THE SCIENCE OF NONLOCALITY AND THE ULTIMATE REALITY FURTHER REMARKS AND RELEVANT EXTRACTS

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Part-I

Ultimate Reality- The Absolute,

The Infinite and The Perfect

Summary

Metaphysics does not begin with Being but with that Ultimate Reality which is at once the Absolute, the Infinite and the Perfect Good and which contains all the possibilities of manifestation. Beyond being in Itself, It is the Principle of Pure Being which is the first determination of the Beyond-Being in the direction of manifestation and creation. Inasmuch as it infinite, the Ultimate Reality must possess all possibilities including the possibility of the negation of Itself which is the world or manifestation. There is therefore a projection towards nothingness which constitutes the cosmogonic act and brings all things into existence. The Beyond-Being generates Pure Being, Pure Being generates Universal Existence and Universal Existence actualizes and externalizes the latent possibilities in the world of existence as usually understood. In a hierarchic fashion there is a descent in the direction of nothingness or non-existence without this limit every being reached.²¹⁹

Dimensions, Modes, and Degrees of the Divine Order²²⁰

²¹⁹ From S. H. Nasr, (Ed.) "Introduction" in *The Essential writings of Frithjof Schuon*, Amity House, 1986, (rpt. Lahore: Suhail Academy, 2002). pp. 309-311.

²²⁰ From S. H. Nasr, (Ed.) "Metaphysics" in *The Essential writings of Frithjof Schuon*, Amity House, 1986, (rpt. Lahore: Suhail Academy, 2002). pp. 309-311.

The idea that the Supreme Principle is both Absolute Reality and, for that very reason, Infinite Possibility, can suffice unto itself, for it contains everything, notably the necessity for a universal Manifestation. From a less synthetic point of view, however, we may envisage a third hypostatic element, namely the Perfect Quality; being the Absolute, the Principle is thereby the Infinite and the Perfect. Absoluteness of the Real, infinitude of the Possible, perfection of the Good; these are the "initial dimensions" of the Divine Order.

This order also comprise "modes": Wisdom, Power, Goodness, that is, the content or the substance of the Supreme Principle consists in these three modes and each of them is at once Absolute, Infinite and Perfect; for each divine mode participates by definition in the nature of the divine Substance and thus comprises absolute Reality, infinite Possibility and perfect Quality. In Wisdom, as in Power and as in Goodness, there is in fact no contingency, no limitation, or any imperfection; being Absolute, these modes cannot not be, and being Infinite, they are inexhaustible; being Perfect, they lack nothing.

The Principle not only possesses "dimensions" and "modes", it also has degrees, and this in virtue of its very Infinitude, which projects the Principle into Relativity and thus produces, so to speak, this metacosmic "space" which we term to Divine Order. These degrees are the divine Essence, the divine Potentiality and the divine Manifestation; or Beyond-Being, Being, the Creator, and the Spirit, the existentiating Logos, which constitutes the divine Centre of the total cosmos.

Necessity and Liberty; Unicity and Totality. One the one hand, the Absolute is "necessary" Being, that which must be, which cannot not be, and which for that very reason is unique; on the other hand, the Infinite is "free" Being, which is unlimited and which contains all that can be, and which for that very reason is total.

This absolute and infinite, necessary and free, unique and total Reality is *ipso facto* perfect: for it lacks nothing, and it possesses in consequence all that is positive; it suffices unto itself. That is, the Absolute, like the Infinite which is as its intrinsic complement, its *shakti*, coincides with Perfection; the Sovereign Good is the very substance of the Absolute.

In the world, the existence of things, hence their relative reality, is derived from the Absolute; their containers, their diversity and their multiplicity, thus space, time, form, number, are derived from the Infinite; and finally, their qualities, whether substantial or accidental, are derived from Perfection. For Perfection, the Sovereign Good, contains the three Modes or hypostatic Functions which we have just mentioned, namely: Intelligence or Consciousness, or Wisdom, or Ipseity; Power or Strength: Goodness which coincides with Beauty and Beatitude. It is Infinitude which so to speak projects the Sovereign Good into relativity, or in other words, which creates relativity, *Maya*; it is in relativity that the supreme Qualities become differentiated and give rise to the Qualities of the creation, inspiring and acting Divine, thus to the personal God; it is from Him that are derived all the cosmic qualities with their indefinite gradations and differentiations.

To say Absolute is to say Reality and Sovereign Good; to say Infinite is to say in addition communication, radiation, and in consequence, relativity; hence also differentiation, contrast, privation: the Infinite is All-Possibility. *Atma* wills to clothe even nothingness, and it does so by and in *Maya*.

The Infinite, by its radiation brought about so to speak by the pressure—or the overflowing—of the innumerable possibilities, transposes the substance of the Absolute, namely the Sovereign Good, into relativity; this transposition gives rise *a priori* to the reflected image of the Good, namely the creating Being. The Good, which coincides with the Absolute, is thus prolonged in the direction of relativity and gives rise first of all to Being, which contains the archetypes, and then to Existence, which manifests them in indefinitely varied modes and according to the rhythms of the diverse cosmic cycles.

The Absolute is that which "cannot not be"; and the necessity of Being excludes all "that which is not It." In an analogous but as it were inverse manner, the Infinite is that which "can be all"; and the liberty of Being includes all "that which is It", hence all that is possible, this "all" being limitless, precisely. In other words: God alone is necessary Being: in Him there is nothing contingent or, for all the more reason, arbitrary; and on the contrary, outside of Him, there are only contingent existences; and God alone is free Being: in Him there is no determination *ab extra* or any

constraint, and on the contrary, outside of Him, there are only the existences and on the contrary, outside of Him, there are only the existences that He determines. On the one hand, an existence may or may not be, and that is its contingency; on the other hand, the existence of a thing contains but one possibility, that of that thing and nothing else—and that is its limitation whereas the being of God contains all that is possible.

