

## THE UNIVERSE AS METALOGICAL AND NON-HUMAN

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UP to the end of the 18th Century the main concern of physical science was with matter, the properties of matter and material objects; the 19th Century discovered that energy had a hand in the makeup and disposition of all things material; and now the 20th Century is adding new light to the whole range of material analysis, even taking away the very foundation conceptions of mass, motion, weight, buoyancy, solidity, etc. and translating these properties into terms of electrical and radiological analysis. Einstein has disrupted the whole field of physics by advancing hypotheses that gravitation is a space relation rather than a property of matter, that light waves are independent of the ethereal flow, and that motion and duration are both relative in a universe where both space and time are curved. Nowadays inertia is considered as potent a factor as energy, immaterial constituencies are as important as material groupings, and the universe is seen to be self-perpetuating as a whole even tho undeniably dissipating and recrudescing in some particular (and more or less "ponderable") features. Energy in the form of motion is not nearly so problematic and incorrigible as energy in the form of inertia, such for example as the inertia of gyratory motion, the inertia of atomic structure and electronic poise, or the relative inertia of radium and radioactive emanations. Inertia is what gives any material body a center of gravity; it is the name we give to the locus of balanced forces, the perfect instance of inertia being a perfect vacuum because it would be a perfect balance between the forces of compression on the outside and of repression or resistance on the inside.

Among the chief concerns of philosophy too we find that transcendentalism had been precocious ever since the naive scholastic

speculations of Anselm and Aquinas dispossessed the nominalists of their assumptive treasures. But it actually came to the anticlimax of its ambitious overreach at the end of the 18th Century when Kant attempted to prescribe *Prolegomena to Any Future Metaphysic* by rehashing the old rationale of universals into a new schematism under the twelve categories of all possible human judgment. The main transcendental assumptions of priority and identity still remain unproven; we still wonder whether synthetic a priori judgments are grounds or subsequents to the categories of thought, and whether there is actual identity or only practical similarity between ideas and objects. We feel quite sure that the general peirastic stream is somehow transcended in epistemology and metaphysical logic, but how and in what degree of accuracy and authority we do not yet understand. It is as yet even problematical just what precise virtue there is in the modern reduction of philosophy to terms of linguistic permutation and logical resynthesis under new abstracts of title. We have, however, a vague but insistent notion that if the whole universe of diction is no more rational than a mere universe of arbitrary novelty (and which therefore borders on that of mere fiction) then the categories of thought as well as the postulates of dative experience are not as aristocratic and necessitarian as we first supposed, but as mere linguistic developments or accessories are hardly any less groundless and unphilosophable than the jabberwocky of a bizarre rhetorical flourish.

Scientific logic is an illusion of our own categorical vision and thought process if the universe of reality and fact cannot be amply (which for philosophy means wholly) syllogized and all its functions represented in symbolic procedure. But can it be syllogized and forced to respond to our insistent deductions? This is no modern problem because seventeen centuries ago Sextus Empiricus held that it cannot and that no amount of intensive reasoning on our part will reveal truths not already given in experience, whence if reality is not revealed thereby then logic cannot advance and enlarge but can only analyze and regulate the knowledge and thinking process we already possess. It is a modern problem tho when we ask why a full and philosophical linguistic has to make room for all universes of interest, diction, fiction and fact so far as they can be symbolically represented, and must not make exclusive selection as to ad-

missability of evidence on grounds merely of rational approach or categorical invitation.

Radical and revolutionary hypotheses are in order today and we can only consider all announced programs as merely tentative and provisional until such time as they gradually eliminate each other, or at least adjust themselves to what may some day prove really intelligible and acceptable to a cosmic philosophy. The whole category of expression is only one of the innumerable functions of reality, and if we assume that the functions of reality are essentially emergent and melioristic then we would also have to subsume that our own functions of experience and thought (linguistic, ethic and art) are similarly progressive and engaged in the intrinsic struggle for wider scope and efficiency of expression. The whole upshot being that in an era of existence so palpably imperfect and yet equally determined on development and meliorism, the genetic urgency and developmental transition should themselves be among the chief factors qualifying whatever philosophy we might devise, whether it emerged from below as a gradually expanding linguistic of analytic and synthetic expression or from above as a gradual metamorphosis out of the metalogical realm of transfinite categorical contingency.

