqi, author of a booklet titled *Islamization of Knowledge*.^[24] The conference "affirmed" that since the Islamic sciences had a seminal influence on the present Western sciences, these sciences as they say) are already "very much Islamicized and therefore, Muslims should fully and readily appropriate it" (p. 88) by an adequate Islamization, envisioned as a superimposition of Islamic values. Again material development is the unquestioned goal.

A genuinely Islamic science is constituted on metaphysical principles and these principles are reflected in the laws and phenomena of nature: the aim of the study of nature is the direct knowledge of the principles.

In a certain respect it is impossible to transmute the spirit-denying monstrosities of profane science into Islamic Sciences by subordinating them to Islamic principles, because as Rene Quenon has remarked if these sciences were really referred to a principle they would for that very reason cease to be what they are — profane, Western sciences — and become what they should be, contemplative supports for understanding what is beyond the natural world. That is the would be become realistic and because they would not ignore the greater part of reality as do the profane sciences they would be super-eminently useful in salvific intellectual and spiritual terms and not merely in the trivial material sense in which usefulness is comprehended by individualists.

An authentic restitution of science implies such a profound change of perspective as will not brook the effete partisanship of pernicious myths like "progress" and

"civilization".

The Relevance of Islamic Science

The relevance of authentically Islamic science is not in answering the problems of the modern world which are due to modern man's "stubborn attempt to live by bread alone" but in showing us that the problems are only apparent, the result of incorrectly posed questions. When the right questions are asked these problems are seen not to be problems in the first place.^[95]

Z. Kirmani, Hisamuddin Farooqi, the International Institute for the Islamization of Science, the Muslim Association for the Advancement of Science, and almost every Muslim who has concerned himself with Islamizing education or science has had in mind consciously or unconsciously certain goals. Only after having determined the goal do they ask how religion might fit in, or how' they might go about pursuing these goals in a manner compatible with Islam. These goals are determined with the aid of mere reason and human understanding. This is to set reason above religion. Rather, it is the very goal which religion should define and all our affairs should then be orientated in accordance with that goal.^[96]

It is only in attendance "to the demands of his profound inner nature"^[97], to quote Dr. Nasr. that man fulfils himself. God has said. "I only created man and *jinn* so that they might worship me." (Qur'an 51:56) The quintessence of worship is the remembrance of God (*dhikr*) for God has said: "...and establish worship. Lo! worship preserveth from lewdness and iniquity, but verily remembrance of Allah is more important." (Qur'an 29:45, trans-Pickthall). The Prophet (SAAS) insisted on the supremacy of remembrance: "One hour of

contemplation is better than sixty years of prayer.^[98] He (SAAS) indicated how vital it was under he said: "The world is accursed and all that is in, except the remembrance of God and what is in His Way and the learned and the seekers of Learning."^[99] It is the remembrance of God which must be our goal and everything else must be orientated to this goal. Through meditation man is afforded access to the realm of pure intelligence whose very substance contains all the metaphysical and cosmological principles.^[100] However most men are cut off from their spiritual root and live in exile from the Intellect.^[101] It is through revelation and spiritual practices dependent on it that access is restituted. The way of gnosis (ma'rifah) is a comparatively direct method, while the study of the sacred sciences are assessorial adaptations of this central method. It were as if God in his Mercy had cast not only a wide trawl net to catch men for Paradise, but in addition he cast smaller nets to catch men which, for one reason or other, may have been missed by the main net.

In this connection in *Al-Qistas al-Mustaqim al-Ghazzali* (see the translation by Moulvi M. H. Babu Sahib in *Al-Islam* Oct/Dec. 1972, pp. 41-42) cites the following Qur'anic verse:

Invite to the Way of thy Lord with wisdom and beautiful preaching, and argue with them in ways that are best and most gracious. (6:25)

Thereafter al-Ghazzali renders the following exegesis (tafsir): Know that those who are invited to Allah, the Lofty, with wisdom are a people, and those who are invited with beautiful preaching are another people, and those who are invited with argument that are best and most gracious are still another people. Because, wisdom, if fed to those who are fit for being preached it will harm them like the harm of feeding of a suckling child with the feed of bird's meat. And the

argument if employed with people of wisdom they will feel disgusted from it like the natural disgust of the strong adult from suckling out of human milk. And whoever employs argument in dealing with men of argument in the way that is not best, as you know it from the Qur'an, is like one who feeds an itinerant nomad (Arab) with the bread of wheat whereas he does not like anything other than dry dates: or feeds a townsman with dry dates whereas he does not like anything other than fresh unripe dates.

Dr. Nasr remarks in "The Role of Traditional Sciences etc": The traditional sciences are in fact one of the means of access to the world of light which they reflect on their own particular domain in conformity with their nature and field of application. It must not be forgotten that in India treaties (sastras) were written on the traditional sciences which are called Vedanga literally "limbs or powers of the Vedas. (p. 12)

The sacred sciences, while concerned with the contingent world ('alam-i-imkan) outwardly, were essentially concerned with an inner transmutation — a work performed on the soul in the hope of qualifying it for illumination. The principle is indicated by the words of God:

And so we propose these parables unto man, but none grasp their innermost meaning save those who [of us] are aware, [and hence are certain that] God has created the heavens and the earth in accordance with an inner truth: for, behold, in the [very creation) there is a message for all who believe [in (Qur'an 29:43-44 translation and interpellations by M. Asad).

It is the object of the sacred sciences to give us a revision of God in his works. The vision corresponds to metaphysical knowledge which Frithjof Schuon says "is like a divine seed in the heart: thoughts are only very faint glimmers from it."^[102] it

is a knowledge which is one with its object, in other words it is a "knowing" which at once is also a "being"^[103] Did the Prophet (SAAS) not Indicate this when he said, "A word of wisdom is the lost property of the believer. Let him recover wherever he finds it."^[104] Intellectual vision is nothing other than spirituality and it is the attainment of this which is more incumbent upon us than anything else. To the extent that traditional sciences assist men to attain this they are useful.

It is intellectuality and spirituality that modern man needs so desperately, not hydro dams and airports and a better deal for the poor.

The modern reformer wants to reform science society, state, religion and everything except himself, and he tempts others to commit the same error so that reformers are springing up like a crop of weeds. Nothing is spared their reformations except their own selves. Dr. Nasr remarks about the reformer "Without putting his inner house in order, he tries to order and shape the world around him."^[105] Following the Westerners they exalt action over contemplation. Rene Guenon has discussed this issue exhaustively in a chapter titled: "Knowledge and Action" in *Crisis of the Modern World*.^[106]

The Eastern doctrines, and likewise the ancient doctrines of the West, declare unanimously that contemplation is superior to action just as the unchanging is superior to change. Action, amounting merely to a transitory and momentary modification of the being, cannot possibly contain its principle and sufficient cause within itself; if it be not dependent upon a principle outside its own contingent sphere, then it is something purely illusory; and this principle whence it derives all the reality of which it is capable, as well as its existence and its very possibility, is to be found in

contemplation alone or, in other words, in knowledge, since fundamentally these two terms are synonymous or at least they coincide, knowledge itself and the operation of attaining it not being in any way separable. Similarly change, in the widest sense of the word, is meaningless and contradictory, impossible that is to say, without a principle whence it derives and which, from the very fact that it is its principle, cannot be subject to it and is therefore necessarily unchanging; and it was for this reason, in Western antiquity, that Aristotle asserted the necessity of a "motionless mover" for all things. It is precisely this part of a "motionless mover" which knowledge plays in relation to action; it is clear that action belongs entirely to the realm of change and "becoming": knowledge alone provides the means of escape from this realm and from its inherent limitations, and when it attains to the unchanging, as in the case of principal or meta-physical knowledge, which is knowledge in its essence, it becomes itself possessed of immutability, since all true knowledge is essentially identification with its object. This is precisely what modern Westerners fail to understand; they admit nothing superior to rational or discursive knowledge, which is necessarily indirect and imperfect, being what one might describe as reflected knowledge; and even this lower type of knowledge they are coming more and more to value only in so far as it can be made to serve immediate practical ends: absorbed in action to the extent of repudiating everything that lies beyond it, they fail to perceive that this action itself degenerates, from absence of principle, into an agitation as unprofitable as it is trivial.^[107]

Let us consider Dr. Nasr's perspicacious remark about the modernist reformers again:

"Without putting his inner house in order he tries to

order and shape the world around him".

Consider how can anyone who does not possess illumination and virtue hope to impart goodness to anyone else? "One who is good cannot help doing-good whatever he does, and one who is not good cannot hope to do good whatever he does."^[108] This truth is profound; its obscurities has spelt the loss of spirituality for the whole Muslim world. "One who is good cannot help doing good whatever he does" — therein is indicated the station of man as Khalifatu Allah (Viceroy of God), the God-conscious dispenser of Heaven's perfume on earth: the pontifex whose very presence summons the souls of men to remember their King.

Subversion

The modern reformers exclusive concern with science and society shifts the focus away from the individual. These reformers ever deny belittle or ignore the mystical ethos which stresses individual reform and spiritual contemplation before action. It is not to be denied that the good of the Ummah is a priority, but it has to be insisted the Ummah can only acquire good from good individuals, and only through such individuals can it be reformed—Now the best individuals are those who have the most knowledge and virtue and the ones who have the most knowledge and virtue are those who Know and remember God. It is these truly qualified men who constitute the natural and authentic hierarchy of religious authority. In their hearts is deposited the integral intellectuality and spirituality which is the most precious heritage of the Ummeh. These men recognize the spiritual authority of the great luminaries of the past—those who have been unanimously acclaimed as the intellectual and spiritual leaders by the great scholars and saints in all ages. It is this

natural hierarchy of authority which has preserved the integral teachings of Islam and in every generation transmitted and clarified the legacy.^[109] These authorities have always emphasized the individual, over society, contemplation over action, realized knowledge over theory, symbols over facts, and *farḍ* over *kifāyah*.

Syed Nauqib al-Atlas a prolific author, educator and gifted thinker now residing in the UK, insists that the very loss of the notion of the hierarchical nature of knowledge has meant disintegration for the Ummah because it has allowed false leaders who do not have illumination and virtue to establish false hierarchies.^[110] Because the Ummah had lost its discernment, it accepted counterfeit authorities who deprived them of their birthright. Nauqib al-Atlas divides these false leaders into three types.^[111] The first is the false Imam who reduced knowledge to *fiqh*; the second is the modernist reformers who denied the possibility of supra-individual knowledge. They submitted the legacy of Islam to a rationalist interpretation which differed drastically with the immemorial perspective upheld by the legitimate authority. The third type is the outright secularist leader. The first type of reformer militates against the authentic authorities of religion, while the second and third promote worldly interests and make society, economy and politics their priorities. They use the institutions to further these priorities, and wage a campaign of propaganda against the traditional authority slandering them as quietist, unrealistic, stifling, world-denying, anachronistic, heterodox, irrational, fundamentalist and so on. At the same time these false leaders, in order to solve their social, economic and political problems, resort to Western social, physical, economic and political sciences. These sciences, as we have considerably

discussed, exert an immense secularizing influence in that they supplant religious norms with the dogmas of secularist humanism. The outcome of this subversion is that society starts to transform itself into an ant-heap; its activity is reduced to frantic, aimless change, without meaning or significance. Unfortunately the great majority of those who are promoting the "Islamization" of science are, in fact, only contributing to process of subversion and secularization which has overrun the Muslim world.

Some Reflections on the Thought of

Ziauddin Sardar

Ziauddin Sardar has recognized the inaptness of proposing that science and technology can be sufficiently Islamized by their simple incorporation in an Islamic polity. The idea of "science in an Islamic polity" supposes that because a man is a Muslim his attitude and approach to science will be different, that is, his science will be Islamic. Sardar remarks that this "is the ultimate in intellectual blindness" (p. 38), because such a view ignores the fact that science is an international enterprise inseparably tied up with politics and profane ideology, "One either works within or outside [the scientific enterprise]" (p. 38) Research priorities and emphasis are set not by individual scientists but by national governments, external influences – like the US military – industrial complex – aid agencies and the international culture of science. There is no way for an individual scientists working in his laboratory to safely conclude that his particular piece of research will not serve a socially disruptive purpose." (p. 38) Sardar points but that half the community of scientists world-wide are engaged in work "related to social control, either domestically repressive regimes against their

own population or externally as war." (p. 39) He further explains that this involvement is not simply direct, as in the case of weapons production, but also indirect. The indirect involvement is the industry support to the direct involvement, that is "the war-machine." It is equally blameworthy as is confirmed by the hadith: "He who abets a bad deed even by half a word is partner in it". Within this system one cannot take an Islamic approach or argue that the reductive methodology of science will lead Muslim, by virtue of their religion and beliefs to make environmentally sound socially beneficial contribution to Islamic societies Nor indeed, one can take refuge in academic isolation and blame 'others' who have soiled the fair name of science by applying its results to evil deeds. Such breath-taking disregard for the ways in which the total, unified system of Western Science works is a major factor why genuine problem solving methods and socially relevant research has never taken root in Muslim countries." (p. 39)

Sardar criticism is fully justified. This ingenuous and reprehensible attitude is usual among Muslim scientists. An instance of it is presented by Ahsan Jan Qaisar, a scholar, whom Sardar criticizes. Qaisar has summarized the prevailing attitude as follows:

The Muslim scientists most realize that, as far as processes and methodology are concerned, science and religion are two separate worlds (p. 37).