Or again: God, by His nature, hence by necessity, "must" create, but He "is free" to create what He wills in virtue of His liberty; He is "necessary" in the In-Itself-ness, yet He is free in the modalities. In other words: God "is free" to create what He wills—and He can will only in conformity with His nature—but He "must" follow the logic of things; His activity is necessary in laws and structures, while being free in their contents.

The Interplay of the Hypostases

To say Absolute, is to say Infinite; Infinitude is an intrinsic aspect of the Absolute. It is from this "dimensions" of Infinitude that the world necessarily springs forth; the world exists because the Absolute, being such, implies Infinitude.

This Absolute-Infinite is the Sovereign Good; the Agathon of Plato. Now the Good—according to the Augustinian formula—tends essentially to communicate itself; being the Sovereign Good, the Absolute-Infinite cannot but project the world; which is to say that the Absolute, being the Sovereign Good, comprises thereby Infinitude and Radiation.

If we were to be asked what the Absolute is, we would reply first of all that it is necessary and not merely possible Reality; absolute Reality, hence infinite and perfect, precisely; and we would add—in conformity with the level of the question asked—that the Absolute is that which, in the world, is reflected as the existence of things. Without the Absolute, there is no existence; the aspect of absoluteness of a thing is what distinguishes it from inexistence, if one may so put it. Compared to empty space, each grain of sand is a miracle.

If we were to be asked further what the Infinite is, we would reply, with the quasi-empiricist logic demanded by the question itself that the Infinite is that which, in the world, appears as modes of expanse or of extension, such as space, time, form or diversity, number or multiplicity, matter or substance. In other words, and to be more precise: there is a conserving mode, and this is space; a transforming mode, and this is time; a qualitative mode, and this is form, not inasmuch as it limits, but inasmuch as it implies indefinite diversity; a quantitative mode, and this is number, not inasmuch as it fixes a given quantity, but inasmuch as it too is indefinite; a substantial mode, and this is matter, it too being without limit as is shown by the star-filled sky. Each of these modes has its prolongation—or more exactly its basis—in the animic state and beyond, for these modes are the very pillars of universal existence.

Finally, if we were to be asked what Perfection or the Sovereign Good is—for to say God is to say Goodness, as is indicated by the very expression of a "good God"—we would say that it is that which, in the world, is manifested as qualities and, more concretely, as qualitative phenomena; perfections and perfect things. We say "that which manifests" and not "that which is": the existential categories, the qualities of things, but all of these factors manifest, precisely, what the Divine Hypostases—if one may say so are in themselves and beyond the world.

PART-II

Ultimate Reality— Metaphysical-Exposition

If one were to ask what is metaphysics, the primary answer would be the science of the Real or, more specifically, the knowledge by means of which man is able to distinguish between the Real and the illusory and to know things in their essence or as they are, which means ultimately to know them *in divinis*.²²¹ The knowledge of the Principle which is at once the absolute and infinite Reality is the heart of metaphysics while the distinction between levels of universal and cosmic existence, including both the macrocosm and the microcosm, are like its manifestation but also the principles of the various sciences of a cosmological order. At the heart of the traditional sciences of the cosmos, as well as traditional anthropology, psychology, and

²²¹ This element comprises the heart of all traditional doctrine while the method concerns means of attaching oneself to the Real. On the relation between doctrine and method see M. Pallis, "The Marriage of Wisdom and Method," *Studies in Comparative Religion* 6/2 (1972): 78-104.

aesthetics stands the scientia sacra which contains the principles of these sciences while being primarily concerned with the knowledge of the Principle which is both sacred knowledge and knowledge of the sacred par excellence, since the Sacred as such is none other than the Principle.

The Principle is Reality in contrast to all that appears as real but which is not reality in the ultimate sense. The Principle is the Absolute compared to which all is relative. It is Infinite while all else is finite. The Principle is One and Unique while manifestation is multiplicity. It is the Supreme Substance compared to which all else is accident. It is the Essence to which all things are juxtaposed as form. It is at once Beyond Being and being while the order of multiplicity is comprised of existents. It alone is while all else becomes, for It alone is eternal in the ultimate sense while all that is externalized partakes of change. It is the Origin but also the End, the alpha and the omega. It is Emptiness if the world is envisaged as fullness and Fullness if the relative is perceived in the light of its ontological poverty and essential nothingness.²²² These are all manners of speaking of the Ultimate Reality which can be known but not by man as such. It can only be known through the sun of the Divine Self residing at the centre of the human soul. But all these ways of describing or referring to the Principle possess meaning and are efficacious as points of reference and support for that knowledge of the Real that in its realized aspect always terminates in the Ineffable and in that silence which is the "reflection" or "shadow" of the non-manifested aspect of the Principal upon the plane of manifestation. From that unitary point of view, the Principle or the Source is seen as not only the Inward but also the Outward,²²³ not only the One but also the essential reality of the many which is but the reflection of the One. At the top of that mountain of unitive knowledge there resides but the One, discrimination between the Real and

²²² Some contemporary scholars such as R. Panikkar (in his *Inter-religious Dialogue*, New York, 1978) have contrasted the Buddhist *Shumyata* and the Christian Pleroma but, metaphysically speaking, the concept of Ultimate Reality as emptiness and as fullness complement each other like the *yin-yang* symbol and both manifest themselves in every integral tradition. Even in Christianity where the symbolism of Divine Fullness is emphasized and developed with remarkable elaboration in Franciscan theology, esp. that of St. Bonaventure, the complementary vision of emptiness appears in the teachings of the Dominican Meister Eckhart who speaks of the "desert of the Godhead".