Evolutionary theory fairly well covers the first aspect of our philosophical derivation, but as yet we have no very thoro advice on whether the second aspect does not also have some element of truth in it. It is at least significant to the situation that we are asking what implications of philosophical validity, as distinguished from logical validity, may be predicated of the transfinite, and whether subsumptions under the postulate of a categorical absolute are too finite and dependent upon human intellectual patterns to carry philosophically competent judgments about reality. We learned from Aristotle that the categories themselves fit our habits of thought peculiarly well even tho we do seek objectivity for them by making them batten on the hypothesis of the universality of natural law. But if all readings of natural law are functions of relation-value rather than of factual existence we are at full logical liberty to assume also that the categories are not integers of judgment but may in turn be disintegrated, analyzed, redistributed and reconstituted in all the interchangeable terms of each other. And not only this, but such contingency and superordination might be

listed as a new category by which we could determine new worlds of thought and issues of thought.

In this new field the Kantian categories of quantity, quality, modality and relation could each be so juggled (if not materially, at least verbally) into interchangeable positions, and even the so-called exclusiveness of sub-categorical declension would become a broken barrier because all artificial disjunction would be put aside as being irrepliable of any real situation in reality. Briefly, according to a transfinite logistic nothing is strictly categorical in the accepted rational sense because all distinctions arising from time-and-space postulates of the extensive and intensive, the potential and actual, the substantial and attributive, the causal and effectual, would vanish or at least be reduced to mere "formal unities" peculiar to our own intellectual pattern of rational integrity. What we call categorical necessity arises from the acceptance of this human integrity which is both empirical in source and rational in expression, but whenever we allow the metalogical possibility that the categories may be functionally contingent among themselves even tho we do assume metaphysically that natural law is universal, we are then in a position to transcend the whole categorical viewpoint were it only sufficiently stable and secure for the moment that we postulated a new category of the super-categorical order. Such speculations as this involve large interest in whether reality is nomological in absolute fact as well as relative value, and we will perhaps never become impersonal-minded or philosophically competent enough to solve the question whether the apparent antinomy between category and contingency is a real anomaly of human thought or merely a verbal conflict caused by assuming that the full exercise of philosophy is transfinite.

The human mind is finite and hence can only take hold of reality piecemeal, divisively; and in the fragmentary metaphysical consciousness no full insight into or report of the total nature of absolute reality can be made. But if we discard the phenomenology and automorphism peculiar to the finite mind and consider reality in the light of the few fundamental properties we know that it possesses independently of our own individual viewpoint, we can assay some measure of accuracy and success in analyzing and understanding its general nature and significance. The finite and ephemeral mode or phase cannot cover or reach all parts of the infinite and eternal, nor can the scope of function or skill open to the one cover all the

degrees or differentia possible in the other. This does not exactly bolster the negative epistemology indicated in the part-and-whole argument of agnosticism, but it does keep our philosophies humble and our ethics conservative because it reminds us that any part of reality has to be similarly harmonious, coherent, spontaneous and melioristic with the whole, whence whatever a finite mind might read in a single isolated fragment (as any particular empirical moment might give) would be limited, divisive or differentiated only in appearance and not in any substantial relation or essential reference to reality. We do not even know for sure that our own experience *is* fragmentary *or* confluent. We only seize certain moments here and there and arbitrarily give them representative power and denotative importance. If reality is supra-relational then it is not a predicable but an absolute, and any fragmentariness as of parts or relations are only appearances in the phantasmagoria of finite minds. No amount of logical transmutation or metaphysical supplementation will enable a figment of the finite mind to take on the dignity or enjoy the non-human prerogatives of what is already an eternal and complete whole.

These latter items should have a more appropriate treatment in a theory of magnitude which mathematicians consider dual in nature. It may be continuous as in fluxions or geometrical calculations, or it may be discrete as in the differential calculus or arithmetical analysis, but it is nowadays a shrewd mathematician who knows his own magnitudes, whether they are continuous, transfinite, functional or infinitesimal. The analysis of intensive magnitudes is more fertile and significant to philosophy than the analysis of extensive magnitudes because whole universes of discourse and predication are opened up by turning our inquisitive apparatus into an instrument of self-examination and logistic control. It is here that we find many positive reminders that reality includes many phases of characteristic order not determinable under logic or diction, but merely indicated as residual margins adjoining but not covered by our present philosophical categories. They exist in the universe of interest long before they can ever be proven to actually exist in the universe of fact.

