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## VI.—CRITICAL NOTICE

*The Phenomenon of Man.* By PIERRE TEILHARD DE CHARDIN. With an introduction by Sir Julian Huxley. Collins, London, 1959. 25s.

Everything does not happen continuously at any one moment in the universe. Neither does everything happen everywhere in it.

There are no summits without abysses.

When the end of the world is mentioned, the idea that leaps into our minds is always one of catastrophe.

Life was born and propagates itself on the earth as a solitary pulsation.

In the last analysis the best guarantee that a thing should happen is that it appears to us as vitally necessary.

THIS little bouquet of aphorisms, each one thought sufficiently important by its author to deserve a paragraph to itself, is taken from Père Teilhard's *The Phenomenon of Man*. It is a book widely held to be of the utmost profundity and significance; it created something like a sensation upon its publication a few years ago in France, and some reviewers hereabouts have called it the Book of the Year—one, the Book of the Century. Yet the greater part of it, I shall show, is nonsense, tricked out by a variety of tedious metaphysical conceits, and its author can be excused of dishonesty only on the grounds that before deceiving others he has taken great pains to deceive himself. *The Phenomenon of Man* cannot be read without a feeling of suffocation, a gasping and flailing around for sense. There is an argument in it, to be sure—a feeble argument, abominably expressed—and this I shall expound in due course; but consider first the style, because it is the style that creates the illusion of content, and which is in some part the cause as well as merely the symptom of Teilhard's alarming apocalyptic seizures.

*The Phenomenon of Man* stands square in the tradition of *Naturphilosophie*, a philosophical indoor pastime of German origin which does not seem even by accident (though there is a great deal of it) to have contributed anything of permanent value to the storehouse of human thought. French is not a language that lends itself naturally to the opaque and ponderous idiom of nature-philosophy, and Teilhard has accordingly resorted to the use of that tipsy, euphoric prose-poetry which is one of the more tiresome manifestations of the French spirit. It is of the nature of reproduction that progeny should outnumber parents, and of Mendelian heredity that the inborn endowments of the parents should be variously recombined and reassorted among their offspring, so enlarging the population's candidature for evolutionary change. Teilhard puts the matter thus: it is one of his more lucid passages, and Mr. Wall's translation, here as almost everywhere else, captures the spirit and sense of the original.

Reproduction doubles the mother cell. Thus, by a mechanism which is the inverse of chemical disintegration, it *multiplies without crumbling*. At the same time, however, it transforms what was only intended to be prolonged. Closed in on itself, the living element reaches more or less quickly a state of immobility. It becomes stuck and coagulated in its evolution. Then by the act of reproduction it regains the faculty for inner re-adjustment and consequently takes on a new appearance and direction. The process is one of pluralization in form as well as in number. The elemental ripple of life that emerges from each individual unit does not spread outwards in a monotonous circle formed of individual units exactly like itself. It is diffracted and becomes iridescent, with an indefinite scale of variegated tonalities. The living unit is a centre of irresistible multiplication, and *ipso facto* an equally irresistible focus of diversification.

In no sense other than an utterly trivial one is reproduction the inverse of chemical disintegration. It is a misunderstanding of genetics to suppose that reproduction is only "intended" to make facsimiles, for parasexual processes of genetical exchange are to be found in the simplest living things. There seems to be some confusion between the versatility of a population and the adaptability of an individual. But errors of fact or judgement of this kind are to be found throughout, and are not my immediate concern; notice instead the use of adjectives of excess (misuse, rather, for genetic diversity is not indefinite nor multiplication irresistible). Teilhard is for ever shouting at us: things or affairs are, in alphabetical order, astounding, colossal, endless, enormous, fantastic, giddy, hyper-, immense, implacable, indefinite, inexhaustible, inextricable, infinite, infinitesimal, innumerable, irresistible, measureless, mega-, monstrous, mysterious, prodigious, relentless, super-, ultra-, unbelievable, unbridled, or unparallelled. When something is described as merely *huge* we feel let down. After this softening-up process we are ready to take delivery of the neologisms: biota, noosphere, hominization, complexification. There is much else in the literary idiom of nature-philosophy: *nothing-buttery*, for example, always part of the minor symptomatology of the bogus. "Love in all its subtleties is nothing more, and nothing less, than the more or less direct trace marked on the heart of the element by the psychical convergence of the universe upon itself." "Man discovers that he is *nothing else than evolution become conscious of itself*", and evolution is "nothing else than the continual growth of . . . 'psychic' or 'radial' energy". Again, "the Christogenesis of St. Paul and St. John is nothing else and nothing less than the extension . . . of that noogenesis in which cosmogenesis . . . culminates." It would have been a great disappointment to me if Vibration did not somewhere make itself felt, for all scientific mystics either vibrate in person or find themselves resonant with cosmic vibrations; but I am happy to say that on page 266 Teilhard will be found to do so.