²²³ In one of the most difficult verses to comprehend from the exoteric point of view the Qur'an states, "*He is the First and the Last; the Outward and the Inward*" (LVII:3).

the unreal terminates in the awareness of the non-dual nature of the Real, the awareness which is the heart of gnosis and which represents not human knowledge but God's knowledge of Himself, the consciousness which is the goal of the path of knowledge and the essence of *scientia sacra*.²²⁴

The Ultimate Reality is at once Absolute and Infinite since no finite reality can be absolute due to its exclusion of some domain of reality. This reality is also the Supreme Good or the Perfection which is inseparable from the Absolute. Reality, being at once Absolute, Infinite, and Supreme Goodness or Perfection, cannot but give rise to the world or multiplicity which must be realized for otherwise that Reality would exclude certain possibilities and not be infinite. The world flows from the infinitude and goodness of the Real for to speak of goodness is to speak of manifestation, effusion, or creation and to speak of infinity is to speak of all possibilities including that of the negation of the Principle in whose direction the cosmogonic process moves without ever realizing that negation completely, for that total negation would be nothingness pure and simple.

Since the world or manifestation or creation issues from that Reality which is at once Absolute, Infinite, and Perfection or Goodness, these Hypostases of the Real or the Divine must be also reflected in the manifested order. The quality of absoluteness is reflected in the very existence of things, that mysterious presence of each thing which distinguishes it from all other things and from nothingness. Infinitude is reflected in the world in diverse modes in space which is indefinite extension, in time which is potentially endless duration, in from which displays unending diversity, in number which is marked by endless multiplicity, and in matter, a substance which partakes potentially of endless forms and divisions. As for Goodness, it is reflected in the cosmos through quality itself which is indispensable to existence however eclipsed it might become in certain forms in the world of multiplicity which are removed as far as possible from the luminous and

²²⁴ This is the view of the Advaita Vedanta in Hinduism and of the transcendent Unity of Being (*Wahdat al-wujud*) in Sufism which, because of the myopia of a reason divorced from the sanctifying rays of the Intellect, have been often mistaken for Pantheism. See Nasr, *Three Muslim Sages*, Cambridge, Mass., 1964, pp. 104-8; also T. Burckhardt, *Introduction to Sufi Doctrine*, pp. 28-30.

essential pole of manifestation. Space which preserves, time which changes and transforms, form which reflects quality, number which signifies indefinite quantity and matter which is characterized by limitless substantiality are the conditions of existence of not only the physical world but the worlds above reaching ultimately the Divine Empyrean and the Divine Hypostases of Absoluteness, Infinity, and Perfection themselves.

Moreover, each of the Divine Hypostases is reflected in a particular manner in the five conditions of existence. Absoluteness is reflected in space as centre, in time as the present moment, in matter as the ether which is the principle of both matter and energy, in form as the sphere which is the most perfect of forms and generator of all other regular geometric forms that are potentially contained in it, and in number as unity which is the source and principle of all numbers. Infinitude is reflected in space as extension which theoretically knows no bound, in time as duration which has logically no end, in matter as the indefiniteness of material substantiality, in form as the unlimited possibility of diversity, and in number as the limitlessness of quantity. As for Perfection, it is reflected in space as the contents or objects in space reflecting Divine Qualities and also as pure existence which as the Sufis say is the "Breath of the Compassionate" (nafas al-rahman), in space and time likewise as shapes and events possessing quality, in form as beauty and in number as that qualitative aspect of number always related to geometric forms which is usually associated with the idea of Pythagorean number. Scientia sacra see these aspects of cosmic existence as reflection upon the plane or the multiple planes of manifestation of the Supreme Hypostases of Absoluteness, Infinitude, and Goodness which characterize the Real as such. It also sees each of these conditions of existence as reflecting directly an aspect of the Divinity: matter and energy the Divine Substance, form the Logos, number the Divine Unity which is inexhaustible, space the infinite extension of Divine Manifestation, and time the rhythms of the universal cycles of existence which the Abrahamic traditions allude to in passing as for as their official, formal theologies are concerned and which Hinduism highlights, referring to them as days and nights in the life of Brahma.

The Ultimate Reality which is both Supra-Being and Being is at once transcendent and immanent. It is beyond everything and at the very heart and centre of man's soul. *Scientia sacra* can be expounded in the language of one as well as the other perspective. It can speak of God or the Godhead, Allah, the Tao, or even nirvana as being beyond the world, or forms or samsara, while asserting ultimately that nirvana is samsara, and samsara, nirvana. But it can also speak of the Supreme Self, of Atman, compared to which all objectivization is *maya*. The Ultimate Reality can be seen as both the Supreme Object and the Innermost Subject, for God is both transcendent and immanent, but He can be experienced as immanent only after He has been experienced as transcendent. Only God as Being can allow man to experience the Godhead as Supra-Being. The unitive knowledge which sees the world not as seperative creation but as manifestation that is united through symbols and the very ray of existence to the Source does not at all negate the majesty of transcendence. Without that majesty, the beauty of Divine Proximity cannot be beheld and integral metaphysics is fully aware of the necessity, on its own level, of the theological formulations which insist upon the hiatus between God and man or the Creator and the world. The metaphysical knowledge of unity comprehends the theological one in both a figurative and literal sense, while the reverse is not true. That is why the attainment of that unitive knowledge is impregnated with the perfume of sanctity which always strengthens the very foundations of the religion with which the formal theology in question is concerned, while the study of formal theology can never result in that *scientia sacra* which simply belongs to another dimension and which relies upon another aspect of the functioning of the Intellect upon the human plane.