Whereas the extensive quantity is either continuous or discrete in temporal or spacial relation of part to part, part to whole, or whole to whole, an intensive quantity (quality, to be more exact)

is either continuous or discrete in functional or modal relation because whenever we begin to syllogize the universe into quantified relations or predications we also begin breaking it up into such particular phases and types of order as will fit our conscious mental moods. These moods in turn may be classifiable into the four principal avenues of interest or thought, viz: objective extension, subjective intension, substantive being (or factual existence), and predicative relation (even the logical categories become merely so many predicative relations between thoughts and things in the universe of metaphysical and metalogical interest). Each of these intellectual avenues may be further quantified as being continuous or discrete and qualified as being empirical or rational, realistic or idealistic, substantial or adjectival, naturalistic or religio-spiritual; so that the full cycle of function would correspond to a system of serial inclusions rather than an actually discrete heterogeneity of clashing incompatibles. Values and concepts, principles and laws, origins and destinies, having both transitive and permanent (that is human and non-human) significance arise from having their bases in the strictly inclusive metalogical system rather than in the alogical, illogical, prelogical, paralogical or dyslogistic limbo of incoherence.

In distinction from our philosophy in the present situation our scientific achievement has taken tangible and somewhat firmer hold on what seems to us is the intelligibility of the Cosmos because it has been fortunate (or specialistic) enough to consider only the empirical aspect of reality. Science operates on the cognitive, not the conative or affective categories; it is not directly interested in the derivation or verification of metaphysical or moral ideas, although questions in these fields are among the chief problems of modern philosophy and behaviorism. But science, in the purer truer sense where it borders on the fields explored by philosophy, must still seek accuracy of information, validity of viewpoint and method, and consider only what is logically possible and consistently demonstrable. If we want to go farther than this we will be in the metalogical field of philosophy and can rest assured that our post-scientific propriety will not be offended even though we consider that possibly *all reality* is not intelligible in terms of the objective physical, the extensive existential phase; but that perhaps it has instead various modes of being or becoming, numerous cycles of

function and expression which are non-rational, supra-Nature-al, metempirical and hyper-categorical (truly transcendent conditions indeed, if actually substantial characters and not merely adjectival predications).

If the real Universe is non-moral owing to the moral realm being a peculiarly human category, then we cannot say that it is confined to moral purposes or arrangements, but that its ends are independent of qualification as to good and bad, worthy or delinquent, efficient or extravagant devices and procedure. Human nature then would be *only one* of the numerous types of nature which might variously experience and interpret the great spectacle of the real Universe; at least the one would be as philosophically unique and significant as the other even tho otherwise cast in wholly disproportionate powers and dimensions. Each of the members to the cosmic pluralism could therefore have their own consistent circle of existence (and perhaps their own peculiar sort of experience, science, philosophy, ethics and art) independently and entirely of a different order from that pursued by the human. This idea is not exactly agreeable with the general assumptions of human science, but it opens up grand vistas of thought and metaphysical speculation to the philosopher who casts his visionary interest toward the numerous overworlds beyond both human nature and human science.

#### THE IMPERSONALITY OF THE ETERNAL VALUES

Deliberations as to whether values spring from the affective, conative or cognitive activities assume that the whole valuistic process is personal. This is provisional only to a methodological selection, for a full philosophical report would have to give attention to those functions of value which are impersonal and of purely scientific interest as well as to those which are personal or ephemeral. Personality itself is a fact, not a value; and personal judgments of value by other people are really treated as so many objective facts to be considered in reaching a scientific judgment (or permanent value) for the whole situation. Time and space are impersonal conditions of human experience but their impersonality does not militate against their being actual facts to be reckoned with by each one of us in our individual lives. A hypothetical case of metaphysical value is presented by man's subjection to limitation

in reference to the duration and scope of his mental life; still it can be said that altho man may not *at present* be rationally able to *pass beyond* his limitations in the empirical field he certainly has the philosophical right to do so whenever he does acquire such ability.