Sardar denies that we can conceive of science in an Islamic polity, and he declares that an Islamic science must be restructured "whose processes and methodologies incorporate the spirit of Islamic values, a science that is geared to the needs and requirements of Islamic values ...a science that is done not for its own sake but for the pleasure

of Allah..." (p. 40). Although we will full-heartedly agree with this definition we have to observe that Sardar's understanding of the Islamic methodology and the real spirit of "disinterestedness" is greatly limited. He declares that every civilization is heir to two types of knowledge — "the self-evident truths requiring no proof" (p. 40) which he calls "axiom" and another type which he vaguely defines as "a dynamic and volatile body of scientific knowledge". (p. 40) Sardar argues that the Islamic sciences flourished because of its broad base of axioms. He remarks that "Occidental civilization has few axioms" (p. 40), and he indicates that these are "negative" in effect. Then he lists some of these axioms: "... that Reason is Supreme, nature is there to be dominated, the purpose of science is to solve all problems and that the only science that can do this are that of the Enlightenment" (p. 41) Sardar further insists, "The revival of Islamic science in our time means contemporary science will get a much-needed ethical base," and what he implies is that because Islamic sciences are possessed of axioms these would be infused into the modern sciences giving it an "ethical base". He indicates that during a seminar entitled "Science and Values in Islam and the West" (p. 42) held in Stockholm in 1981 a code of what were called "concepts" from which were "to shape the goals of a Muslim society" (p. 43) and from which "basic values" could be generated. The ten concepts identified were as follows: tawheed (unity), khirafah (trustee-ship), ibadat (worship), 'ilm (knowledge), halal (praiseworthy) and harem (blameworthy), adl (social justice) and zulm (tyranny), istislah (public interest) and dhiya (waste). (p. 42)

There can be no dispute about the concepts, if science were to be re-constructed with the intention to fulfil the

complete requirements of even just one of the first four concepts; namely, tawheed, khilafah, ibadat and 'ilm, it would be an integral science of benefit to man in both body and spirit. However, in proposing to determine a new science only in accordance with the requirements of these concepts, Sardar and the other proponents have deceived themselves, for they have not discussed certain basic premises of the scientism we have been discussing throughout this paper. These premises to which they have acquiesced are essentially opposed to the ideas by which they propose to mould a new science. We have examined enough of Sardar's writing to appreciate that he assumes there is no faculty superior to reason. This condemns him, and the others who share his handicap, to what Rene Guenon has aptly called, a "gross practical naturalism which shuts up our contemporaries within the sole domain of contingency".^[112] It precludes any understanding of metaphysics and the principles of which this world is a manifestation. Sardar, and most of members of Muslim Association for the Advancement of Science in Aligarh, and the Inter-national Institute of Islamic Thought in Washington are basically content with the study of contingency and with the inductive methodology of science to the exclusion of methodologies which were formerly employed by Muslim scientists. Rene Quenon has insisted, "...it is quite out of the question to build up again a traditional civilization in all its fullness without first having the supreme and fundamental knowledge that must preside over the work. To seek go about it otherwise would mean introducing still more confusion just where one hoped to abolish it..."^[113]

Rene Guenon (Abdul Wahid Yahya. d. 1950) was an intellectual (Sant of such stature as the Western world clearly

has not produced in over four hundred years. On the one hand he denounced and exposed the errors of Western thought with such a rigorous logic as no-body else has been able to do and he left us in his writings an intellectual armory powerful enough to raze the edifice of profane Western thought to the ground. On the other hand, he expounded with brilliant clarity the metaphysics inherent in revelation so that we might reclaim our heritage further he was a pious new Muslim. That he be ignored altogether by would-be Islamizers, shows that something is seriously amiss.

The work of Rene Guenon has been continued for several decades by Frithjof Schuon (Isa Nuruddin), Titus Burckhardt (Ibrahim Izzuddin), Seyyed Hossein Nasr and Osman Bakr. These scholars faithfully present Islamic science in all its intellectuality and make no unwarranted and servile compromises with modern thought. Their work and the work of the original Muslim scientists themselves should provide the point of departure in any endeavour by Muslim scientists themselves should provide the point of departure in any endeavour by Muslim scientists to revive or adapt Islamic science for the modern world

As we have already had occasion to mention, a truly Islamic Science acknowledges the hierarchic nature of the universe and its major concern is speculative — that is. it "seeks the knowledge of the essence of things in relation to their divine origin".^[114] This concern is something Sardar Kirmani, Ismail al-Faruqi and others fail to comprehend, and it disqualifies them as potential revivers of Islamic science.

Let us consider just one or two of the ten concepts identified by the congress in Stockholm to see what it implies or requires of a science that is conceived in subordination to it. Sardar writes the following about unity (tawheed):

It becomes an all-embracing value when this unity is asserted in the unity of mankind, unity of man and nature and the unity of knowledge and values. (p. 42)

It is one thing to speak about asserting the unity of knowledge and of man and nature, but it is quite another thing to actually achieve it.

Osman Bakr insists that the entire "epistemological paradigm of Islamic Science" is based upon the idea of unity (tawheed).^[115] Let us attempt to clarify how this is so.

God is the indeterminate principle, the unqualified Essence and the Pure Intellect. It is His nature to reveal and create. This is attested by the Qur'anic verse: "We did not create the heaven and earth and all that is between them except for truth (al-haqq). (Qur'an 46:3) A hadith qudsi confirms the same: "I was a hidden treasure and I desired to be known so I originated the Creation."^[116] Osman Bakr comments about this hadith: "This implies that God's Creation is also His revelation, otherwise it would not be possible for Him to be known through His creation."^[117] The cosmic revelation, as we mentioned earlier, has been called the First Book of God (Awwal l-kitab Allah).^[118] It also has been called the Qur'an of creation (al-Qur'an al-Takwini).

God has determined the cosmos in stages. In other words, Reality is comprised of a hierarchy of states which reflect the Supreme self in an increasingly imperfect manner according to their remoteness from the Source. These levels of existence are known through revelation and in classical cosmology they are five: Nasut, Malakut, Jabarut, Lahut, and Hahut (The material world, the angelic world, the world of power, the Divine Being, Beyond Being)^[119] The material world is comprised of both corporeal and psychic modes, also referred to as the subtle and gross states. The angelic

world controls the lower natural world. The world of power constitutes the distinct attributes of the Divinity. The next Presence (Lahut) designates the Divine Person as the Creative Principle which is still indistinct while the last Presence (Hahut) designates Beyond Being, pure and unqualified Essence — "the hidden treasure").^[120]

Man is God's creation and a secret of God for he is endowed with the intellectual faculty (al-'aql) which also hierarchic in nature:

In other words, man is capable of having multiple levels of consciousness. He is "in a position to know that universe completely and also to know its uncreated Principle".^[121]

Islamic methodology of knowledge (al-'ilm) deals precisely with the essential relationship between the hierarchy of man's faculty of knowing and the hierarchy of the universe, and with the Principle governing that relationship. "In traditional Western metaphysics the Principle was sometimes referred to as the metacosm; the universe - the macrocosm; and man - the microcosm. It was comprehended that whatever is in the macrocosm is also in the microcosm, while the metacosm, which was placeless, contained them both. This doctrine is also an important Islamic doctrine."^[122] The authority for which is the following Qur'anic verse:

In time we shall make them fully understand Our messages [through what they perceive] in the utmost of the universe] and within themselves, so that it will become clear unto them that this [revelation] is indeed the truth. (Qur'an 41:53, translation and interpolation by M. Asad)

The Divine Intellect is the source of the human intellect^[123] which has been called the partial revelation (al-wahy al-juzi)^[124] the Universe which, as we have just described, is a cosmic revelation (al-Qur'an al-Takwini); and

the Qur'an (al-wahy al-kulli).^[125] "That the individual human intellect, the macrocosmic Universe and the Holy Qur'an have the same metaphysical basis or source has an immediate significance for the methodology of science in Islam."^[126] "It is again the principle of Tawheed which integrates these three forms of divine revelation into a comprehensive and coherent unity."^[127] There is something in the human soul which corresponds to the phenomena (ayat) of the universe as well as the verses (ayat) of the Qur'an. This is confirmed by the following hadith which we had occasion to mention earlier: "A word of wisdom is the lost property of the believer. Let him recover it wherever he finds it."^[128] And in another hadith, also quoted earlier, the same is confirmed:

The son of Adam has a piece of his heart in every ravine. Whoever chases after all the pieces Allah doesn't care in which ravine He destroys him. But whoever trusts in Allah, He will suffice him for all the pieces.^[129]

By plumbing his own soul man can know the reality of all things and know as well the Principle of all things. This is attested by a tradition which has been criticized from the point of view of transmission because it is a mauqu f hadith stopping in its chain of transmission (isnad) with Hazrat Ali. This at any rate makes it a saying of a companion (othar). The saying is as follows: "Who knows Isis oven self knows his Lord".^[130] We have discussed this tenet above while discussing principles under a section titled, "Degenerate Residues", so it should not be necessary to elaborate here any further. The corollary thesis that he who denies and forgets his Lord, denies and forgets himself is found in the Qur'an:

And be not like those who are oblivious of God. and whom lie therefore causes to be oblivious of their own selves! it is they, they who are truly depraved! (Qur'an 56:19).

Trans. M. Asad)

The foregoing epistemological considerations can only be recognized when there is a sufficiently clear grasp of unity (tawheed). A proper conception of unity must comprehend the hierarchical nature of reality. This precisely is the last thing profane rationalists want to admit, for they refuse to acknowledge that there may exist a reality beyond the scope of reason.

Muslim scientists had a clear understanding of the ontological unity of phenomena and scripture. They knew that the meaning of phenomena and scripture was hidden in their own souls, so they were able to resort to methodologies of knowledge which either are not conceived of by modern thinkers or whose legitimacy they will not admit. Muslim scientists, as is well known, also resorted to the methodology of observation, experimentation and ratiocination, but there was an enormous difference between the rationalism of Muslim scientists and their modern counterparts, for the Muslims never pretended that reason was the supreme arbiter of knowledge. They were certain about the existence of the Supreme Principle and they subordinated reason to revelation. In other words, as much as phenomena, the Qur'an provided undeniable data which reason might then interpret? The rational methodology of exegesis was known as tafsir, but it is to be emphasized that its exercise requested faith in God and His revelation.^[131] "We will make clear our signs to people with certain faith." (Qur'an 2:118)

"The methodology of tafsir, as it has been developed traditionally, including especially the method of linguistic analysis, must constitute an integral component of the overall methodology of Islamic science that is to be revived in the

modern world."^[132] Modern scientists pride themselves as being the first fully rational thinkers. However, the truth is their methodology is defective and all the logic in the world cannot remedy their error for they have built their edifice on false premises. Those who desire to reconstitute Islamic science must renounce the adulation and servile imitation of modern scientists and assert the authentic rationalist methodology of Islam. If they did this with self-confidence and competence, many Western scientists would surely rally to their support, for some of the most able Western scientists have become disillusioned with the conventional inductive methodology and are seeking to employ a plurality of methodologies including scriptural exegesis (tafsir).^[133]

A second methodology employed by Muslim scientists was the hermeneutic exegesis (ta'wil) of the inner meaning of the Qur'an.^[134] "If the operational aspect of the 'aql in the method of tafsir is the rational faculty which exercises an analytic function by means of logic, that aspect which is operative in the method of renail is the intuitive faculty whose function is synthesis and unification, and whose chief instrument is symbolism."^[135] B It was the vision of the ontological unity of the hierarchy of being which enabled Muslim scientists to realize that this world, and all that is in it is nothing but a symbol of realities on higher planes of being. The qualitative aspects of the symbolic form are sufficient to indicate the essence of that form to one who has sufficient intuitive capabilities (wijdan).^[136]

Further, Muslim scientists were also open to inspiration,

How did Ibn Sina arrive at his impetus theory or Nfsir al-Din al-Tusi at his new model for planetary motion or Ibn

al-Haytham at the concept of momentum, one of the most fundamental concept of modern physics, or Shihab al-Din al-Suhrawardi at his theory of corporeal objects as being degrees of light? Professor Nast affirms the view that such creativity, whether in the case of Muslim scientists or their modern counter-parts, cannot be reduced to any well-defined, step-by-step method but always an intuition, a jump of a creative nature.