Metaphysics does not only distinguish between the Real and the apparent and Being and becoming but also between grades of existence. The hierarchic nature of reality is a universal assertion of all traditions and is part and parcel of their religious practices as well as their doctrines, whether conceived in terms of various hosts and orders of angels as described in the famous *Celestial Hierarchies* of Dionysius, or levels of light and darkness as in certain schools of Islamic esoterism, or as various orders of gods and titans as in religions with a mythological structure such as Hinduism. Even in Buddhism for which the Supreme Principle is seen as the Void or Emptiness rather than Fullness, the vast intermediate worlds are depicted with remarkable power and beauty in both Buddhist cosmological texts and Buddhist art. The emphasis upon the hierarchic structure of reality in traditional doctrines is so great that a famous Persian poem states that he who does not accept the hierarchy of existence is an infidel (*zindiq*).²²⁵ Here again *scientia sacra* which is concerned with the nature of reality is distinguished from theology as usually understood, which can reality based on God and man without emphasis upon the hierarchy of existence, although even in theology many schools have not failed to take into consideration the existence if not always the full significance of the intermediate planes of reality.²²⁶

The relation between the various levels of reality or hierarchy of existence cannot be fully understood without taking into consideration another important notion found in one way or another in all the complete expressions of the *scientia sacra*, this notion being that of necessity to which is contrasted the notion of possibility. The distinction between necessity and possibility is the cornerstone of the philosophy of Ibn Sina (Avicenna) who has been called the "philosopher of being" and father of medieval ontology.²²⁷ But the significance of both of these terms is of a purely metaphysical order and cannot be limited to the philosophical realm, even if this be traditional philosophy. It is the fruit of intellection rather than ratiocination as are in fact many of the tenets of traditional philosophy which veil in a syllogistic grab intuitions of a purely metaphysical nature. The presence of the notions of necessity and possibility in both Hindu and Far Eastern doctrines point in fact to realities of a universal order not at all limited to one particular mode of exposition or school of metaphysics.

Necessity is opposed to possibility conceptually but, if the meaning of possibility is understood fully, it will be seen that in one sense it complements necessity and is opposed to necessity only in one of its meaning. The root of possibility is related to potentiality and also "puissance," all three words being derived from posse, which means, "to be able to." Possibility has in fact two meanings: one, the quality or character of something that can exist or not exist; and two, the quality or character of

²²⁵ gar farq i maratib na kuni zindiqi

²²⁶ In Islam such a widespread theological school as Ash'arism is characterized by its rejection of the hierarchy of existence in conformity with its atomistic and voluntaristic point of view.

²²⁷ On this question see Nasr, *An Introduction to Islamic Cosmological Doctrines*, chap. 12, "The Anatomy of Being." In Arabic "necessity" is *mujub* and "possibility" *imkan*, which in the context of Avicennan ontology we translate as "contingency".

something which has the power and capability to perform or carry out an act. In the first sense the quiddities of things are possible, or contingent; an object can exist or not exist and there is no logical or metaphysical contradiction whether, let us say, a horse exists or not. In this sense but on a higher level, the archetypes or what Islamic metaphysics call *al-'ayan al-thabitah* or "immutable essence"²²⁸ are also possible beings, only God being necessary. Taken in this meaning of the term, possibility is opposed to necessity while things which do exist and therefore must exist have become necessary not through their own essence but through the Necessary Being which alone is necessary in Itself. That is why, to use the language of Islamic philosophy again, they are called *al-wajib bi 'l-ghayr*, literally "that which is made necessary by other than itself," the "other" being ultimately the Necessary Being.

In the second sense of the meaning of possibility as power, it is not opposed to necessity but complements it as far as the Principle is concerned. God is Absolute Necessity and Infinite Possibility, the omnipotence of God reflected in the Divine Attribute *al-Qadir* in the Qur'an, meaning exactly possibility in this second sense. Whatever happens in this world is according to the Will of God but also in conformity with a Divine Possibility. God could not will what is not possibility in this sense for He would then negate His own Nature. Whatever claims a blind type of religious voluntarism might make, God's omnipotence cannot contradict His Nature and when the Gospel claims, "With God all things are possible," it is referring precisely to this Infinite Possibility of God.

Each world brought into being corresponds to a Divine Possibility and gains existence through the Divine Will which operates on different levels, sometimes appearing as contradictory to be eyes of the earthly creature. But there is never anything arbitrary about what God wills; His wisdom complements His Will and His Nature remains inviolable.

As far as necessity is concerned, it can be said that although the medieval philosophers called pure Being the Necessary Being, strictly speaking only the Beyond Being or Ultimate Reality is necessity in Itself and necessary with respect to Itself. Being is necessary vis-à-vis the world so that from the point of view of the world or of multiplicity, it can be legitimately

²²⁸ On the immutable essences see T. Burckhardt, Introduction to Sufi Doctrine, pp. 62-64.

considered as the Necessary Being. But Being can also be considered as Possibility as such which must be distinguished from the possibilities which are qualities of Being. These qualities possess two aspects: they are contingent or possible in relation to the Principle or Essence, that is, they can exist or not exist, and they are necessary in their content and so participate in the necessity of the Essence. From the consideration of these two aspects one can see that there are two kinds of possibilities: those which reflect necessity and those which reflect contingency. The first kind engenders objects which definitely exist and the second those which can possibly not exist.

God gives existence to possibilities which are so many reflections and reverberations of Being and from this breathing of existence upon the quiddities of possibilities the world and, in fact, the myriad of worlds are born. That Divine Relativity or *maya*, as it is projected toward nothingness and away from the Source, produces privative modalities and inversions of these possibilities whose origin is positive reflection and inversion, polarization of light and casting of shadows, luminous Logos and dark Demiurge. Being as Possibility is Itself the supreme veil of the Reality which in Itself is not only Infinite but also Absolute, that Essence which is beyond all determination.²²⁹

In short this type of "study" of the cosmos in the traditional context is the contemplation of certain natural forms as reflecting Divine Qualities and the vision of the cosmos *in divinis*. This perspective is based on the power of forms to be occasions for recollection in the Platonic sense and the essential and of course not substantial identity of natural forms with their paradisal origin. Spiritual realization based on the sapiential perspective implies also this "metaphysical transparency of natural forms and objects" as a necessary dimension and aspect of "seeing God everywhere." In reality the traditional cosmological sciences lend themselves to being such a support for