Finite interests are behind all personal values; that is why both are so ephemeral and incompetent of further utility or pursuit. But cosmic "interests" (meaning purposes, destinies, laws) are behind the eternal values; that is why both are permanent and competent to last forever as universal conditions or functions of reality. Both these phases of value actually exist in the universe of interest, of which human life and thought is one of the (for us) chief factors. Thus, our readings of that value in *factual* experience may be personal or ephemeral in the attitude taken or purpose served, but could just as well (were we not bent on selfish satisfaction) be made impersonally for the more permanent sake of keeping faith with the laws of God and Cosmos or, what would be equally innocent tho not so directly decisive, to simply be contented as a disinterested spectator to the cosmic drama—such specimens of "pure mind" being indeed rare in this too personal life. The so-called facts of life are just these selfsame readings which we value because of their significance beyond the merely personal and ephemeral interests of our personal existence. We say that the full significance and value of our interests are as much in the native grain of reality as those aspects of it which function as objective facts in human life. The fact of the matter is that all judgment takes place in the universe of thought and interest which makes up the experience of these facts, and whereas all human life aspires to and culminates in practically exact and more or less theoretically true judgments, the philosophical understanding of what this full significance is must also consider its place and value as one of the functions or expressions of reality. It is an eternal quest perhaps, but it helps man to be functionally aspirant and keep his interests at least occasionally philosophical and impersonal.

Under a strictly pragmatic interpretation it would seem that values are neither impersonal nor eternal, that insofar as they are readings appropriate to special finite occasions, the situations they cover are discrete and ephemeral. But the case is only a particular one. The pragmatic viewpoint fails to see that the same or similar situations

are being forever repeated and that it is this continuity and integrity of a collective increment which make it possible for any special set of values to be intelligible and communicable at all. Judgments and distinctions of value are special and ephemeral to the purpose of the situation which gives rise to them, but not the values themselves, for there is a feature readable in rather than attachable to all real values which shows them to be constitutive as well as selective, categorical as well as adjectival. Philosophy, science, religion, ethics and aesthetics are all systems of valuation in their separate fields of interest, but who will attempt to argue that they serve only a particular or ephemeral situation? They are both descriptive and normative procedures aiming to inspire and discipline the human spirit, and as such will be as persistent and immortal as the very spirituelle which is at once their source and destiny.

The meliorism of man's spirit and the world he lives in by patterning his disciplines after the inexorable demands of cosmic evolution is vitally bound up with the fact that real values like laws, duties, ideals are impersonal and eternal, that no other situation in life, no other sort of existence could be considered different or better without first being analyzed and compared as to what field of value its major characters were heuristic of, and whether they shared in the general melioristic function which makes life real and decisively earnest. The present situation does not have to be perfect, but is only required to portend good tidings. It must indicate some positive purpose or inclination toward becoming resurgent and transfigured, else we lose interest in it and let it go about its perilous way alone. Permanence, integrity, continuity and intelligibility are the chief readings we make from reality, and these are themselves among the ultimate philosophical values to be cherished and codified into systems of cosmic conception and understanding. They are among the criteria which we use every day to determine what is true and what is false, what is eternal and what is ephemeral, what is real and what is chimerical in our ceaseless contact with experience.

If we understand evolution to be melioristic and progressive from one condition to another which is *intrinsically better*, we imply that it is also emergent and aspirant, that when anything evolves it

is a member of an order which is both ascendent and endogenous. The basic assumption is teleological, lending aid and giving sanction to whatever else of valuisim and eschatology we require to bolster the hypothesis. Qualitative differentia are compromised and reduced to mere variations of kind, degrees of value or opportunity. Schematic irreducibles are promiscuously taken in and given free tho vulgar shelter under the common roof of a universalist hospitality. We must take good care, however, that we do not slip into an extreme of equal fallacy with Hegel's viewpoint. We must remember that there is still some system required of our philosophy, that we must progress from the simple to the complex, from below upward as well as endogenously, and that whatever tokens of reality and truth we are able to grasp are still only parts or aspects whose full significance in the cosmic whole must be very carefully weighed if we would be sure of avoiding error on the side of either superlation or insufficiency.