Although the creativity of Muslim scientists cannot be reduced to "a step-by-step method", the capacity for intuitive reflection and inspiration can be cultivated in the right "kind of total environment, physical, social and cultural, intellectual and spiritual that is most conducive to intellectual actualization."^[137] All genuine sciences are attached to a Divine revelation because the intellect which perceives "the universal and immutable principles" only becomes activated by "the aid of supernatural elements that an authentic and complete spiritual tradition can supply."^[138] Here is not the place to discuss how intellect might be actualized. Suffice it to say that as far as conceptional factors are concerned the adequate comprehension of the doctrine of the unity of the hierarchy of being is indispensable. As for spiritual factors, the purification of the soul and the practices of prayer and meditation are necessary.^[139] This is evidenced by the fact that a great many Muslim scientists had spiritual affiliations:

It is not a mere historical coincidence that to many of the Muslim scientists were either practising Sufis or were intellectually attached to the illuminationist gnostic schools, – as Professor Naves works so clearly demonstrated.^[140]

The authentic Islamic methodologies are consequent to an effective and profound realization of unity (tawheed). For lack of this realization Sardar, Ismail Famqi and other would-

be Islamizers are not able to conceive of anything but a superficial and trivial revivification of sciences:

Whatever they will present will remain essentially Western because it "remains embedded in the epistemological paradigm of modern science."^[141]

Similarly, if we take the concept of Trustee (khiifah) which Sardar and others have advanced as a criteria under which they propose to reform science, we will find that they cannot fulfil its requirements either. Sardar asserts.

...man is not independent of God but is responsible and accountable to God for his scientific and technological activities. The trusteeship implies that man has no exclusive right to anything and that he is responsible for maintaining and preserving the integrity of the abode of his terrestrial journey. Thus the heroic concept of science, the lone scientists out to conquer and dominate nature at all costs, has no place in this framework. (p. 42)

This conception of khilafah is incomplete. Although Sardar rightly insists that we have the responsibility as khilafah not to misuse the environment, he fails to comprehend that this is not enough for man is khilafatu Allah only by virtue of intellect through which he is capable of knowing God and the meaning of all things as they really are. The doctrine of the khalifah is quite transparent in the Qur'an:

When your Lord said to the angels: 'I am placing on the earth one that shall be My deputy, (Khalifah) they replied: Will you put there one that will do evil and shed blood when we have for so long sung Your praises and sanctified Your name? He said: 'I know what you do not know.'

He taught Adam the names of all things and then set them before the angels, saying: "Tell Me the names of these, if

what you say be true:'

Glory to you, they replied, we have no knowledge except that which You have given us. You alone are Wise, Knowing. Then said He to Adam: 'Tell them their names.' And when Adam had named them, He said: "Did I not tell you that I know the secrets of heaven and earth, and all that you reveal and all that you hide?" And when We said to the angels: 'Prostrate yourselves before Adam, they all prostrated themselves except Satan, who in his pride refused and became an unbeliever (2:30 – 34 trans. by N. J. Dawood).

The angels conceived of the qualities of unregenerate man and they were puzzled why God would honour one who would spread corruption, but the angels were not able to conceive of the qualities of regenerate man, the khalifah, represented super-eminently by Adam (SA AS). Adam (SAAS) was God's secret, and God demonstrated His unique capacity to the angels for He gave him the names of all things, that is He indicated to him the essences of which the angels were incapable of apprehending. (In Islamic metaphysics and cosmology the names (al-asma) of things is used routinely to designate the essences of phenomena, that is, the noumena).

The Qur'an describes elsewhere how God spoke to the angels about the creation of Adam (SAAS), "I am creating man from dry clay, from black moulded loam. When I have fashioned him and breathed of My spirit into him, kneel down and prostrate yourselves before him." (15:29 trans by N. J. Dawood) The khalifah is a mystery of God, for the khalifah has a theomorphic nature by virtue of which even the angels were commanded to prostrate before him. The spirit, the intellect, and light are various terms by which the transcendent element of man is indicated,^[142] and by reason of

it man, that is to say re-generate man, assumes a central position in the physical universe, for he is the most articulated sign of the Supreme Principle and the means whereby the rest of creation is afforded knowledge of the Godhead.

And in this context it is appropriate to mention the 'extremely timely' tale which Professor Nasr recounts from an Islamic philosophical treatise. It concerns a dispute between man and the animals. The various reasons put forward by man in defence of his exploitation of the animal kingdom, based as they are on purely human advantages, are all rejected by the animals. 'Only when animals see that among men are saints, who in returning to God also fulfil the deepest purpose of the creation of the animal kingdom, do they agree to obey man and to serve him.'^[143]

It is by assuming his theomorphic nature that man fulfils "the deepest purpose of the animal kingdom (and the rest of creation as well) This is why the creation blesses the saints and sages as is attested by the hadith "...Verily Allah, His angels and the dwellers of the heavens and the earth and even an ant in its hole and even the fishes bless the learned men of the righteous." (Tirmidhi in Mishkat)

Lord Northbourne (Sidi Nuh) has expounded the role of the Khalifah in a masterly fashion in terms of the traditional concept of evil:

The world is a manifestation of the pure, and infinite goodness of the Principle, but, not being the Principle, the world is not pure goodness, but is tainted with that negation of goodness we call 'evil'. The world came from the Principle and must return to it; that return implies a reintegration in which evil can have no place. Man shares the imperfection of the world, but, as the ultimate development in the manifestation of the Principle, he becomes as it were the

instrument through which the reintegration is brought about: His whole duty therefore, and his whole advantage, consist first in learning what goodness really is, and then in pursuing it with his whole heart "^[144]

It is in this knowledge that man really fulfils himself and only with this knowledge can be properly discharge his duty as khalifah. A science which promotes this type of knowledge is realistic in that it can inform us of our real place and purpose, and, as a facet of the revelation, it can act as an intellectual support for the assumption of our true nature as Heaven's viceroys dispensing the perfume of Unity in the meadows of multiplicity. On the other hand, a science which concerns itself solely with the relative good or an illusory good is appallingly unrealistic.

Ziauddin Sardar's conceives Cod's khalifah on earth rather as a noble guardian using the earth as a goodly garden neither abusing the garden or his fellow gardeners. This concept has childlike charm but the problem with childishness is that it is unrealistic. The world is a garden, but at the same time it is temptation, distraction, and illusion; al-dunya of the Qur'an and hadith. The inadequacy of Sardar's concept of khalifah is brought into stark relief by the following hadith:

The world is sweet and green and verily Allah is going to instal you as Khalifah in order to see from you act. So safeguard yourselves against the world and avoid the trial caused by women. (Riyad as-Salihin: 462, from Muslim)

If we permit ourselves to be seduced by the world we will lose our intelligences and what alone makes us truly worthy of God's vicegerency (khalifah).

We have considered just two of the concepts by which Sardar and others are proposing to remodel Islamic science,

and we think we have shown that, while the concepts are key Islamic concepts, Sardar's understanding of them is not fully Islamic.

If we were to exam the rest of the other eight concepts that the Islamizers have identified, we would similarly show that the "Islamizers" do not comprehend them in an adequate manner because their epistemological outlook is fundamentally Western. Not only are they not qualified to restructure a genuine Islamic science, but they will only further obscure the reality of such sciences by labelling their illegitimate conceptions as Islamic.

Although Ziauddin Sardar talks about epistemology, he fails to comprehend principles in an integral sense, so in their place he installs pseudo-principles. He writes:

Logical positivism and materialism (of which Marxism is a part) and their twentieth century counterpart. logical empiricism, threw values overboard altogether. In their epistemological framework values are not considered proper knowledge. Utilitarianism declared that the goal, the ideal, of all moral endeavour is the greatest happiness of the greatest number of people. (p. 34)

Sardar correctly observes that utilitarianism has resulted in moral relativism, but he confuses contingent values with epistemology. What empiricism "threw overboard" was transcendent truth not merely values.

Sardar omits to make the necessary criticism of modern epistemology: namely that it rejects the hierarchical nature of the objective and subjective pole of knowledge; that is, that which is known and that which knows – the universe and man.^[145] This is the error at the root of "the intellectual regress" from which our age suffers. The moral plight is only a contingent consequence of a graver malady — the denial of

the transcendent hierarchy of being. The secular mind cannot be prevailed upon to adopt any value unless it is a matter of self interest or fashion. It is futile to advocate, as does Sardar that science and society can be cured by inculcating moral value alone. The folly of such thinking is illustrated by the moral relativism which is rampant in the Christian world today; when the knowledge of theological doctrine waned completely in the modern era, Christianity was reduced to effete moralism^[146] which for insufficient intellectuality could not contain moral relativism and anarchy within the Church itself.

While discussing the intellectual debacle and the development of moralism in the West, Rene Guenon observes:

If, nevertheless, doctrine still happens to be talked about sometimes the result is only too often to debase it through discussing it with its opponents on their own "profane" ground, which inevitably leads to the making of the most unjustifiable concessions; it is for this reason in particular that people imagine themselves obliged to take account, to a greater or lesser extent, of the supposed discoveries resulting from modern 'criticism', whereas nothing would be simpler, by placing oneself at a different point of view, than to demonstrate their shallowness' under those conditions how much can really survive of the genuine traditional spirit.^[147]

In a completely analogous way Sardar and the Islamizers sometimes talk about epistemology with the result that they debase it by discussing it on the same "profane" ground which inevitably leads to making unjustifiable concessions; they feel obliged to take account of the supposed advances of the scientific methodology, whereas nothing would be simpler, by placing themselves at a different point of view,

than to demonstrate the shallowness of the scientific perspective; under these conditions how much can really be salvaged of genuine Islamic science'?

Technology: The Legitimate and the Profane

So far in this essay we have been considering what may be referred to as the intrinsic malaise of the scientific perspective, attempting to expose how it suppresses and subverts religious intelligence or what we preferred to call elsewhere the symbolist spirit following Dr. Nasr. Now we have to focus on what we may call the extrinsic malaise of the ill-omened enterprise which the would-be Islamizer Mr. Kirmani has so proudly hailed as "S & T" meaning science and technology.^[148]

We had occasion to remark that, about the time of the Renaissance, a hitherto unknown and anomalous situation arose with the bold assertion of an individualistic spirit which denied any destiny beyond this earthly life and sought to fulfil itself here and now. Indeed, such a mentality had been encountered before, but as an exception and not as a rule. To meet the demands of this new faith, there soon arose an eager priesthood in whose hands were not the keys to the Kingdom of Heavens but to Kingdom of Man We are referring, of course, to the scientist Thanks to the scientists prying into the secrets of the natural world man acquired the power to exploit the environment in a truly titanic fashion. By meddling with and harnessing forces and elements normally hidden to human experience, man has forced fractures in the sphere of normal human existence. The powers over the environment which man acquired through rebelling against his natural vocation were monstrous, a fit compensation for the monstrousness of his insubordination to his Creator.

Suddenly man had "god-like" control over his earthly destiny: he could change the East and the West. But the artificial world which rose with a wave of his technological wand so much hid him from human normality that he was shut out from his past and left alone to cast the parameters and avenues of his subhuman world. The question of what is normal for man or what is his true nature (fitrah) is a vital question, but it is a metaphysical question, and it demands a metaphysical answer.^[149] It is precisely for lack of metaphysical knowledge that man has entered the abyss in which he finds himself, and all his struggle to find meaning in the world are as futile as reaching for an overhanging bank of sand. In this connection Peter Moore writes:

Modern psychological and social theories of what is 'natural' in man and 'liberating' for him, because they lack any metaphysical basis, inevitably turn out to be nothing more than projections of that perennial complex of desires and illusions from which man in his heart longs to escape. These desires and illusions may have become man's 'second nature' but they do not constitute his essential nature.^[150]

Four of the most eloquent and able critics of modernity, Frithjof Schuon, Dr. Naar, Gai Eaton and Huston Smith have recalled the myth of Prometheus was one of the Titans of Greek mythology and he was an ingenious craftsman. At one time in the early history of mankind it was said that Zeus removed all fire from earth. Prometheus defied Heaven and by means of cunning stole fire from Olympus and brought it back to mankind. However, in payment for the fire, Zeus sent Pandora to mankind with a chest which contained every kind of affliction.^[151] Let us make some remarks which may show why this parable is so apt.

The scientific enterprise has wrought a two-fold

devastation for mankind. One aspect of the ruin concerns the environment, the other aspect concerns the quality of human life. In the first case, techro-science has ravaged, defaced, and desecrated every niche of the ecosphere for, not to mention the unhuman desolation of urban excrescences, the very mountain forests, the high seas, and even the stratosphere bear some blight, some stain, some contamination of technology. The ecological damage is copiously documented and fully recognized, at least in the developed world where a great fraction of the scientific community, government bureaus, and the general public have been campaigning against the indiscriminate exploitation of the environment. In the "undeveloped" world for different reasons, particularly the inordinate greed for development, there has been no concern, as yet, about the effect of technology on ecology.