These are trivialities, revealing though they are, and perhaps I make too much of them. The evolutionary origins of consciousness

are indeed distant and obscure, and perhaps so trite a thought does need this kind of dressing to make it palatable : “ refracted rearwards along the course of evolution, consciousness displays itself qualitatively as a spectrum of shifting hints whose lower terms are lost in the night.” (The roman type is mine.) What is much more serious is the fact that Teilhard habitually and systematically cheats with words. His work, he has assured us, is to be read, not as a metaphysical system, but “ purely and simply as a scientific treatise ” executed with “ remorseless ” or “ inescapable ” logic ; yet he uses in metaphor words like energy, tension, force, impetus, and dimension *as if* they retained the weight and thrust of their special scientific usages. Consciousness, for example, is a matter upon which Teilhard has been said to have illuminating views. For the most part consciousness is treated as a manifestation of energy, though this does not help us very much because the word ‘ energy ’ is itself debauched ; but elsewhere we learn that consciousness is a dimension, something with mass, something corpuscular and particulate which can exist in various degrees of concentration, being sometimes infinitely diffuse. In his lay capacity Teilhard, a naturalist, practised a comparatively humble and unexacting kind of science, but he must have known better than to play such tricks as these. On page 60 we read : “ The simplest form of protoplasm is already a substance of unheard-of complexity. This complexity increases in geometrical progression as we pass from the protozoon higher and higher up the scale of the metazoa. And so it is for the whole of the remainder always and everywhere.” Later we are told that the “ *nascent* cellular world shows itself to be already infinitely complex ”. This seems to leave little room for improvement. In any event complexity (a subject on which Teilhard has a great deal to say) is not measureable in those scalar quantities to which the concept of a geometrical progression applies.

In spite of all the obstacles that Teilhard perhaps wisely puts in our way, it is possible to discern a train of thought in *The Phenomenon of Man*. It is founded upon the belief that the fundamental process or motion in the entire universe is *evolution*, and evolution is “ a general condition to which all theories, all hypotheses, all systems must bow . . . a light illuminating all facts, a curve that all lines must follow ”. This being so, it follows that “ nothing could ever burst forth as final across the different thresholds successively traversed by evolution . . . which has not already existed in an obscure and primordial way ” (again my romans). Nothing is wholly new : there is always some primordium or anlage or rudiment or archetype of whatever exists or has existed. Love, for example—“ that is to say, the affinity of being with being ”—is to be found in some form throughout the organic world, and even at a “ prodigiously rudimentary level ”, for if there were no such affinity between atoms when they unite into molecules it would be “ physically impossible for love to appear higher up, with us, in ‘ hominized ’ form ”. But above all consciousness is not new, for this would contradict the evolutionary

axiom ; on the contrary, we are “logically forced to assume the existence in rudimentary form . . . of some sort of psyche in every corpuscle”, even in molecules ; “by the very fact of the individualization of our planet, a certain mass of elementary consciousness was originally emprisoned in the matter of earth”.

What form does this elementary consciousness take? Scientists have not been able to spot it, for they are shallow superficial fellows, unable to see into the inwardness of things—“up to now, has science ever troubled to look at the world other than from *without?*” Consciousness is an interiority of matter, an “inner face that everywhere duplicates the ‘material’ external face, which alone is commonly considered by science”. To grasp the nature of the within of things we must understand that energy is of two kinds: the ‘tangential’, which is energy as scientists use that word, and a radial energy (a term used interchangeably with spiritual or psychic energy) of which consciousness is treated sometimes as the equivalent, sometimes as the manifestation, and sometimes as the consequence (there is no knowing what Teilhard intends). Radial energy appears to be a measure of, or that which conduces towards, complexity or degree or arrangement ; thus “spiritual energy, by its very nature, increases in ‘radial’ value . . . in step with the increasing chemical complexity of the elements of which it represents the inner lining”. It confers *centricity*, and “the increase of the synthetic state of matter involves . . . an increase of consciousness”.

We are now therefore in a position to understand what evolution is (is nothing but). Evolution is “the continual growth of . . . ‘psychic’ or ‘radial’ energy, in the course of duration, beneath and within the mechanical energy I called ‘tangential’”; evolution, then, is “an ascent towards consciousness”. It follows that evolution must have a “precise *orientation* and a privileged *axis*” at the topmost pole of which lies Man, born “a direct lineal descendant from a total effort of life”.