We do not have to be pragmatists to agree that all conceptions of natural law are teleological in origin and validity. Apart from the ends laws serve, or which we assume that they serve, there is no handle for our mental grasp. While not exactly utilitarian or cast in mercenary mold, they are still purposive, regulative and incumbent upon our attention to either willingly obey or seek some sophist opportunity for evasion. We observe Nature's doings and evolutionary procedure, and out of our experience pick such connexions and homogeneities as seem to indicate the presence of laws in Nature's admirably accurate control of worlds and things. But the ascription of law, according to the humanist, is our own interpretation of the situation, not hers; it means that we have found just that much necessity and control in her conduct of universal affairs—a conclusion which, to anyone except a verbal eristic, amounts to the same thing. If the laws we read into the program of Nature are less in content than the facts they are supposed to regulate, it is because our own experience and scientific derivations are selective in attention and constitutive only of such aspects of reality as interest or concern us. This is the basis of our nomological proof that it is not Nature but human nature which is finite and auto-morphic.

Ordinary empirical valuisim is humanistic in the sense of being

personal rather than intrinsic ; it does not have the impersonal touch which characterizes scientific or philosophical valuiism. But in either case the valuistic process depends upon who appraises and what is appraised and whether their relation is harmonious or satisfactory. The range of value may fall in either positive or negative series according to whether this relation is agreeable or repulsive, satisfactory or disappointing, and the significance of the values derived may be either denotative of simple qualification or connotative of complex characteristics not immediately effectual. The full variation from zero in any direction may be as rich and extensive or as intensive and persistent as the personal interests, prejudices, affections and aversions of the valuer ; but the ratio is determinable whenever we know the factors entering into both sides of the situation, whether they be genuine or false, permanent or expedient, mercenary or devout. Particular or intrinsic value implies habitual and homogeneous factors of approach and desirability, but when any system of particular or intrinsic values have become established and serve as a norm in the regulation of future value-judgment then the whole series becomes categorical and impersonal, and can then serve as constitutive rather than as instrumental issues under cultural interpretation. This manner of acquiring objective validity for a system of values is permissible and constructive in other metaphysical fields also, such as when aesthetic becomes idealistic, when science becomes philosophical, when sociology is interpreted on melioristic grounds, or when religious eschatology is justified as the idealism of an aspirant spirituelle rather than as a jural submission or themistic retribution.

The difference between logical validity and factual validity arises from the difference between the subjective and the objective worlds. The common practice, when not being able to objectify our own minds as parts of the external world, is to subjectify and automorphose the world of experience, so that whole universes of interest, thought, diction and fiction are constructed out of materials wholly eisegized or at least hypostasized as having existence outside our minds. Reality and fact exercise but little function as authoritative patterns for our valuistic decisions in such cases. But they should, if we intend that our science and philosophy should be significant of any dignity and discretion at all. Real factual validity, if it means

anything at all, means that man's experience is not wholly egoistic, automorphic, rhyomistic nor autotelic, but partly replical and impersonal to the extent that things independent of his own intellectual process of understanding them are of such coherence and intrinsic order that they can be used as criteria of the things (his own ideas, wishes or inventions, for example) which do not enjoy such independence. The response of objective reality to man's manipulations might well be listed among the data of factual validity while the consistency shared therewith by the response of man's replical values to his institutions and cultural uses would be listed among the data of logical validity.

At no point, however, do we reach complete solution and interchange of the subjective and objective worlds. We only establish such contact and understanding as will not be too erratic for some practical degree of empirical and rational sufficiency. All man's causes are efficient and expedient to the vicissitudes of life, but the Universe can afford to display both first and final causes because *there* is where everything finds both source and destiny. The presentation and grasp of this basic fact is just the intention of every code of philosophical value, not that it go beyond itself in an ambitious warranty of certitude, but that it merely place some determinable measure on the skill and accuracy of man's mind, while at the same time placing some determinable limit on the margin of error which may always adjoin the context of every intellectual process which takes readings from reality. So long as the world does not exist as a uniform simple but as a complex and variable heterogeny, man's analyses and interpretations of it will always be of a various and inconstant manifold of viewpoints and attitudes. One of the first metaphysical facts to be recognized in the situation is that this variation and complexity is an actual external condition and that it is only by way of adaptation, caution, scrutiny and subtle philosophy that the human mind has thus far come to have any intelligent experience and communicable understanding of the external world at all. This is why it is so much easier to work out sciences having consistent schematisms of logical validity than it is to draw up even halfway inclusive philosophical syncretisms having replical superiority in factual validity. Some other scientist or philosopher with a different variety of knowledge and experience could in a few days

shoot holes in our little private hypothesis and show that it had been somewhat dependent upon personal limitations and affections after all. It is never safe therefore to confound the postulative with the constitutive, the nominal with the substantive, the predicate with the subject, the selective with the continuous, nor the ephemeral personal with the eternal real.