Be that as it may, those who have shown concern for the ravage of the natural world have invariably suffered from one enormous shortcoming they have failed to see that the problem is a theological and metaphysical one, and not merely an ecological problem which resulted from a misuse of technology. Instead of seeing what is the root cause of the malaise. They have contented themselves to tender mere symptomatic relief. "It is not enough simply to exercise care and restraint in the use of natural resources... It is not good appealing in a vague and sentimental way to man's obligations and responsibilities to the natural environment. For within a purely secular or humanistic system there is absolutely no reason why man should care anything about the natural environment beyond what is dictated by self-interest and perhaps also by aesthetic considerations."^[152] The real malady is metaphysical and it demands a metaphysical redress

Secular man grovels under the delusion that he is free to

treat the environment how-ever he fancies for he denies his subordination to God and his dependence on Him. All the evils of technological world are a consequence of this delusion. The real solution involves the rediscovery of man's true nature, place and purpose in the cosmos, for were man to recognize this, he would see that his genuine terrestrial needs are very different from what he imagines them to be.

The traditional sciences, which are derived from the Islamic revelation and dependent on it, are able to provide in a pre-eminent manner the adequate understanding of man's nature, place and purpose in the cosmos so that he can administer not only to his spiritual needs, but also to all his legitimate temporal needs. "Their 'utility' [traditional sciences] is, therefore, twofold... Moreover, their message revolves around the central theme of the utter dependence of the lower states of being upon those above and therefore the necessity to possess the higher knowledge and to live according to the norms of the world of the Spirit in order to be able to cultivate a legitimate knowledge of the world below and to live in harmony and equilibrium with it."^[153] Muslims desperately need to comprehend this to salvage themselves from the dilemma which besets them for having blindly adopted Western technology.

Peter Moore has made the very significant that technology does not necessarily mean scientific technology:

Not only does technology have a history quite as ancient as that of science, but until comparatively recent times technology followed a course of development more or less independent of that of science. The popular view, of technology as a secondary outgrowth of science, dependent for its development on new scientific theory and discovery, is in fact quite mistaken. Right up into the middle of the

nineteenth century, the actual links between science and technology were very tenuous: if anything, the influence of technology on science was more significant than that of science on technology. Lynne White Jr.^[154] has aptly described the history of technology, as 'a record of inspired empiricism' and this empiricism embodied laws and principles that were not necessarily understood 'scientifically' by those who invented and developed it.^[155]

It is necessary to distinguish what might be called traditional technology from today's popular scientific technology. What we have just called traditional technology has always been available to man.

Dr. Nasr remarks in his article:

Traditional technologies had to do with craftsmanship and art in its original sense (rechner' in fact like are means to make), but precisely because in the traditional context, as shown so majestically by A. K. Coomaraswamy, are sine scientie nihil, [There is no art without science, they were also concerned with the traditional sciences. For example, traditional architecture is at once a synthesis of art building techniques and science. There are also other forms of traditional technology of remarkable character such as the chemical technology of ancient Egypt, the dyes made by the Chinese or the metallurgy of the Persians and the Arabs. There are also remarkable monuments to the technology of irrigation in the form of dams, canals, underground waterways, etc. found in lands as different ecologically and climatically as Sri Lanka and Persia. In traditional fonts of technology the knowledge drawn from the traditional sciences was combined with practical methods to create results which affected the body and soul of the maker as well

as the user and beholder of object or work in question. (p. 241)

It is not our intent here to propose a wholesale return to old-fashioned forms of technology and artisanry but rather, to pro with examples of legitimate technologies that it is possible to solve real human problems without disrupting the natural environment or the religious way of life. Modern man has fabricated all around himself an artificial world which, on account of its sophistication beguiles him with endless false needs which stifle his true spiritual nature and despoil the natural environment. It is incumbent on modern man to revive adapt or initiate forms of technology which neither threaten his physical survival, nor jeopardize the welfare of his immortal soul.

Rene Guenon on remarks:

Material development and pure intellectuality go in opposite direction: he who sinks himself the one becomes necessarily removed from the other.^[156]

We have deliberated so much on the integral meaning of intelligence that it should not be necessary to clarify further. Nonetheless, let us be reminded by Rene Guenon who remarks after the passage just above:

It should be carefully noted that we say here intellectuality and not rationality, for the domain of reason is only intermediate as it gyres, between that of the senses and that of the higher intellect: though reason receives a reflection of intellect even while denying it and believing itself to be the human being's highest faculty it is always from the evidence of the senses that the notions which it works on are drawn. In other words, what is general the proper object of reason and consequently of science which is reason's work though it is not of the sensible order of things, proceeds none the less

from what is individual. which is perceived by the senses: it may be said to be beyond the sensible, but not above it; it is only the universal, the object of pure intellect that is transcendent, and in the light of the universal even the general itself becomes one with the individual.^[157]

Similarly Gai Faton has observed that inventiveness and intelligence are mutually antagonistic. Man is compelled to choose between the two antagonists, he is "never allowed to enjoy both together. To possess one he must, in the long run sacrifice another; and, for that matter, to possess some worthless trifle he may be called upon to give such valuables as he has inherited; buying fantasies at the cost of reality and paying in sound coinage for trash. What the world can offer us is limited by its very nature, and we must decide what we want to have from it".^[158] This antagonism is confirmed by the holy utterance of the Prophet (SAAS):

Whosoever loves his world ruins his hereafter, and whosoever loves his hereafter ruins his world so prefer what will last forever to that which will perish.^[159]

Al-Ghazzali has delimited the fundamental essentials of life as only three food, clothing and accommodation. Our real needs from this world are in fact quite simple. Beyond these elemental requirements, the world has nothing else it can offer us. The Prophet (SAAS) indicated this when he said:

Whosoever of you gets up at dawn tranquil in his mind and sound in his body and having food for his day this world is provided to him, as it were, with all its treasure.^[160]

Those occupations and the know-how related to basic needs are truly legitimate. They are followed in merit by those secondary occupations and that secondary know-how which are essential for the practice of the principal occupations. The point to be grasped is that these pursuits by rights must be

subordinate to the pursuits of religion for what is the body but a vehicle for the soul and what is society but a means of guaranteeing a quality of life in accordance with the true nature of man.^[161]

In a critical appraisal of technology it is of capital importance to recognize that there were certain techniques which "deliberately were not employed or developed beyond a certain point — the point at which they would begin to impede or prevent what was for more important."^[162] For the medieval world what was of supreme importance was the pursuit of the spiritual and what either directly conflicted with religious life or was ill-adapted for it (for example, because of a lack of beauty or harmony) was suppressed. There are many examples of this:

The historian of science, Lynn White Jr. suggests that the Muslims deliberately avoided the printing press because they felt instinctively that cheap books would eventually destroy cultural leadership, and in his opinion the later history of the West has proved their instincts were correct. The ancient Chinese, whose immense scientific knowledge and technical expertise are now fully recognized, likewise refrained from certain technological applications well within their competence because they saw in them a threat to the quality of their way of life. The same is true of the Ancient Greeks: for, as Simone Weil observed, if Greek science produced little in way of technical applications, this was not because they were incapable of doing so, but because the wise men of the times feared the effects of technical inventions which could be made use of by tyrant and conquerors. So, instead of delivering to the public the greatest possible number of technical discoveries and selling them to the highest bidder, they kept rigorously secret all the ones they happened to

make for their own amusement: and, apparently, themselves remained poor (The Need for Roots, p. 234).^[163]

Peter Moore also quotes Dr. Nasr who wrote of certain Islamic treatises which "described complicated machines which are most like what modern technology has developed during the past two centuries... it was precisely this kind of technology which the Muslims never took seriously as a possible way of changing their economic life and means of production" and Phillip Sherrard continues that it seems the only real practical outcome of such treatises was, as Nasr says, "the making of complicated clocks and gadgets as if the Muslims wanted to show that the only safe kind of complicated machine is a toy..."^[164]

Pervez Manzoor in a recent article in Inquiry Magazine remarks that during Napoleon's occupation of Egypt in 1798-99, the famed historian, Abdur Rahman Al-Jabarti attended scientific exhibition mounted by the French who wished to impress the Egyptians with a sample of fabulous Western culture. Parvez Manzoor writes:

The awesome display of technical wizardry, however, did not impress him [Jabarti]

He recorded that 'the French evidently mistook Muslims for children who could be impressed by such monkey-tricks, but that this rather reflected childishness on the part of the French themselves.'^[165]

What Al-Jabarti said would, no doubt, be supported and applauded by the entire medieval world for as Phillip Sherrard has observed, on account of the resistance offered by "Christian Consciousness", even after the breakdown of Christian authority in the West, technical development was slow: it was not until the 18th and 19th centuries that people began to think on any effective scale that the utilization of

machines and gadgets in order to produce concrete results of a quantitative nature was not beneath the dignity of man".^[166]

The Pretence to Disinterestedness

In contradistinction to the prudence and dignity of the medieval mentality, the modern mentality is reckless, trivial, and irresponsible. The modern scientist has pursued knowledge and exploited it indiscriminately. He is eloquently denounced by Erich Heller who wrote:

Wherever he sees an avenue, he will explore it – regardless of the triviality or the disaster to which it leads: wherever he sees the chance of a new departure, he still take it – regardless of the desolation left behind. He is so unsure of what ought to be known that he has come to embrace a preposterous superstition: everything that can be known is also worth knowing – including the manifestly worthless... Galley-slaves of the free mind's aimless voyaging we mistake our unrestrainable curiosity, the alarming symptom of spiritual tedium, for scientific passion. Most of that which flourishes in these days as 'science', said Kierkegaard is not science but indiscretion. . . (The Artist's Journey to the Interior, pp. 15-16).^[167]

The assertion that scientists pursue knowledge for its own sake and that this is natural to man is sheer pretence. If scientists were truly interested in knowledge, why did they restrict their investigations exclusively to the physical and temporal realm, and why did they exclude all methodologies of knowledge except the inductive? The truth is that the scientific method and its preoccupation with the study of the world of matter was born of the individualist spirit which ignored God and refused real knowledge. Moreover scientific pre-occupation with even just the material world was not

disinterested but clearly vested, for its object was the control and exploitation of nature as Francis Bacon and Descartes clearly pronounced. Indeed, rather than say of scientists, that they pursue knowledge for its own sake, it has to be said that they refuse knowledge for their own sake, that is, for the sake of the most inferior and petty aspect of their selves – the self-asserting ego which desires to satisfy itself in the temporal realm, that is, it "desires to live by bread alone".^[168]

The inferior ego has at its disposal a faculty that can secure for it its desires in this world and that is the faculty of reason. Because reason guarantees it power, the inferior ego sets it up "as the Supreme arbiter of human knowledge".^[169] The profane rationalist denies that there is any faculty which transcends it, or any knowledge which it is incapable of comprehending. This is both monstrous arrogance and a pernicious error, for the unaided reason is extremely limited. "When reason turns exclusively to the phenomenal world for its information, not only do its conceptions refer solely to the finite and temporal world but also they refer merely to those aspects of it that are susceptible to measurement..."^[170]

It is incapable of telling of us anything about who we are because we in our essence are not observable; rather, we are that which does the observing. Whatever we can observe is not the indistinct "self" which is "the one ultimate certitude lying at the heart of the being of every one of us".^[171] If reason cannot tell us what we are ourselves it certainly cannot tell us what man is or what is anything else in this universe. The scientific perspective excludes all but the external and material reality of man. It denies his essential nature and ignores what is incomparably the greater part of his reality. The picture of man that science presents us is woefully shorn and disfigured. Well has Phillip Sherrard said:

... an inhumanity is built into the very premises on which modern science is based.^[172]

Far from being innocent, the scientific endeavour is heinous negligence and nefarious traffic. That it has acquired an image as an innocent and dispassionate pursuit is only a sign of the intellectual capitulation of our times. Gai Eaton has observed in *King of the Castle* that the scientist's claim to innocence is incredible in light of the fact that scientists had to struggle for several centuries against the unanimous opposition of the religious community who desperately maintained that science was dangerous, destructive and beguiling.^[173] In the Islamic world profane science never became nearly so great a concern as it did in the West because the religious community was strong enough to censure it and contain it. Gai Eaton writes:

Ibn Arabi perhaps the greatest of medieval Muslim philosophers, compared scientific delving into the secrets of nature to incest, a prying under the Mother's skirts; and this is one way of characterizing the desire of one facet of the natural world to know another in its most intimate contours. The penetration of nature by the fact-finding and analytic mind keeps time now with the rape of the earth we tread and with the exploitation of our fellow creatures. An incestuous conjunction of mind with matter engenders some monstrous offspring.

Our bodies (and there is a sense in which the whole world, the whole of nature, is our body) are clothing which lasts a little while then falls apart. We have better things to do than pick obsessively at this clothing, placing its fragments under the microscope, making it our sole and absolute concern. Human dignity forbids such dreary obscenities.^[174]

The scientific venture is in every sense illegitimate. It

carries with it the metaphysical seeds of ruin and to put the matter in plain old-fashioned language it was cursed from the outset and it cannot be expected to yield anything but disintegration and destruction.