²²⁹ "Nous pouvons discerner [dans l'absolument Réel] une tridimensionalité, elle aussi intrinsèquement indifférenciée mais annonciatrice d'un déploiement possible: ces dimensions sont l'Étre' la 'Conscience', la 'Félicité'. C'est en vertue du troisième élément-immuable en soi-que la Possibilité divine déborde et donne bien, 'par amour', àce mystère d'estériorisation qu'est le Voile universel, don't la chine est faite des mondes, et la traine, des êtres." Schuon, "Le problème de la possibilité," in *Du Divin à l'humain*.

contemplation besides making available a veritable science of various realms of the cosmos. What is in fact traditional cosmology but a way of allowing man to contemplate the cosmos itself as an icon! Therefore, both types of knowledge of the cosmos, as viewed from the perspective of sacred knowledge and through eyes which are not cut off from the sanctifying rays of the "eye of the heat," reveal the cosmos as theophany. To behold the cosmos with the eye of the intellect is to see it not as a pattern of externalized and brute facts, but as a theatre wherein are reflected aspects of the Divine Qualities, as the theophany of that Reality which resides at the Centre of the being of man himself. To see the cosmos as theophany is to see the reflection of one-Self in the cosmos and its forms.²³⁰

In Islam the correspondence between man, the cosmos, and the sacred book is central to the whole religion. The sacred book of Islam is the written or composed Qur'an (al-Qur'an al-tadwini) as well as the cosmic Qur'an (al-Qur'an al-takwini). Its verses are called ayat which means also signs or symbols to which the Qur'an itself refers in the verse "We shall show them our portents upon the horizon [afaq] and within themselves [anfus], until it be manifest unto them that it is the truth" (XLI; 53). The avat are the Divine Words and Letters which comprise at once the elements of the Divine Book, the macrocosmic world and the inner being of man. The ayat manifest themselves in the Holy Book, the horizons (afaq) or the heavens and earth and the soul of man (anfus). To the extent that the ayat of the sacred book reveal their inner meaning and man's outer faculty and intelligence become wed once again to the inner faculties and the heart, and man realizes his own being as a sign of God, the cosmos manifests itself as theophany and the phenomena of nature become transformed into the avat mentioned by the Qur'an, the *ayat* which are none other than the *vestigia Dei* which an Albertus Magnus or John Ray sought to discover in their study of natural forms.²³¹ Likewise, the theophanic aspect of virgin nature aids in man's discovery of his own inner being. Nature is herself a divine revelation with its own

²³⁰ On the theme of seeing he Divine Presence in all things see Schuon, "Seeing God Everywhere," in his *Gnosis, Divine Wisdom*, pp. 106-21.

²³¹ S. H. Nasr developed this idea extensively in our various works on the Islamic sciences esp. *An Introduction to Islamic Cosmological Doctrines*, prologue; *Science and Civilization in Islam*, p. 24; and *Ideals and Realities of Islam*, pp. 54ff.

metaphysics and mode of prayer, but only a contemplative already endowed with sacred knowledge can read the gnostic message written in the most subtle manner upon the cliffs of high mountains, the leaves of the trees,²³² the faces of animals and the stars of the sky.

PART-III

MODERN SCIENCE—A FEW CRITIQUES

1-Light and its Speed

We know that the discovery of the fact that the speed of light, when measured both in the direction of the rotation of the earth and in the direction opposite to that rotation, is invariable, has confronted modern astronomers with the alternative either of accepting the immobility of the earth or else of rejecting the usual notions of time and space. Thus it was that Einstein was led into considering space and time as two relative dimensions, variable in function of the state of movement of the observer, the only constant dimension being the speed of light. The latter would everywhere and always be the same, whereas time and space vary in relation to one another; it is as if space could shrink in favour of time, and inversely.

If it be admitted that a movement is definable in terms of a certain relationship of time and space, it is contradictory to maintain that it is a movement, that of light, that measures space and time. It is true that on a quite different plane—when it is a question of the intelligible light—the image of light 'measuring' the cosmos and realizing it thereby is not devoid of deep meaning. But what we have in view here is the physical order, which alone is considered, and with good cause, by Einstein's theory; it is therefore in this context that we will put the following question: what is this famous 'constant number' that is supposed to express the speed of light? How can movement having a definite speed—and its definition will always be a relationship between space and time—itself be a quasi-'absolute' measure of these two conditions of the physical world? Is there not here a confusion between the principal and quantitative domains? That the movement of light

²³² According to a famous Persian Sufi poem by Sa'di, Upon the face of every green leaf is inscribed For the people of perspicacity, the wisdom of the creator

is the fundamental 'measure' of the corporeal world we willingly believe, but why should this measure itself be a number, and even a definite number? Moreover, do the experiments, which are supposed to prove the constant character of the speed of light, really get beyond the earthly sphere, and do they not imply both space and time as usually imagined by us? Thus '300,00 km per second' is stated to be the speed of light, and it is held that here is a value which, if it be not necessarily everywhere expressed in this manner, does nonetheless remains constant throughout the physical universe. The astronomer, who counts, by referring to the lines of the spectrum, the lightyears separating us from the nebula of Andromeda, supposes without more ado that the universe is every-where 'woven' in the same manner. Now, what would happen if the constant character of the speed of light ever came to be doubted—and there is every likelihood that it will be sooner or later—so that the only fixed pivot of Einstein's theory would fall down? The whole modern conception of the universe would immediately dissolve like a mirage.

2-Matter

In conformity with the mathematical schematism, matter itself is conceived as being discontinuous, for atoms, and their constituent particles, are supposed to be even more isolated in space than are the stars. Whatever the current conception of the atomic order may be—and theories on this subject change at a disconcerting speed—it is always a case of groupings of corporeal 'points'.