Let us fill in the intermediate stages. Teilhard, with a penetrating insight that Sir Julian Huxley singles out for special praise, discerns that consciousness in the everyday sense is somehow associated with the possession of nervous systems and brains (“we have every reason to think that in animals too a certain inwardness exists, approximately proportional to the development of their brains”). The direction of evolution must therefore be towards cerebralization, *i.e.* towards becoming brainier. “Among the infinite modalities in which the complication of life is dispersed”, he tells us, “the differentiation of nervous tissue stands out . . . as a significant transformation. *It provides a direction* ; and by its consequences *it proves that evolution has a direction.*” All else is equivocal and insignificant ; in the process of becoming brainier we find “the very essence of complexity, of essential metamorphosis”. And if we study the evolution of living things, organic evolution, we shall find that in every one of its lines, except only in those in which it does not occur, evolution is an evolution towards increasing complexity of the nervous

system and cerebralization. Plants don't count, to be sure (because "in the vegetable kingdom we are unable to follow along a nervous system the evolution of a psychism obviously remaining diffuse") and the contemplation of insects provokes a certain shuffling of the feet (p. 153); but primates are "a phylum of *pure and direct cerebralization*" and among them "evolution went straight to work on the brain, neglecting everything else". Here is Teilhard's description of noogenesis, the birth of higher consciousness among the primates, and of the noosphere in which that higher consciousness is deployed :

By the end of the Tertiary era, the psychical temperature in the cellular world had been rising for more than 500 million years. . . . When the anthropoid, so to speak, had been brought 'mentally' to boiling point some further calories were added. . . . No more was needed for the whole inner equilibrium to be upset. . . . By a tiny 'tangential' increase, the 'radial' was turned back on itself and so to speak took an infinite leap forward. Outwardly, almost nothing in the organs had changed. But in depth, a great revolution had taken place : consciousness was now leaping and boiling in a space of super-sensory relationships and representations. . . .

The analogy, it should be explained, is with the vaporization of water when it is brought to boiling point, and the image of hot vapour remains when all else is forgotten.

I do not propose to criticize the fatuous argument I have just outlined; here, to expound is to expose. What Teilhard seems to be trying to say is that evolution is often (he says always) accompanied by an increase of orderliness or internal coherence or degree of integration. In what sense is the fertilized egg that develops into an adult human being 'higher' than, say, a bacterial cell? In the sense that it contains richer and more complicated genetical instructions for the execution of those processes that together constitute development. Thus Teilhard's radial, spiritual or psychic energy may be equated to 'information' or 'information content' in the sense that has been made reasonably precise by modern communications engineers. To equate it to consciousness, or to regard degree of consciousness as a measure of information content, is one of the silly little metaphysical conceits I mentioned in an earlier paragraph. Teilhard's belief, enthusiastically shared by Sir Julian Huxley, that evolution flouts or foils the second law of thermodynamics is based on a confusion of thought; and the idea that evolution has a main track or privileged axis is unsupported by scientific evidence.

Teilhard is widely believed to have rejected the modern Mendelian-Darwinian theory of evolution or to have demonstrated its inadequacy. Certainly he imports a ghost, the entelechy or *élan vital* of an earlier terminology, into the Mendelian machine; but he seems to accept the idea that evolution is probationary and exploratory and mediated through a selective process, a "groping"; a "billionfold trial and error"; "far be it from me", he declares, "to deny its

importance". Unhappily Teilhard has no grasp of the real weakness of modern evolutionary theory, namely its lack of a complete theory of variation, of the origin of *candidature* for evolution. It is not enough to say that 'mutation' is ultimately the source of all genetical diversity, for that is merely to give the phenomenon a name: mutation is so defined. What we want, and are very slowly beginning to get, is a comprehensive theory of the forms in which new genetical information comes into being. It may, as I have hinted elsewhere, turn out to be of the nature of nucleic acids and the chromosomal apparatus that they tend spontaneously to proffer genetical variants—genetical solutions of the problem of remaining alive—which are more complex and more elaborate than the immediate occasion calls for; but to construe this 'complexification' as a manifestation of consciousness is a wilful abuse of words.

Teilhard's metaphysical argument begins where the scientific argument leaves off, and the gist of it is extremely simple. Inasmuch as evolution is the fundamental motion of the entire universe, an ascent along a privileged and necessary pathway towards consciousness, so it follows that our present consciousness must "culminate forwards in some sort of supreme consciousness". In expounding this thesis, Teilhard becomes more and more confused and excited and finally almost hysterical. The Supreme Consciousness, which apparently assimilates to itself all our personal consciousnesses, is, or is embodied in, "Omega" or the Omega-point; in Omega "the movement of synthesis culminates". Now Omega is "already in existence and operative at the very core of the thinking mass", so if we have our wits about us we should at this moment be able to detect Omega as "some excess of personal, extra-human energy", the more detailed contemplation of which will disclose the Great Presence. Although already in existence, Omega is added to progressively: "All round us, one by one, like a continual exhalation, 'souls' break away, carrying upwards their incommunicable load of consciousness", and so we end up with "a harmonized collectivity of consciousnesses equivalent to a sort of super-consciousness".