The Triumph of Ironmongery^[175]

Technology so long as it was independent of science remained geared to and controlled by human needs; once linked up with science it began to get out of hand – literally – and to exceed the human scale, subjugating, the human needs it formerly served and destroying the environment with which it was once in harmony. So it is neither science nor technology which is responsible for the crisis of the modern world, but rather the scientific technology that has resulted from the unholy combination of these once virtually separate human activities.^[176]

Science's prying in the world of matter was the provenance of the electric motor, the internal combustion engine, radio, radar and a score of other techniques. These techniques differ from traditional technology as a kind and not merely in degree, for they have lured mankind into a false and perverted existence – an artificial and sub-human existence. Frithjof Schuon (Isa Nuruddin), a contemporary prodigy, and master exponent of metaphysics, has most suitably called scientific technology "ironmongery", for, indeed, in spite of how much science exalts itself, and in spite of how sophisticated it may seem, in terms of total truth, it is merely a glorified blacksmithery – a reckless, trivial toying with matter. Throughout his prolific writings, Schuon remonstrates against the reign of ironmongery:

In a certain, external sense it may be said that the great social and political evil of the West is mechanization, for it is

the machine which most directly engenders the great evils from which the world today is suffering. The machine is generally speaking characterized by the use of iron, fire and of invisible forces. To talk about a wise use of machines, of their serving the human spirit is utterly chimerical. It is in the very nature of mechanization to reduce men to slavery and to devour them entirely, leaving them nothing human, nothing above the animal level, nothing above the collective level. . . Man, who created the machine, ends by becoming its creature.^[177]

There are two sides to modern technology. One aspect is industrialization which is characterized by systems geared for mass production and by total environments which force human beings to deny themselves in order to conform to the exigencies of stream-lined systematizations. The other aspect is the machine which is not overtly part of production systems but which replaces the tool and thereby usurps normal human activity (like weaving riding and tilling) and creates situations which by surpassing normal human experience denature man's existence. In discussing the technical complex we are usually considering both of these aspects together.

Jacques Ellul has devoted an entire book to the analysis of the technological system which includes machines. Ellul points out as did Ananda Coomaraswamy before him that there is a world of difference between tools and machines. Tools are small-scale instruments which faithfully serve man in helping him obtain the needs of his two nature; whereas the machine creates also needs and compels man to serve it in order to fulfil the imagined need.^[178] Ellul clearly describes how the technical complex requires human beings to adopt to its "inorganic needs". He writes:

It is necessary, then, that technique prevail over the human being. For technique this is a matter of life or death. Technique must reduce man to a technical animal the king of the slaves of technique... The enormous effort required to put this technical civilization into motion supposes that all individual effort is directed toward this good alone and that all social forces are mobilized to attain the mathematically perfect structure of the edifice... Henceforth it will be wrong for a man to escape this universal effort. It will be inadmissible for any part of the individual not to be integrated in the drive toward technization; it will be inadmissible that any man aspire to escape this necessity of the whole society. The individual will no longer be able, materially or spiritually, to disengage himself from society. Materially, he will not be able to release himself because the technical means are so numerous that they invade his whole life and make it impossible for him to escape the collective phenomena. There is no longer an uninhabited place, or any other geographical locale for the would-be solitaire. It is no longer possible to refuse entrance into a community to a highway, a high-tension line or a dam. It is vain to aspire to live alone when one is obliged to participate in all collective phenomena and to use all the collectivity's tools without which it is impossible to earn a bare subsistence... The autonomy of technique forbids the mass of to-day to choose his destiny.^[179]

Bruno Bettelheim, a psychiatrist who survived the ordeal of imprisonment in the Nazi concentration camps, gained there invaluable insight into the dilemma of the technical complex, for, as he avers, the camps, more than anything else, attempted to exact the most efficient use of human material. When Bettelheim viewed this situation in retrospect he

realized that the gruesome atrocity perpetrated in the camps is the logical consequence of the technocratic estimation of men as mere machines.^[180]

Bettelheim makes a sage and lucid pronouncement:

Modern man suffers from his inability to make a choice, as he sees it, between renouncing freedom... or giving up the material comforts of technology... This, as I see it, is the true conflict of our times.^[181]

The point is this, there is a very high price to be paid for the cozy life in the technical complex — we have to forfeit our true natures. In the service of machines, it is the machine and not men who have the ultimate say; for in the technocracy be it in the totalitarian world or the democratic world, the individual's rights are usurped in the name of machines and industry which "serves" the collectivity. These rights are removed suddenly in totalitarian states, while in democratic socialist states they are removed gradually but unremittingly.

The faith of the technocracy is utopian — its dream is the maximum of temporal benefit for the collectivity: physical, emotional or mental.^[182] The maximum of such benefits are secured by the maximum of regimentation and industrialization. Human beings are compelled to adopt themselves to the sheer quantitative imperatives of mass production and industrial efficiency they must become faceless and interchangeable parts of the system. They must relinquish their humanity and assume the place of a commodity. Similar is the situation in an ant-hill with one difference the ants busy themselves with real material needs; whereas, the denizens of the technocracy slave and scurry for a pantheon of artificial needs. In this connection Gai Eaton has written:

...It is his [man's] nature to go his own way towards a goal which infinitely transcends this pattern [of intensive production and consumption]. To condemn him to the repetitious production of objects which have no intrinsic value, ministering not to real needs but to an insatiable greed for consumer goods, is to condemn him to futility.^[183]

If one evil face of science is futility, tyranny is another, for it has slapped on iron bridle on mankind. Let us recall that it was the father of science in England Francis Bacon who first preached the right to investigate everything in order to learn how to control and exploit the natural world. "in Bacon's programme is to be found a prescription for the total scientivization of our world, from the practices of the laboratory, often themselves of an indescribable cruelty [consider the abuses perpetrated on helpless animals] down to those, no less sinister, of the modern police state."^[184] As a consequence of scientivization privacy and individual rights and security have been trampled. This is one of the major theses in Gai Eaton's *King of the Castle* where he observes: "The contemporary world insists on straight lines, whether on the social, economic or political level."^[185]

In the brain pan of the secular mind artificial needs are distilled in the name of the collectivity and decisions are made in accordance with those "needs" and imposed on humanity with a iron fist. "Technology enables us to iron out the natural obstacles and ideology justifies the elimination of man-made obstructions.¹⁸⁶ For example, when a technocracy might decide that every couple may give birth to only two children, or that the state should determine the upbringing of children, technology enables such a decision to be enforced and ideological propaganda persuades the populace that it is in their best interest.

The common reaction whenever objections are made to science and technology is to defend them on the grounds that they have conferred on as many advantages which over compensate the disadvantages. In defence of science people will start to enumerate what they consider the most beneficial achievements like the successes of modern medicine. which includes elimination of plague; air-travel, radio, printing press, and so on without realizing that we cannot consider the apparent advantages in isolation from all the disadvantages which have accrued from the same circumstances which were the provenance of the apparent advantages.

In this connection Phillip Sherrard has succinctly written:

The world of modern science is a single interlocking whole and it is impossible to abstract one aspect of it as if this aspect could exist independently of the other aspects It is impossible to do this because any one process, however beneficial it may seem in itself, is inextricably involved with a thousand other processes and depends upon them. If you want a product such as a car you have to have all the rest as well, from the dereliction of the oil-rigs and refineries and the motorways down to the lead poison, the carbon monoxide and the noise that ruins the life of our cities and the deadly boredom of those whose work it is to put these machines together. In any case, it is entirely spurious to sing the praises of, say. modern medicine when the type of society which has produced it, and which it presupposes, is one which has done so much to deprive man of the basic elements on which his health depends.^[186]

Indeed. as Sherrard has said, modern society has bred ill-health and new diseases as well like incurable types of herpes disease and the panic-sowing AIDS disease and cancers and a great variety of mental illnesses.

Continuing his argument, let us consider another example: air travel. How can people be so elated by the possibilities opened up by air travel, like exotic vacation and rapid business transactions, when they are not ignorant of the fact that aviation has unleashed air warfare and the indiscriminate and wanton bombings of civilian populations. Further, let those who glory in the achievement of aviation consider how much universal travel has contributed to the insipid cult of uniformity^[187] the leveling of diversity, and the assimilation of the world's cultures to that way of life which is least qualitative so that little is left which is distinct, let us examine the exotic — how easily the planes shuffle us from distant airport to distant airport; yet, how similar are the airports and the humanity which drones about them all too unwonderful. In this manner we could go on indefinitely with examples examining both the credit and the debit side of the account; if we could not show definitively that the debit side exceeds the credit side at least we could demonstrate that man is not any happier or any securer than he was without modern technology.^[188]

Those who are mesmerized by technical novelties seldom reflect that in the past and in non-technical societies people adequately managed and manage their terrestrial needs. Let us take our first example of medicine; traditional medicine is far from being rudimentary, and in many aspects it surpasses modern medicine: are we to consider the acclaim acupuncture and homeopathy is receiving in the industrial world itself as unfounded? This would be unreasonable for those persons who resort to it in such developed places, like urban Japan and California choose to do so with all the benefits of modern medicine available to them, usually under government subsidization. In fact, modern medicine is not

without disadvantages and more people in the West are taking notice of the fact^[189] The first criticism that is being made by the proponents of traditional medicine is that modern medicine concerns itself primarily with removing symptoms instead of administering to the root cause of ailments; whereas, the medicine they advocate seeks to redress those imbalances in the body of which occasioned the symptoms. The second criticism is that modern drugs exert too powerful an effect on the body and commonly cause serious side-effects; whereas homeopathic and herbal medicines and pressure methods like acupuncture have no side-effects or only slight side-effects. Another common criticism is that the production of modern pharmaceuticals requires a high degree of technology, is capital intensive, and is commonly exploited by industry. On the other hand, the treatments (acupuncture) or preparations (herbal or homeopathic) of traditional medicines do not depend on sophisticated technical infrastructure, nor are they capital intensive. This is a fact which has already attracted the interest of several of the governments in the Third World who have grown weary of the economic burden of high-priced foreign pharmaceuticals.^[190]

Likewise, mankind was quite able to travel about before the advent of aviation. Although he could not travel so fast he could travel with a good deal more dignity than he can today, for even in the recent past, that is before the Second World War a traveller could expect to avail of his age-old rights of hospitality. So much so that in the Muslim world at least a traveller could set out without money and without needing to seek a hotel (few of which even existed).^[191] Some people may object that we are romanticizing because travel in the past was also hazardous and sometimes strenuous. To this

we can only answer that it is true now we can travel (if we can wangle passports and visas) in speed and comfort, but no matter how comfortably and how fast and far we travel we cannot find that world of beauty, dignity and wonder which confronted the traveller in the past on every leg of his journey.

Indeed, we could enlarge on this argument at great length as Martin Lings and Frithjof Schuon have done so eloquently and convincingly in their books, *Ancient Beliefs and Modern Superstitions*^[192] and *Light on the Ancient Worlds*,^[193] respectively, but this is not the place; hopefully the matter has been made sufficiently clear by the examples we have given.

In the foregoing discussion we have only attempted to show that the supposed benefits of modern technology are of highly questionable worth because they are greatly compromised by concomitant adversities. This is not to forget as Lord Northbourne has said:

...any fully valid criterion must take into account the salvation of souls.... The main item on the debit side is the thrusting into the background, obscuration and final perversion of the means of grace that alone can make life worth living at all, since through them alone is life sanctified and made acceptable to the God who gave it, and to whom it must be returned.^[194]

Indeed, we have been cheated in the bargain for technology. We have relinquished everything which was useful in intellectual, spiritual and salvific terms, foolishly believing we could so obtain more happiness and security, but in reality we have not become happier

or securer. We wanted live benefits for which we gave up ten virtues and acquired five vices and when we turned to

enjoy the benefits we had purchased for so awesomely high a price we found in our hand not coins of gold but an ironmonger's fraud.