Facts are not values, they subsist apart from man's own universe of interest and thought and do not depend upon any item of his attention or concern. They are actually inherent conditions of reality and in this respect differ from values which are merely human readings and derivations from facts. Still, values themselves may be treated as among the external objects of the valuistic process because all judgment is a judgment of values, they being always intermediate between the facts and our understanding of what the facts mean. All the facts of human experience must be valued for content and significance before they can be judged to be consistent with and complementary to the world of fact already set up. The universe of reality and fact contains all the manifold of possible existence only one phase or order of which happens to be our own universe of experience, interest and thought.

We might say that if facts are the subjects of experience, values are the predicates and judgment is the conclusion or inference. This means that the inferential relation cannot be immediately applied to reality as it appears in factual contact with human life; it must await the opportunity, convenience and disposition of the empirical deliverance and appreciation of value-meanings. No one can justly or philosophically "jump at conclusions" from the ground of bare empirical presentation. No one can judge reality direct, but must always seek out first some special field of values from which to read significance and intention in what that special aspect of reality means. Reality may well enough be intrinsic and implicit on an absolute scale, but man's judgment of replical values is always directive, extrinsic, descriptive and explicit. The full significance of reality in its intensive aspect is metalogical and non-human, so that it is only by empirical selection, intellectual translation and logical reduction under categorical judgment that we get it into (for us) any intelligible form at all, and it either then *is*, or at least closely borders on, its factual and extensive aspect. In other words,

we seek contact and experience with whatever phases of reality are available and evaluate both process and data into terms of human function, interest or utility, and then proceed to pass judgments on how these new discoveries or value-findings *fit in with* the other systems of fact and value which have already been challenged and admitted to the select company of our science and philosophy. The special validity of any particular set of value-judgments is indigenous to the mind making them and compatible with the field of interest served. It is only by means of general projection, versatile contrast and inclusive anticipation (not altogether temporal or provincial in cultural reference) that we pass on to the larger fields of logical and moral validity. The validity which is factual or repical comes first in the empirical sequence and is immediate, theoretical, non-human while the validity which is logical and (or) moral, as also ethical, jural, religious or aesthetic by various derivation and application of purpose, is practical or pro-human.

It is quite possibly a form of the pathetic fallacy that we require philosophy to come to grips with the particular and personal. It is easier than standing by our strictly scientific guns and demanding that it verify and validate our concepts of the unity, continuity, spontaneity and general intelligibility of the Universe. We are giving ear to automorphic and decadent requests when we are urged to read textual philosophy as that subterfuge which makes the terms of experience intelligible and acceptable only thru a reductive process whereby they become less in content than the facts they represent. Values are selective simples and are not truly repical of the facts if the latter have been forcibly taken out of their native magma in the complex empirical stream and turned into humanized forms of what is agreeable, intelligible, liveable or useful to our private interests. It is just this automorphic personalism which is debauching our philosophic spirituelle, and our intellectual destiny will be a sorry mess if we do not bolster our idealistic morale with something more philosophical than such trifling sops to a moribund metaphysical affection. The maxim that man is the measure of all things loses somewhat of its smug sophistication when we remember that we never know much about man's real nature and destiny until we have measured him alongside the great Universe of all things, all realities, all the myriad universes of thought and dis-

course, fiction and fact. The ultimate philosophical question is whether man's capacity for experience and understanding is, or in any determinable period of his evolutionary process, can be made adequate to cover the whole field of reality and impersonal fact; or do his (apparently permanent) finitude and immaturity, if not his total ephemerality and insignificance, render him hopelessly impotent and incompetent to philosophize anything at all?