Let us here recall the traditional doctrine of matter:²³³ it is from the starting-point of 'first matter' that the world is constituted, by successive differentiation, under the 'non-acting' action of the form-bestowing Essence; but this *materia prima* is not tangible matter, it underlies all finite existence, and even its nearest modality, *materia signata quantitate*, which is the basis of the corporeal world, is not manifested as such. According to a most judicious expression of Boethius,²³⁴ it is by its 'form'—in other words, its qualitative aspect—that a thing is known, 'form being like a light by means of which we know what a thing is'. Now *materia* as such is precisely that which is not yet formed and which by that very fact eludes all distinctive knowing. The world

²³³ Rene Guenon, *The Reign of Quantity*, (Penguin, 1972), Ch. 2, rpt. (Lahore: Suhail Academy, 1988).

that is accessible to distinctive knowledge thus extends between two poles that are unmanifested as such (the form-bestowing Essence and undifferentiated *materia*) just as the range of colours in the spectrum unfolds through the refraction of white—and therefore colourless—light in a medium that is also colourless.

Modern science, which despite its pragmatism is not behindhand in claiming to complete and comprehensive explanation of the sensible universe, strives to reduce the whole qualitative richness of this universe to a certain structure of matter, conceived as a variable grouping of minute bodies, whether these be defined as genuine bodies or as simple 'points' of energy. This means that all the 'bundles' of sensible qualities, everything that constitutes the world for us, except space and time, have to be reduced, scientifically speaking, to a series of atomic 'models' definable in terms of the number, mass, trajectories, and speeds of the minute bodies concerned. It is obvious that this reduction is in vain, for although these 'models' still comprise certain qualitative elements—if only their imaginary spatial form it is nonetheless a question of the reduction of quality to quantity—and quantity can never comprehend quality.

On the other hand, the elimination of the qualitative aspects in favour of a tighter and tighter mathematical definition of atomic structure must necessarily reach a limit, beyond which precision gives way to the indeterminate. This is exactly what is happening with modern atomist science, in which mathematical reflection is being more and more replaced by statistic and calculations of probability, and in which the very laws of causality seem to be facing bankruptcy. If the 'forms' of things are 'light', as Boethius said, the reduction of the qualitative to the quantitative can be compared to the action of a man who puts out all the light the better to scrutinize the nature of darkness.!

3-Critical Overview

During the last few years so many critiques have been written of modern science and its recent handmaid, technology,²³⁵ that one hardly needs to go

²³⁵ It is really only since the early decades of the nineteenth century that technology in the West has become wed closely to modern science and has constituted its direct application. Before this relatively recent past, science and technology followed two very different courses with few significant reactions between them.

once again into all the arguments ranging from the ecological and demographic to the epistemological and theological. But to bring out fully the meaning of the traditional sciences of nature and the significance of the cosmos as theophany, it is necessary to recapitulate the main points of criticism made of modern science by the traditional authorities and from the traditional point of view. The first point to assert in order to remove all possible misunderstanding is that the traditional criticism against modern science are not based on sentiments, fanaticism, illogicality, or any of the other terms with which anyone who criticizes modern science is usually associated. The traditional critique is based on intellectual criteria in the light of the metaphysical truth which alone can claim to be knowledge of a complete and total nature.²³⁶ That is why traditional authors never deny the validity of what modern science has actually discovered provided it is taken for what it is. The knowledge of any order of reality is legitimate provided it remains bound to that order and within the limits set upon it by both its method and its subject matter. But this would in turn imply accepting another science or manner of knowing which, being of a more universal nature, would set the boundary within which that science could function legitimately.

Herein lies the first and foremost criticism of modern science. In declaring its independence of metaphysics or any other science, modern science has refused to accept the authority which would establish the boundary for its legitimate activity. That is why despite all the pious platitudes and even well-intentioned and earnest pleading of honest scientists, modern science does transgress beyond the realm which is properly its own and serves as background for monstrous philosophical generalizations which, although not at all scientific but scientistic, feed upon the tenets and findings of the sciences and the fact that modern science has signed its declaration of independence from metaphysics. Moreover, by token of the same fact, the metaphysical significance of scientific discoveries remains totally neglected by the supposedly scientifically minded public

²³⁶ For traditional critiques of modern science see Guénon, "Sacred and Profane Science", *Crisis of the Modern World*, (Lahore: Suhail Academy, 2002); Schuon, *Language of the Self*, chap. 10; idem, *In the Tracks of Buddhism*, chap. 5; Lord Northbourne, *Religion in the Modern World*, London, 1963 rpt. (Lahore: Suhail Academy, 1998), esp. chap. 5; and F. Brunner, *Science et réalité*, Paris, 1954.

which usually knows very little about science but is mesmerized by it. And here again, despite the loud protests of some reputable scientists, instead of the metascientific significance of what science has actually discovered becoming revealed, the reverse process takes place whereby, through wild interpolations and usually well-hidden assumptions, metaphysical truths become rejected in the name of scientific knowledge. What tradition opposes in modern science is not that it knows so much about the social habits of ants or the spin of the electron but that it knows nothing of God while functioning in a world in which it alone is considered as science or objective knowledge.

This divorce of science from metaphysics is closely related to the reduction of the knowing subject to the cogito of Descartes. It is usually forgotten that despite all the changes in the field of modern physics, the subject which knows, whether the content of that knowledge be the pendulum studied by Galileo or wave functions of electrons described mathematically by de Broglie, is still that reason which was identified by Descartes with the individual human ego who utters cogito. The other modes of consciousness and manners of operation of the mind are never considered in modern science. The findings of that reason which is wed once again to the Intellect and that mind which is illuminated by the light of the "eye of the heart" is not considered as science at all, especially as this term is used in the English language. Hence, the irrevocable limitation of a science caught with in the mesh of the functioning of only a part of the human mind but dealing with a subject of vast import which it then seeks to solve in manners that are characteristically "unscientific," namely, intuition, artistic beauty, harmony, and the like. Many first-rate scientists, in contrast to most philosophers of science, would in fact accept our contention that, if one considers all that which is called science has achieved even in modern times, one cannot speak of the "scientific method" but has to accept the assertion that science is what scientists do, which might include playing with possibilities of musical harmony to solve certain physical problems.