There are those who will still protest that, although there are drawbacks, further re-search and development and further reforms will eventually provide a remedy. This is analogous to the castaway adrift at sea who seeks to satiate his thirst with sea-water thereby only increasing his thirst and leading to his destruction. The analogy fits because new re-search and development inescapably brings new adversities:

The solution of each problem raises further problems more quickly than they can be dealt with, so that more and more research and more and more urgent action seem al-ways to be called for.^[195]

So far we have been considering the malaise of technology in terms of how it affects mankind universally. We need to discuss how it affects Muslims in particular. The first point we have to appreciate in this connection is what Ziauddin Sardar has so rightly observed in his article "From Sweet Virtuosity to Domestic Self Reliance" in Inquiry, May 1985:

Muslim societies borrow technology from the West, but in doing so they do not and cannot get just simple hardware and techniques, but must accept along with it "the seeds of its [Western technology's) cultural origin."^[196]

Sardar applauds the analogy of Susantha Goonatilake, a philosopher of science from Sri Lanka, who has so aptly "compared the behaviour of technology to that of a social gene:

...a carrier of social relations from one society to another. In being transferred from the social system in which it originated to another social context, a particular technology

in its role as social gene 'tries' to recreate aspects of the social system which produced it in the first place. Technology, therefore, is a transmitter of social relations between social systems. In being adopted by its new host, it 'takes' elements from its new environment – hardware and knowledge as well as human operators – and rearranges them so that not only does it perform its technological function but also re-creates aspects of the social system of its place of origin. It is thus like a virus, which enters a host cell whose component material it uses for its food as well as to reproduce itself.^[197]

Sardar observes that historically every culture which has adopted Western technology has become "an extension of European culture and Western civilization"^[198] and he cites Japan as the classic example. Sardar concludes:

Western technology, therefore, is not only an instrument of physical domination and dependency but it is also a tool of cultural imperialism.^[199]

He goes on in the same article to make an astute analysis of the mechanism of what he has referred to as cultural imperialism: only that technology which suits the economic and political ends of the developing countries are exported, not those which are most suited to the local needs of the culture to which the technology is exported. The select technology made available to developing countries insures a flow of raw materials and manufactured commodities from the developed countries to the developing ones.

The only effective way of neutralizing the general Westernizing influence of Western technology is the method employed in dealing with virus infected tissue removal. However, Muslim societies at present, precisely because they are "Muslim" only in name cannot be expected to deal as drastically with imported technology as by rights they should

What is lacking is an authentic and integral Islamic mentality. When and if that can be restituted, Muslims will slough off the burden of extraneous accretions as easily a snake sheds its old sign.

We believe we have shown in this essay how the secularization of the Muslim world has been brought about by an intellectual regress which is none other than a secularization of the contemporary Muslim mind. This is what we called the intrinsic malaise and we maintain it is the cause of the extrinsic malaise, the evils of technology being but one of its manifestations. The real remedy and, in fact, only remedy is one which copes with the intrinsic malaise. It is to this then that we must first give our attention.

Al-Ghazzali insisted that we must have knowledge before action. We have seen in this essay that even Muslim intellectuals, with the exception of the few we have noted, are in-sufficiently aware of the different facets of the malaise which has resulted from the rampant Westernization of Muslim society. This being the case, the only recourse is to muster a nucleus scholars fully recognize the malady and are capable of presenting a tactful and powerful critique of the scientific perspective so that they may eventually prevail upon appropriate institutional authorities in both the madrasah and universities to initiate a discipline of intellectual criticism of Western secular thought with the purpose of eventually instilling this discipline into the educational system. Initially, such a discipline would have to be taught alongside the Western sciences and humanities given the strength of their persuasion Westernized Muslim countries today. This crucial step would at least equip Muslim students with the intellectual armory to quote S. Pervez Manzoor, to resist the and-religious world views and the tendentious theories

propounded by the Western disciplines. Eventually, when a sufficient section of the academic community was conversant with the errors and shortcomings of these disciplines, a preliminary reform could be made to eliminate their most pernicious aspects. Once the intellectual edifice of Western thought had been sufficiently shaken for Muslims to shed the inferiority complex which has made them cringe for over a hundred years, they could turn to their own intellectual tradition and discover what a rich heritage they had abandoned for the bleat and bauble of the myopic West. Eventually if Muslims were to place the confidence in Islamic Science which it indeed deserves they could consider what was of intellectual worth in modern science and integrate it into the Islamic world-view as did Muslims before them with the Greek, Persian, and Indian sciences.

As an auxiliary science springing from the Islamic revelation and dependent on it, Islamic science could provide a contemplative support for the realization of the real nature of man and the universe, and man's place in the universe which could help steer the Muslim world out of its secular plunge before it enters the sub-human modes of existence to join the others that have preceded them to the rock-bottom of decadence. Provided Muslims regain integral religious intelligence, which is to say adequate metaphysical and theological insight, it is conceivable that they might also redress the extrinsic malaise which has resulted from blindly imitating the West.

We don't propose that such a rectification might be accomplished by "turning back the clock", as the partisans of progressivism would doubtless accuse us, for barring a catastrophic world war, a total economic collapse, some other such universal calamity which would transform the developed

world, it would be highly unrealistic to suppose, even if the Islamic personality was restituted along with the rule of Shariah, that Muslims would maintain is total boycott of Western technology. However, what can be realistically entertained is the hope that genuine education of the sort we have been discussing will foster sufficient prudence among Muslims that they would eliminate the noxious forms of Western industry and technology, and retain only what was genuinely of use and did not jeopardize the Islamic way of life directly or indirectly. On the other hand, notwithstanding the foregoing it should still be recognized that many viable alternatives to modern technology which should be re-introduced in toto. Some of these are fairly obvious — like architecture, city — planning, and medicine — their preferability and utility has been observed by not a few Muslims.^[200] The merit of others is appreciable but less well recognized like unmechanized and subsistence agriculture which in the past adequately supported dense populations in places like India and China and offered a dignified and materially sufficient way of life to crores of rural peasants who constituted the bulk of the population.^[201] Unless considered from a vantage point of a totally different sense of values and world-view, including a different economic axiom and a distinct aesthetic, the merit of agriculture and traditional crafts can not be comprehended. Nonetheless, these Islamic technologies furnish a qualitatively superior alternative to Western technology, for they are in harmony with the true nature of man and in equilibrium with the natural environment.

In addition to alternatives which the Islamic legacy can provide, the West itself has in recent decades devoted a great deal of energy for the promotion of alternative technologies

which also have pre ten fiat for introduction into an Islamic world. Among those who have expounded and promoted it was the late British thinker E. F. Schumacher, who presented his ideas about new technology, economy, and business ethic in *Small Is Beautiful and Good Work*.^[202] Intermediate technology opposes the established imperatives of profit and progress and aims to serve the physical, mental and spiritual needs of people rather than maximize production. It proposes a complete re-structuring of business economy and emphasins smaller working units, regional workplaces and reviewable energy resource like wind, water and solar radiation. Although Ziauddin Sardar has argued that intermediate technology is also a Western endeavour which cannot be grafted in Muslim countries for lack of a sophisticated indigenou infrastructure, it is on the contrary quite conceivable that intermediate technology might be put to good use in the Muslim world provided an authentic Islamic sense of values was to gain ascendancy. The proof of this is that the Muslim world has already virtually adopted a hard technology which requires a maximum of training and material — nothing is to prevent Muslims from adopting or adapting technology which re-quires a minimum of training and material as soon they can see that their genuine priorities are other than the priorities of the industrial world.

However, it is not our purpose in this essay to speculate in further detail about the nature of a genuine Islamic technology of the future, for, as we have been insisting through-out, a profound change of attitude in intellectual and administrative quarters is an absolute prerequisite to the restitution of an authentic Islamic science and technology. While Muslims fret away their lives in intellectual and cultural servitude to the West, their is no hope for them to implement

an Islamic alternative. Muslims have to be disillusioned and then re-educated in their own intellectual tradition.

NOTES

^[1] Peter Moore, "Science and Technology in Traditional Islam and in the Modern World", *Studies in Comparative Religion*, Winter 1977, p. 44.

^[2] This is a famous hadith, appearing in Muslim and Tirmidhi in the chapters on faith and, as well, in Ibn Majah, Darimi and Ahmad. See, for example, *Sahih Muslim*, 4th ed., trans. A. H. Siddiqi (Lahore, Ashraf, 1980), 1, 86.

^[3] MAAS Journal of Islamic Science is a bi-annual publication of the Muslim Association for the Advancement of Science at Faridi House, Sir Syed Nagar, Aligarh, India.

^[4] Dr. Nasr was born in Tehran. He studied in the West and gained his B. Sc. degree from the Massachusetts Institute of Technology, and his M. A. and Ph. D. from Harvard University where he studied the History of Science and Learning with special attention on Islamic Science and Philosophy. From 1958 to 1962 he was Professor of the History of Science and Philosophy at Tehran University. In 1962 he was visiting lecturer at Harvard University where he taught again in the summer of 1965. In 1964-65 he was first holder of the Aga Khan Chair of Islamic Studies at the American University of Beirut. Dr. Nasr has lectured around the world in international symposiums and conferences: America, Europe, The Middle East, Pakistan, India, Japan and Australia. In 1981 he was the first Oriental invited to give the prestigious Gifford Lectures in Edinburgh, Formerly Chancellor of the Arya-Mehr University of Technology in

Iran, he is now teaching at George Washington University in America. Dr. Nasr is a prolific and gifted writer. His books which are directly related to the topic of this essay include: *Islamic Science: an Illustrated Study*, *Man and Nature*, *The Spiritual Crisis of Modern Man*, *Islam and the Plight of the Modern World*, *Science and Civilization in Islam*, *Western Science and Asian Culture*, *Islamic Life and Thought and Knowledge and the Sacred*. The last work is soon to be reprinted in Pakistan; the three previous books listed were reprinted by Suhail Academy in Lahore in 1985.

^[5] S. H. Nasr, "Intellect and intuition: Their Relation in the Islamic Perspective". *Studies in Comparative Religion*, Winter-Spring 1979, p. 65.

^[6] At-Ghazzali, *Mishkat al-Anwar*, trans. W. H. T. Gairdner (London, 1924; rpt. Lahore, Pakistan: Ashraf, 1952) pp. 80—82.

^[7] See, for example, Martin Lings, *The Book of Certainty* (New York, Weiser, 1974), Ch. XII, "The Sun and the Moon".

^[8] At-Ghazzali *The Book of Knowledge*, trans. N. A. Faris (Lahore, P. K.: Ashraf, 1962), pp. 224-225

^[9] Nasr, p. 74. See also Rene Guenon, *East and West*, trans. W. Massey (London: L. roc, 1941), P. 168.

^[10] Al-Ghazzali, p. 235.

^[11] Rene Guenon, "Civilization and Progress", *Iqbal Review*, April—June 1985, p. 1. This article is reprinted from *East and West* (Vide No. 9) where it appears as a chapter under the same title.

^[12] Rene Guenon, *The Reign of Quantity*, tram. Lord Northbourne (London, 1953; rpt. Lahore, Pakistan: Suhail Academy, 1983), p. 13.

^[13] The doctrine of the microcosm is common to all

sapiential traditions including Islam. The Qur'anic authority for the doctrine is found in the following verse: "In time we shall make them fully understand our messages [through what they perceive] in the utmost horizons [of the universe] and within themselves, so that it will become clear to them that this [revelation] is the truth." (41:53 trans. M. Asad).

^[14] Osman Bakr, "The Question of Methodology in Islamic Science", *Muslim Education Quarterly*, Autumn 1984, p. 16.

^[15] See S. H. Nast, *Knowledge and the Sacred* (Edinburgh University, 1981), pp. 114-115 where the unconventional methodologies of Dirac, Bohr, de Broglie, and D. Bohm as well as Einstein and Heisenberg are mentioned. Osman Bakr mentions in this connection R. Oppenheimer, E. S. Schrodinger and Frithjof Capra (see Bakr, p. 17). For further information see F. Capra, *The Tao of Physics*, New York, 1977; R. G. Shi, *The Tao of Science: An Essay on Western Knowledge and Eastern Wisdom*, Cambridge, Mass., 1958; E. Schrodinger, *My View of the World*, Cambridge, 1964; M. Talbot, *Mysticism and the New Physics*, London, 1981.

^[16] Bakr, p. 17.

^[17] See Guenon, *East and West*, pp. 140-143.

^[18] Rene Guenon, *Crisis of the Modern World*, trans. Pallis and Nicholson (London, 1962; rpt Lahore, Pakistan: Suhail Academy, 1981), p. 40.

^[19] Rene Guenon, *East and West*, p. 138.

^[20] Rene Guenon, *East and West*, p. 138.

^[21] *Ibid.*, pp. 140—143.

^[22] *Ibid.*, p. 138.

^[23] *Ibid.*, pp. 140-141.

^[24] *Ibid.*, p. 141.

^[25] W. N. Perry, *A Treasury of Traditional Wisdom*, quoted in E. F. Schumacher, *A Guide for the Perplexed* (U.K., 1977; rpt. London: Abacus, 1984), p. 78.

^[26] Schumacher, p. 78.

^[27] Titus Burckhardt, "Cosmology and Modern Science", in *The Sword of Gnosis*, ed. J. Needleman (London: Penguin Books, 1974), pp. 118-119.

^[28] I am indebted for the observations about individualism and the epithet "The Kingdom of Man" to Tage Lindborn, *The Tares and the Good Grain*, trans. Alvin Moore (Macon, Ga: Mercer, 1983), "Paradise and Utopia", pp. 5—14.

^[29] See Rene Guenon, "The Superstition of Science", *Iqbal Review*, Oct. — Dec. 1985, p. 2. This article is reprinted from the chapter of the same title in Guenon, *East and West*.

^[30] *Ibid.*, pp. 3-4.

^[31] *Ibid.*, p.3.

^[32] *Mid*, p. 6.