Despite the reality of this assertion, however, the rationalism inherent in what the modern world considers to be science continues and had has its lethal effect upon the humanities, the social sciences, and even philosophy and theology. Strangely enough, precisely because of the inherent limitation of the original epistemological premises of modern science, more and more modern science has come to see in the objective world not what is there but what it has wanted to see, selecting what conforms to its methods and approaches and then presenting it as the knowledge of reality as such. Modern men, influenced by science, think that according to the scientific point of view one should only believe what one can see, whereas what has actually happened is that science has come to see what it believes according to its *a priori* assumptions concerning what there is to be seen.²³⁷ This epistemological limitation combined with the lack of general accessibility in the West since the rise of modern science to that scientia sacra of which we have spoken, has prevented this science from being integrated into higher orders of knowledge with tragic results for the human race. In fact, only a high degree of contemplative intelligence can enable man to look upon the sun and see at once the visible symbol of the Divine Intellect and an incandescent mass diffusing energy in all directions.

These limitations of modern science are to be seen also in its neglect of the higher states of being and its treatment of the physical world as if it were an independent order of reality. This neglect of the unmanifested and in fact non-physical aspects of reality has not only impoverished the vision of cosmic reality in a world dominated by scientism, but it has caused confusion between vertical and horizontal causes and brought about incredible caricatures of the cosmic reality as a result of relegating to the physical domain forces and causes which belong to higher orders of existence. It is not accidental that the more physics advances in its own domain, the more does it become aware of its need for another complete paradigm which

²³⁷ "Modern man was not—and is not—"intelligent" enough to offer intellectual resistance to such specious suggestions as are liable to follow from contact with facts which, though natural, normally lie beyond the range of common experiences; in order to combine, in one and the same consciousness, both the religious symbolism of the sky and the astronomical fact of the Milky Way, an intelligence is required that is more than just rational, and this brings us back to the crucial problem of intellection and, as a further consequence, to the problem of gnosis and esoterism... Howbeit the tragic dilemma of the modern mind results from the fact that the majority of men are not capable of grasping *a priori* the compatibility of the symbolic expressions of tradition with the material observations of science; these observation incite modern man to want to understand the 'why and where' of all things, but he wishes this 'wherefore' to remain as external and easy as scientific phenomena themselves, or in other words, he wants all the answers to be on the level of his own experiences: and as these are purely material ones, his consciousness closes itself in advance against all that might transcend them." Schoun, *Language of the Self*, p. 226-27.

would take into consideration domains of reality that many physicists feel almost intuitively to exist, but which have been case aside from the world intuitively to exist, but which have been cast aside from the world view of classical and modern physics.²³⁸

The neglect of the multiple levels of existence by the modern scientific perspective has forced the exponents of this science to take recourse to belief in the uniformity of "law of nature" over long periods of time and expanses of space. This theory which is called "uniformitarianism" and which underlies all those geological and paleontological speculations which speak of millions of years past was rapidly promoted from the status of hypothesis to that of "scientific law"; and when most honest scientists are asked on what basis do they believe that the laws of nature, the so-called constants of the law of gravitation, the law of electromagnetic theory or quantum jumps have always been the same, they answer that since there is no other choice they have adopted the uniformitarian thesis. Actually from the modern scientific point of view itself there is of course no other way of speaking about what was going on in the planetary systems eons ago except by considering the laws of physics to be uniform and simply admitting that this science cannot provide an answer to such questions without extrapolating cosmic and natural laws back into earlier periods of time or into the future. Of course it is not the physical conditions which modern science assumes to have been the same but the laws and forces which bring about different physical conditions at different times while supposedly remaining uniform themselves. As for as these laws and forces are concerned, whatever means are employed by modern science to check whether or not there were changes in such laws and forces in the past are themselves based on the condition of the uniformity of the laws and forces used to carry out the process of checking. A science aware of its limits would at least distinguish between what it means to say that the specific weight of aluminium is such and such or how many protons are found in the nucleus of a helium atom and to claim that such and such an astronomical event occurred 500 million years ago or a particular geological formation was formed so many millions or even billions of years ago. One wonders what exactly the word year means in such a

²³⁸ The attraction toward Oriental teachings about nature alluded to above is related to this same phenomenon. On the interest of contemporary physics in the traditional esoteric and mystical views of the universe see M. Talbot, *Mysticism and the New Physics*, New York, 1981.

statement and what assumptions are made upon the nature of reality to give the kind of definition of years which is usually given when a question such as this is posed to a scientist.

What is most unfortunate from the traditional point of view in this presumptuous extrapolation of physical laws to include long stretches of time, and in fact all time as such, is that it results in the total neglect and even negation of cosmic cycle. The denial of the traditional doctrine of cycles or even one cycle which ends with the majestic and tremendous events described in all sacred scriptures and associated with eschatology is one of the greatest shortcomings of modern science because it has made eschatology to appear as unreal. It has helped destroy in the name of scientific logic, but in reality as a result of a presumptuous extrapolation based on metaphysical ignorance, the reality of that vision of ultimate ends which gives significance to human life and which over the ages has had the most profound effect upon the behaviour of man as an ethical being. It has also destroyed in the minds of those affected by scientism the grandeur of creation and the meaning of the sacrifice of primordial man. That is why this science has been so impervious to the amazing harmony that pervades the heavens and the earth. Where does this harmony come from? This question, which is metaphysical but which has profound scientific consequences, has been left unanswered as a result of the hypothesis of uniformitarianism which is metaphysically absurd but which passes as scientific law as a result of the loss of vision of the hierarchic universe and understanding of cosmic rhythms.

Also, closely related to this loss of the awareness of the vertical dimension of existence, is the reductionism so characteristic of modern science which we have had occasion to mention already in conjunction with the process of the desacralization of knowledge. From the point of view of *scientia sacra*, this reductionism is the inversion of the traditional doctrine according to which each higher state of existence "contains" the lower, the Principle containing the root of all that is real in all realms of metacosmic and cosmic existence. In this reversal of the normal rapport between grades of being, the Spirit is reduced to the psyche, the psyche to biological form, living forms to aggregates of material components, etc. Of course one cannot lay the responsibility for all the levels of this reductionism at the feet of physics; but even on the nonmaterial levels, the effect of a purely

phenomenal science wed to the sensually verifiable is to be observed, as, for example, the reduction of the Spirit to the psyche so characteristic of the modern world and concern with proofs of the existence of not only the psychic but also the spiritual through various experiments which indirectly emulate the physical sciences.²³⁹

That is why there is and there must be another science of nature which is not metaphysics or *scientia* sacra itself but its application to the realm of nature. Such a science would not exclude what is positive a modern science but would not be bound by its limitations.²⁴⁰ It could not veil but reveal the theophanic character of the cosmos and that the knowledge of the sensible domain to higher levels of reality and finally to Reality as such. It would be a science whose matrix would be the Intellect and not the dissected ratio associated with the Cartesian cogito. Such a science existed already in traditional civilizations and embraced their sciences of the sensible order which in many cases were of considerable breadth and depth. Its principles are still to be found in scientia sacra from which could be created a science to embrace and integrate the sciences of nature of today once they are shorn of the rationalistic and reductionist propositions, which do not have to be their background, but which have accompanied them since their birth during the Scientific Revolution. Only such an embrace can nullify the disruptive and, in fact, dissolving effect of a partial knowledge which parades as total knowledge or is paraded by others as such. Those "other" include not only scientistic philosophers but many philosophers and historians of science infected by a dogmatic positivism²⁴¹ and a number of modern mystifiers and

²³⁹ It is the allure of empiricism which draws so many people to various kinds of spiritualism, magnetism, occultism, etc., where the supernatural is "proven" through phenomenal evidence. Although certain experiments in parapsychology have certainly demonstrated that here is more to reality than meets the eye and that the so-called scientific world view of a limited material-energy complex as the ultimate ground of all that constitutes reality cannot be sustained, no phenomenal evidence can prove the reality of the Spirit which lies beyond all phenomena and belongs to the realm of the noumena.

²⁴⁰ "C'est pourquoi it faut qu'il exise une autre science que la science moderne. Cet autre type de connaissance du monde n'exclut pas la science sous sa forme actuaelle, si l'on envisage la perfection pour qui sous-tend et justifie dans une certaine mesure la pensée technique ellemême: la science veritable laisse subsister la science moderne comme une manifestation possible de l'esprit en nous." Brunner, *op. cit.*, p. 208-9.

²⁴¹ It is important to note that the founders of the discipline of the history of science, who were all either outstanding historians of thought or philosophers of science, were, with the

pseudognostics who, instead of integrating science into the gnostic vision, have mutilated the verities of gnosis into a pseudoscientific science fiction which is no more than another way of generalizing the partial knowledge represented by modern science into total knowledge, but with esoteric pretensions.²⁴² This other science which is traditional in the most profound sense of implying a transmission in conformity with the destiny of the person who is able to possess such a knowledge²⁴³ cannot but manifest itself when *scientia sacra* becomes a reality once again, because it is none other than the application of this supreme form of knowledge to the cosmic realm.

The spiritual man, whose mind is sanctified by the Intellect and whose outward eyes have gained a new light issuing from the eye of the heart, does not even see himself in such a dichotomy. He is always on nature's side for

exception of the much neglected P. Duhem, positivists. As a result, an invisible positivist air still dominates the mind of the scholars of this discipline despite several important exceptions such as A. Koyré, G. Di Santillana and, among the younger generation, N. Siven and A. Debus. What is of special interest is that this positivism becomes rather aggressive when the question of the Oriental sciences and their metaphysical significance comes to the fore. That is why so few studies of the Oriental sciences which would reveal their significance as being anything more than quaint errors on the path of human progress have come out of those dominated by the tacit positivism of this discipline, no matter how learned they might be. S. Jaki in his *The Road of Science and the Ways to God*, Chicago, 1978, has referred to this positivism in connection with its neglect o the role of Christian elements such as a Creator whose will rules over an orderly universe. Although we do not agree with his appreciation of Western science as a positive result of the particular characteristics of Christianity, we certainly share his concern for the limitations imposed upon the discipline of the history of science by the positivism of its founders.

²⁴² The work by R. Ruyer, *La Gnose de Princeton: des savants à la recherché d'une religion*, Paris, 1974, supposedly by the group of scientists at Princeton interested in gnosis but most likely the thoughts of one person using a fictitious group, is an example of this kind of phenomenon. The thirst for sacred knowledge in the contemporary world is such that this work became popular in France where, during recent years, many pseudognostics and pseudo esoteric works by scientists have seen the light of day.

²⁴³ Traditions emphasize that this knowledge, although attainable, is not attainable by everyone because not does preparation but can be taught only to the person who possesses the capability and nature to "inherit" such a knowledge. That is why some of the Muslim authorities like Sayyid Haydar Amuli refer to it as inherited knowledge (*al-'ilm al-mawruthi*) which they contrast with acquired knowledge (*al-'ilm al-iktisabi*). See Corbin, "Science traditionnelle et renaissance spirituelle," *Cahier de l'Université Saint Jean de Jérusalem* 1 (1974): 39ff.

he sees in her the grand theophany which externalizes all that he inwardly. He sees in the forms of nature the signatures of the celestial archetypes and in her movements and rhythms the exposition of a metaphysics of the highest order. To such a person nature is at once an aid to spiritual union, for man needs the world in order to transcend it, and a support for the presence of that very reality which lies at once beyond and within her forms created by the hands of the Supreme Artisan. To contemplate the cosmos as theophany is to realize that all manifestation from the One is return to the One, that all separation is union, that all otherness is sameness, that all plenitude is the Void. It is to see God everywhere.