^[33] Guenon, *East and West*, p. 163. See his entire chapter "Agreement on Principles" for a masterly discussion of principles. *Ibid.*, pp 163—188.

^[34] Guenon, "Superstition of Science", p. 6.

^[35] *Ibid.*, p. 7.

^[36] *Ibid.*

^[37] Guenon, *Crisis of the Modern World*, p. 42.

^[38] Saki, p. 28, n. 2.

^[39] Vide n. 15.

^[40] Guenon, *Crisis of the Modern World*, p. 42.

^[41] Quoted in Titus Burckhardt, p. 137.

^[42] Muhammad Abduh in Egypt and Sayyid Ahmad Khan in India were among the first apologists to pretend evolutionism was compatible with religious doctrine. More '

recently even Muhammad Iqbal the poet-philosopher endorsed the theory in *Reconstruction of Religious Thought*. In the contemporary scene Dr. Israr Ahmad of Lahore advocates the same conciliatory notion as does Fateh Mali Khan in *God the Universe and Man*; Dr. Wasiullah Khan in *Evolution and the Quran* and Dr. Maurice Bucaille, *A New Muslim from France*, in *Origin of Man*.

^[43] For information on the counter-evolution movement see Martin Lings, "The Problems of Modern Knowledge and the Understanding of the Quran" *Iqbal Review*, April—June 1986. See also "Appendix I", *Ancient Beliefs and Modern Superstitions*, 2nd ed., (London: Unwin, 1980), pp. 77—82. See also Evan Shute, *Flaws in the Theory of Evolution*, (Canada: Temside, 1966); Michael Denton, *Evolution: A Theory in Crisis*, (Burnett Books, 1985); Douglas Dewar, *The Transformist illusion* (Tenn., U.S.: Dehoff, 1957); N. D. Newell, *Creation and Evolution: Myth Reality?* (New York: Columbia University Press, 1982). See also "Creation the Best Alter-native on Origins" by Richard Bliss in *Muslim Education Quarterly*, Summer 1985 for an outline of Creationist criticism of evolutionism as well as useful references on the subject. There are several institutions which the protagonists of creationism have established in North America; one is in San Diego — the Institute for Creation Research.

^[44] Dr. Nast remarks that Copernicus lunar theory is the same as was proposed by Ibn al-Shatir, an astronomer in Damascus two centuries earlier. Dr. Nast states further: "All that is astronomically new in Copernicus can be found essentially in the school of al-Tusi and his students". See S. H. Nasr, *Science and Civilization in Islam* (Cam-bridge, U.S.A., 1968; rpt Lahore, P.K.: Suhail Academy, 1983), pp. 172-174.

^[45] Ibid., pp. 174-75.

^[46] Or. Nasr deals with this theme as it concerns the Islamic tradition in his *Introduction to Islamic Cosmological Doctrines*, (London: 1978), Chapter 15.

^[47] See also Guenon, *Crisis of the Modern World*, p. 44 for a discussion of the bifurcation of astronomy and the subsequent debasement of the science.

^[48] Ibid.

^[49] Ibid.

^[50] Ibid., p. 44.

^[51] Guenon, "The Superstition of Science", p. 7.

^[52] Guenon, *Crisis of the Modern World*, p. 45.

^[53] Dr. Nasr remarks in his notes to the passage we are quoting: "For this correspondence and in fact the principles of alchemy in general see the unrivalled work of T. Burckhardt, *Alchemy: Science of the Cosmos, Science of the Soul*, trans. by W. Stoddart (London: 1967)." See also H. E. Stapleton and M. Hedayat Hussain "Three Arabic Treatises on Alchemy by Muhammad Ibn Umail al-Tamimi", *Memoirs of the Royal Asiatic Society Bengal*, vol. xii (I), 1933; A. E. Waite, *The Secret Tradition of Alchemy, Its Development and Records* (New York, 1926) and R. A. Schwaller de Lubicz, *Sacred Science*, 1982 ed. New York. Inner Traditions. 1961), pp. 7-9.

^[54] Dr. Nasr notes: "The latter connection has turned many modern students of psychology to the study of alchemy. But although there is a profound link between the two, it must be emphasized that this link is not at all to be discovered through the Jungian interpretation of "archetypes" which belong more to the garbage can of humanity than to the luminous world of the spirit. Jung's work on this subject, despite its interesting illustrations, is completely devoid of the

metaphysical foundations necessary for the understanding of the subject"

^[55] Dr. Nasr notes: See M. Eliade, *The Forge and the Crucible*, trans. by S. Corrin, (New York: 1962).

^[56] Dr. Nasr notes: On Chinese alchemy, see N. Sivin, *Chinese Alchemy: Preliminary Studies*, (Cambridge: 1968).

^[57] Dr. Nasr notes: See Nasr, *Science and Civilization in Islam*.

^[58] See Guenon, *Crisis*, p. 45.

^[59] *Ibid.*

^[60] *Ibid.*

^[61] For a peerless exposition of traditional science, see Rene Guenon, *The Reign of Quantity*, which Guenon himself indicates, was written to provide a general idea of the true nature of traditional sciences and at the same time "bringing into prominence the abyss separating them from profane sciences which are something like a caricature or parody of them." (p. 14) See also Guenon, *East and West*.

^[62] Bukhari and Muslim from Abu Said. See Mishkat. tr. Robson, III, p. 1114.

^[63] Qur'an 56: 11, M. Asad's translation, *The Message of the Quran*, (Gibraltar, Dar al-Andalus, 1980).

^[64] *Ibid.*, p. 830, n. 4.

^[65] *Ibid.* from Zubair bin Ads. See Riyad As-Salihin trans. Abdur Rahman Shad with Arabic text, (Lahore: Kati Publications, 1984), p. 78.

^[66] Consider for example the hadith from Anas: "Among the signs of the Hour are the disappearance of knowledge, the prevalence of ignorance, drinking of wine and adultery." Reported in *Sahih al-Bukhari: Kitabu 1-11m – 80*. See translation of Mulish, Khan, 6 ed., (Lahore, Kati, 1983).

^[67] Guenon, *East and West*, pp. 30-31. The entire chapter

was reprinted as an article in Iqbal Review, Spring 1985, under the same title: "Civilization and Progress".

^[68] See, for example: Guenon, "Introduction", The Reign of Quantity, pp. 7–18: "Fore-word" and Chapter I, "The Dark Age", Crisis of the Modern World, pp. vi – xii and pp. 1–14 respectively: Nasr, "Knowledge and Its Decasualization", Knowledge and the Sacred, especially chap. 1: Huston Smith, "Hope, Yes: Progress No", Forgotten Truth, New York, 1976; rpt Lahore, Pakistan: Suhail Academy, 1981). pp. 118–145; Schumacher. "On Philosophical Maps". A Guide for the Perplexed; Lord North-bourne, Looking Back on Progress, (London, 1970: rpt. Lahore: Suhail Academy, 1981); Gai Eaton, "Introduction", King of the Castle, (London. 1977: rpt. Lahore, Pakistan: Suhail Academy, 1981), pp. 7–22. Also see Phillip Sherrard, "Science and Technology in Traditional Islam and in the Modern World". Studies in Comparative Religion, Winter 1977; Lindbom. "The Time of Harvest" and "Paradise and Utopia", The Tares and the Good Grain, pp. 1–14; Moore, "Modern Science and the De-humanization of Man" vide n. 1.

^[69] Quoted in Burckhardt, "Cosmology and Modern Science", p. 186.

^[70] Tahafut al-Falassfah quoted by Gairdnrcr in Introduction to Mishkat al-Anwar, trans. W. 11. T. Gairdner (Lahore: Ashraf, 1972), p. 50.

^[71] Burckhardt p. 186.

^[72] Mishkat al-Masabih from Tirmidhi and Ibn Majah, trans. J. Robson (Lahore: Ashraf, 1964), 111, p. 1075.

^[73] Gai Eaton, The Richest Vein, (London: Faber and Faber. 1999).P 13.

^[74] Frithjof Schuon, Spiritual Perspectives and Human

Facts (London, Perennial Books, 1969), p. 23.

^[75] "I did not create men and jinn except to worship Me." (Qur'an 51:56).

^[76] Cited by al-Ghazzali in *Ihya Ulum ud Din*. Sec, The Book of Knowledge, trans. Faris, p. 30. See also *Mishkat al-Masabih* trans. Fazlul Karim as *Al-Hadis* (Lahore: Book House, 1940), I, 351. This hadith is narrated by Anas, Ibn Majah.

^[77] *Ibid.*, pp. 30-35.

^[78] Cited by Al-Ghazzali in *Ihya*. See, The Book of Knowledge, trans. Faris, p. 30.

^[79] See Ibn Majah, Introduction, 23:1 and also the prayer from Muslim cited in *Payers of Muhammad*, compiled and translated by A. H. Farid, 3rd. ed., (Lahore: Ashraf, 1969), pp. 224-225.

^[80] Al-Ghazzali in *Ihya*. See, The Book of Knowledge, trans. Faris, p. 78. (p. 27 in original Arabic).

^[81] Al-Ghazzali, *Munqidh min al-Dalal*, trans. by M. Watt in *Faith and Practice of Al-Ghazzali* (Lahore: Ashraf, 1963 ed.), pp. 34-35.

^[82] *Ibid.*, p. 34.

^[83] F. Rahman remarks in a discussion about Al-Ghazzali in *Prophecy in Islam* (London: Allen & Unwin, 1958), p. 95: "... he began to write esoteric treatises in which he admits philosophical doctrines which he rejects in works meant for the public". Long before F. Rahman, ibn Tufail (d. 1185 A.D.) also accused al-Ghazzali of inconsistency alleging that he is "bound in one place and loose in another and has denied certain things and then declared them to be true." See M. M. Sharif, *A History of Muslim Philosophy*, (Wiesbaden, Otto Harrassowitz 1963), I, pp. 639. Similarly ibn Rushd satirized al-Ghazzali for the duplicity he believed he was

guilty of: "One day you are a Yemenite when you meet a man from Yemen. But when you see someone from Ma'add you assert you are from Adnan!" (Ibid). The erudite successor of al-Ghazzali, Fakhr al-Din Razi was subjected to same accusations of inconsistency for condemning esoteric sciences ('Ulum gharibah) on the one hand and expounding them on the other. M. M. Sharif observes: "There remain among his writings treatises on theurgy (talismat), geomancy (rand), physiognomy (firasah), astrology and other similar subjects. It is curious that Imam Razi wrote all these treatises, although he was opposed to certain of these subjects like astrology which he attacked throughout his writings. He was, however, more sympathetic to the study of esoteric sciences than either the theologians or the philosophers, as is illustrated by his defence of alchemy against the charges of ibn Sina." (Ibid., I., p. 650).

The critics who charge al-Ghazzali and Razi with duplicity should have considered the matter more carefully before jumping to conclusions. Did they really think that such intellectual giants as al-Ghazzali and Razi could have been capable of such blatant contradiction and that such contradictions would have escaped the notice of the other great men who came after. If these critics did not suffer from the limitations of crude rationalism, they could have seen that the esoteric science al-Ghazzali and Razi endorsed and expounded was one thing; the exoteric sciences they deprecated was something else. The mistake is all too easily made in considering the two identical, and this explains why all al-Ghazzali did not promulgate his esoteric views to the public at large.

¹⁸⁴ See M. Saeed Sheikh, "Al-Ghazzali Metaphysics" in M. M. Sharif, *A History of Muslim Philosophy*, (Wiesbaden,

1963) I, pp. 587-588: Sami M. Najm, "The Place and Function of Doubt in the Philosophies of Descartes and al-Ghazzali" and also Watt, *The Faith and Practice of al-Ghazzali*, p. 12. See also Muhammad Iqbal *The Reconstruction of Religious Thought* (London: Humphey Milford, 1934), p. 122

^[85] Osman Bake, "The Meaning and Significance of Doubt in Al-Ghazzali's Philosophy", *Iqbal Review*, April—June 1985, pp. 29-48.

^[86] Munqidh etc. in *The Faith and Practice of Al-Ghazzali*, trans. Watt, p. 25.

^[87] *Ibid.*, on. 23-24.

^[88] *Ibid.*, p. 24.

^[89] *Ibid.*

^[90] Bakr, "The Meaning and Significance of Doubt etc." p.37.

^[91] *Viden*. 15.

^[92] Nasr. *Knowledge and the Sacred*, p. 114.

^[93] Lord Northbourne, "Chance", *Studies in Comparative Religion*, Winter 1972. p. 24.

^[94] I. R. al-Faruqi *Islamization of Knowledge* (Washington, D. C.: International Institute of Islamic Thought, 1982).

^[95] Nasr, *Islamic Life and Thought*, p. 155.

^[96] *Ibid.*, pp. 153-155.

^[97] *Ibid.*, p. 157.

^[98] This hadith is narrated by the late Muhaddith, Sheikh Muhammad Zakariyyah in "Virtues of Zikr," p. 66 in *Tablighi Nisab* (Lahore. Kutab Khana Faizi, n.d.). Maulana Zakariyyah was one of the foremost muhaddith of the subcontinent during this cen Wry. In the same place he relates several ahadith to the same effect, among them one from Anas:

"Meditation over the Creation of Allah is better than worship for eighty years".

^[109] Vide n. 72.

^[100] Frithjof Schuon: Artist and Metaphysician, (a pamphlet) (Bloomington, US: World Wisdom Books, 1981).

^[101] Ibid.

^[102] Schuon, Spiritual Perspectives etc. p. 1.

^[103] For a discussion of "presential" knowledge see Nast, "Intellect and Intuition etc.", (Vide n. 5) pp. 73-74.

^[104] Mishkat al.Masabih from Ibn Majah and Tirmidhi. See Al-Hadis, trans. Maulana Fazlul Karim, I, p. 350.

^[105] Nast, Islamic Life and Thought, p. 153.

^[106] Guenon, Crisis of the Modern World, pp. 28-36.

^[107] Ibid., pp. 32-33.

^[108] Northbourne, Religion in the Modern World, (London, 1970; rpt. Lahore, Pakistan, Suhail Academy, 1981), p. 22.

^[109] Dr. Syed al-Naquist at Attas. ed., Aims and Objectives of Islamic Education, (Jeddah: King Abdul Aziz University, 1979). pp. 3-4.

^[110] Ibid., pp. 4-5.

^[111] Ibid., pp. 4-7.

^[112] Guenon. The Superstition of Science, p. 61.

^[113] Guenon, East and West, p. 166.

^[114] Ibn Sina in Osman Bakr, The Question of Methodology in Islamic Science, p. 20.

^[115] Ibid. p. 18.

^[116] Hadith Qudsi. This hadith is quoted by Maulana Ashraf Thanvi, perhaps the fore-most authority on Islam in the subcontinent during this century, in Bada-i-'a, Lahore, Kutub Khana Jameelah, n. d.), p. 140.

^[117] Bakr. The Question of Methodology etc., p. 21.

^[118] Ibid.

^[119] On the Qur'anic premises of this doctrine, see F. Schuon, *Dimensions of Islamic*, (London: Allen and Unwin, 1970), pp. 146-147.

^[120] Sheikh Zauqi Shah, *Sirr-e-Dilbaran* (Karachi: Mehtil Zauqiyyah 1388 A. H.).

^[121] Bakr, *The Question of Methodology etc.*, p. 21.

^[122] Osman Bakr remarks in a footnote in *The Question of Methodology etc.*, p. 29, n. 22: "Man possesses within himself the complex faculties of the various souls: the mineral soul (ruh al-aqdiyyah), the vegetative soul al-nafs al-nabatiyah), the animal soul (al-nafs al-hayawaniyah) and the rational soul (al-nafs al-natiqah). Though a complete knowledge of himself as the microcosm, he therefore knows the Universe the macrocosm. See Ibn Sina's treatment of this theme in Nasr. *Introduction to Islamic Cosmological Doctrines*, (chap. 14."

^[123] Consider in this respect the Qur'anic verse: "God is the Light of the Heavens and the Earth..." (Qur'an 24:35) and the verse: God is the friend of the believers, He brings them forth from darkness unto light (Qur'an 2:257).

^[124] Bakr, *The Question of Methodology etc.* p. 21.

^[125] Ibid.

^[126] Ibid.

^[127] Ibid.

^[128] Ibn Majah, *Tirmidhi*, Vide no. 104.

^[129] Ibn Majah: *Abwab al-Zuhd: Bab al-Tawakkul wal-Yagin*. Narrated by 'Amr ibn al-'As

^[130] Al-Ghazzali lives this hadith in *Kimia Sa'adah* (The Alchemy of Happiness). Al-Nawawi said that it is not established as a hadith, and al-Muzaffar said that it is not known with a chain of transmission (isnad) reaching back to the Prophet (SAAS). Ubayd Allah Sindi al-Muhaddith said

this is a saying of Hazrat All. Either way it is a statement the truth of which is guaranteed by virtue of authority. Apart from this it is a saying which is to be valued for its implicit truth. for, as Sheikh Ibn al-Arabi has said, it is sound from the point of view of kashf (inspiration), in other words, its truth is recognized intuitively. This saying has been quoted extensively by saints and sages of Islam on account of its profound significance.

^[131] Bakr, The Question of Methodology etc., p. 25.

^[132] Ibid., p. 25.

^[133] ' Dr. Nasr describes that a segment of modern physicists including David Bohm and Frithjof Capra have questioned the standing notions of reality and speak "of an 'implicate order' resembling certain Oriental cosmological doctrines". (Knowledge and the Sacred, p. 115). This is evident from the title of Capra's books, The Tao of Physics. (vide n. 15). We quoted a passage earlier in this essay from Lord North-bourne where he remarks: "All that the physicists can rightly be said to have demonstrated is that the principle of order does not reside in the material aspect of things". (Vide no. 93). This is the "implicate order" which D. Bohm speaks about Nasr refers to the crisis confronting "frontier" physicists and then remarks: "No wonder that during recent years there have appeared a score of works seeking to relate modern physics to Oriental esoteric doctrines, some comparing nothingness of modern physics to the Buddhist doctrine of the impermanence of things, others the constant motion of particles to the cosmic dance of Sina, and yet others the idea of emptiness and the vacuum of modern physics to the Taoist void and similar conceptions... the fact that there is and has been much interest even among such leading physicists as Erwin Schrodinger, Carl Friedrich Von

Weizacker, and Bohm, as well as many others, in Oriental cosmological and metaphysical teachings points to a grouping, even within physics, which is the heart of modern science, for the sacred and a world view not bound by the reductionism imposed upon the nature of reality as such. (Knowledge and the Sacred, p. 116).

^[134] Bakr, The Question of Methodology etc., p. 26.

^[135] Ibid.

^[136] Ibid.

^[137] Ibid., p. 22.

^[138] Ibid., pp. 22-23.

^[139] Burckhardt, Cosmology and Modern Science, p. 116.

^[140] Bakr, The Question of Methodology etc., p. 27.

^[141] Ibid., p. 18.

^[142] See Al-Ghazzali Mishkat al-Anwar, trans., p. 83.

^[143] Moore, p. 49.

^[144] Northbourne, Chance, p. 27.

^[145] Bakr, The Question of Methodology etc., p. 19.

^[146] Cenon, Crisis of the Modern World, p. 62.

^[147] Ibid., pp. 62-63.

^[148] Phillip Sherrard, "Modern Science and the Dehumanization of Man", Studies in Comparative Religion, Spring 1976, pp. 74-92.

^[149] Moore. p. 42.

^[150] Ibid.

^[151] "Prometheus", Encyclopedia Britannica 1985 ed.

^[152] Moore, p. 49.

^[153] S. H. Nasr, quoted in Moore, p. 52

^[154] A celebrated historian of science.

^[155] Moore, p. 44.

^[156] Guenon, 'Civilization and Progress', pp. 9-10.

^[157] Ibid., p. 10.

- ^[158] Eaton, King of the Castle, p. 39.
- ^[159] Mishkat al-Masabih, trans. Fazlul Karim, I. p. 747
- The hadith comes from Ahmad and Baihaqi
- ^[160] (Tirmidhi) Ibid., II, 742.
- ^[161] Moore, p. 52.
- ^[162] Sherrard, p. 80.
- ^[163] Moore. p.41.
- ^[164] Ibid.
- ^[165] Parvez Manzoor, "Re-educating the Muslim Intellectual", Inquiry, July 1985. p. 39
- ^[166] Sherrard, p. 81
- ^[167] Moore, pp. 41-42.
- ^[168] Nasr, Islamic Life and Thought, p. 155.
- ^[169] Sherrard, p. 89.
- ^[170] Northbourne, Religion in the Modern World, p. 77.
- ^[171] Northbourne, Religion etc., p. 48. I am indebted to Lord Northbourne for the argument here as well as the quote.
- ^[172] Sherrard, p. 89.
- ^[173] Eaton, King of the Castle, p. 150.
- ^[174] Ibid., p. 151.
- ^[175] This epithet is originally F. Schuon's Sec. Ibid., p. 82.
- ^[176] Moore, p. 44.
- ^[177] Schuon, Spiritual Perspectives and Human Facts, p. 21.
- ^[178] Jacques Ellul in Moore, p. 48.
- ^[179] Ellul in Moore. pp. 47-48.
- ^[180] Eaton, King of the Castle, p. 38.
- ^[181] Eaton, King of the Castle, p. 52.
- ^[182] Northbourne, Looking Back on Progress, p. 82.
- ^[183] Eaton, King of the Castle, p. 52.
- ^[184] Sherrard, p. 82.

^[185] Eaton, King of the Castle, p. 45.

^[186] Sherrard, p. 91.

^[187] For the elucidation of this motif see Guenon "Uniformity Against Unity", The Reign of Quantity, especially pp. 66-67.

^[188] I am indebted for the credit-debit analogy drawn here to Lord Northbourne. See his Religion in the Modern World, p. 53.

^[189] Traditional Islamic Medicine has been greatly promoted by the Hamdard National Foundation of Pakistan. Its president, Hakim Mohammad Said has been outspoken in his support of not only traditional Islamic medicine but indigenous medicines of other cultures including the Chinese and he has proved an able exponent of traditional medicine. Hakim Said has enumerated the major shortcomings of Western medicine in his book: Traditional Greco-Arabic and Modern Western Medicine Con-

flict or Symbiosis (Karachi, The Hamdard Foundation, n.d.).

Hakim Muinuddin Chisti, a Muslim convert from the United States, is a knowledgeable practitioner of traditional medicine and also a qualified doctor in alleopathy in the United States. In conjunction with Robert Thomson he has recently produced an encyclopedia of traditional medicine: Grosser Encyclopedia of Naturopathy, published by Grosset and Dunlop, U.S. Hakim Chisti enjoys complete knowledge of both alleopathic and naturopathic medicine, and he is therefore one of the few people who are really qualified to compare the two medicines. He has proved an able exponent of traditional medicine and a strong critic of alleopathy. He is devoted to promoting traditional medicine and is at present working on yet another encyclopedia on the subject.

^[190] See Dr. Akbar Mohammad Ali, "Traditional Medicine in Africa." Inquiry, Sept. 1985. See also "When Medicine Becomes a Disease," Arabia, March 1986.

^[191] One need not refer so far back to those famed travellers of antiquity Ibn Batuta and Ibn Jubayr to learn how much respect and solicitude was lavished on travellers, for we can learn of it from the travels of the Muhammad Asad. an Austrian convert to Islam, just after the First World War. See his book. The Road to Mecca (London, Max Reinhardt. 1954); where he describing his wandering in the Middle East. Iran and Afghanistan.

^[192] Martin Lings. Ancient Beliefs and Modern Superstitions (London: Perennial Books. 1965).

^[193] Frithjof Schuon, Light on the Ancient Worlds, it. Lord Northbourne (London. Perennial Books. 1965).

^[194] Northbourne Religion in the Modern World, p. 53.

^[195] Ibid., p. 55.

^[196] Ziauddin Sardar. "From Sweet Virtuosity to Domestic Self Reliance", Inquiry May 1985,p. 42.

^[197] Ibid. p. 43.

^[198] Ibid., p. 42.

^[199] Ibid.

^[200] The famous Egyptian architect Hasan lathy has greatly promoted integrally Islamic architecture during the last forty years. Further, he has eloquently expounded the basic premises of Islamic architecture. See for example his book Architecture for the Poor. An article describing the work of Hasan lathy appeared in Inquiry in June 1984: "For Prince and Peasant". A new Muslim from the late Titus Burckhardt, a new Muslim from Switzerland, likewise spent much effort in promoting and ex-pounding Islamic architecture. See particularly his Fez, City of Islam, Moorish Culture in Spain

and Art of Islam. As for Islamic medicine see our common is in n. 189.

^[201] Lord Northbourne writes in a chapter "A Glance at Agriculture" in *Looking Back on Progress*, p. 81: "It is undeniable that very dense populations have fed themselves for long periods without modern techniques but their approach to life and its problems and their sense of values were so different from ours that we cannot as a society even understand them, let alone live as they did". In substantiation of this thesis Lord Northbourne invites us to see for example, Dr. S. T. Wrench, *The Wheel of Health* (London: C. W. Daniel Co., 1938), a study of the Hunza people of Northern Pakistan; and F. H. King and Mrs. King, *Farmers of Forty Centuries*, (Madison, U.S.A. 1911), a study of Chinese peasantries. Lord Northbourne's chapter just mentioned offers some very interesting reflections on modern agriculture and traditional subsistence agriculture exposing some of the modern presumptions. See the *Green Revolution An Obituary*, *Inquiry*, March 1986 for a realistic criticism of high technology, in agriculture.

^[202] E. F. Schumacher, *Small is beautiful*, (U.K., 1973: rpt London: Abacus, 1974) *Good Work*, (U.K., 1979: rpt London: Abacus, 1980).