Teilhard devotes some little thought to the apparently insuperable problem of how to reconcile the persistence of individual consciousnesses with their assimilation to Omega. But the problem yields to the application of "remorseless logic". The individual particles of consciousness do not join up any old how, but only centre to centre, thanks to the mediation of Love; Omega, then, "in its ultimate principle, can only be a distinct Centre radiating at the core of a system of centres", and the final state of the world is one in which "unity coincides with a paroxysm of harmonized complexity". And so our hero escapes from his appalling predicament: with one bound, Jack was free.

Although elsewhere Teilhard has dared to write an equation so explicit as "Evolution = Rise of Consciousness" he does not go so far as to write "Omega = God"; but in the course of some obscure

pious rant he does tell us that God, like Omega, is a "Centre of centres", and in one place he refers to "God-Omega".

How have people come to be taken in by *The Phenomenon of Man*? We must not underestimate the size of the market for works of this kind, for philosophy-fiction. Just as compulsory primary education created a market catered for by cheap dailies and weeklies, so the spread of secondary and latterly of tertiary education has created a large population of people, often with well developed literary and scholarly tastes, who have been educated far beyond their capacity to undertake analytical thought. It is through their eyes that we must attempt to see the attractions of Teilhard, which I shall jot down in the order in which they come to mind.

1. *The Phenomenon of Man* is anti-scientific in temper (scientists are shown up as shallow folk skating about on the surface of things), and, as if that were not recommendation enough, it was written by a scientist, a fact which seems to give it particular authority and weight. Laymen firmly believe that scientists are one species of person. They are not to know that the different branches of science require very different aptitudes and degrees of skill for their prosecution. Teilhard practised an intellectually unexacting kind of science in which he achieved a moderate proficiency. He has no grasp of what makes a logical argument or of what makes for proof. He does not even preserve the common decencies of scientific writing, though his book is professedly a scientific treatise.

2. It is written in an all but totally unintelligible style, and this is construed as *prima facie* evidence of profundity. (At present this applies only to works of French authorship; in later Victorian and Edwardian times the same deference was thought due to Germans, with equally little reason.) It is because Teilhard has such wonderful *deep* thoughts that he's so difficult to follow—really it's beyond my poor brain but doesn't that just *show* how profound and important it must be?

3. It declares that Man is in a sorry state, the victim of a "fundamental anguish of being", a "malady of space-time", a sickness of "cosmic gravity". The Predicament of Man is all the rage now that people have sufficient leisure and are sufficiently well fed to contemplate it, and many a tidy little literary reputation has been built upon exploiting it; anybody nowadays who dared to suggest that the plight of man might not be wholly desperate would get a sharp rap over the knuckles in any literary weekly. Teilhard not only diagnoses in everyone the fashionable disease but propounds a remedy for it—yet a remedy so obscure and so remote from the possibility of application that it is not likely to deprive any practitioner of a living.

4. *The Phenomenon of Man* was introduced to the English-speaking world by Sir Julian Huxley, which seemed to give it a scientific benediction. Unlike myself, Sir Julian finds Teilhard in possession of a "rigorous sense of values", one who "always endeavoured to

think concretely". He was speculative; to be sure, but his speculation was "always disciplined by logic". The only common ground between us is that Huxley, too, finds Teilhard somewhat difficult to follow ("If I understood him aright", p. 16 and again p. 18; "here his thought is not fully clear to me", p. 19, etc.). But then it does not seem to me that Huxley expounds Teilhard's argument; his Introduction does little more than to call attention to parallels between Teilhard's thinking and his own. Chief among these is the cosmic significance attached to a suitably generalized conception of evolution—a conception so diluted or attenuated in the course of being generalized as to cover all events or phenomena that are not immobile in time (pp. 12, 13). In particular, Huxley applauds the, in my opinion, superficial and ill thought out view that the so-called 'psycho-social evolution' of mankind and the genetical evolution of living organisms generally are two episodes of a continuous integral process (though separated by a "critical point", whatever that may mean). Yet for all this Huxley finds it impossible to follow Teilhard "all the way in his gallant attempt to reconcile the supernatural elements in Christianity with the facts and implications of evolution". But, bless my soul, this reconciliation is just what Teilhard's book is *about*! And so, it seems to me, Huxley contrives to enrage all parties—those who have some concern for rigorous analytical thought, and those who see in Teilhard's work the elements of a profound spiritual revelation.

I have read and studied *The Phenomenon of Man* with real distress, even with despair. Instead of wringing our hands over the Human Predicament, we should attend to those parts of it which are wholly remediable, above all to the gullibility which makes it possible for people to be taken in by such a bag of tricks as this. If it were an innocent, passive gullibility it would be excusable; but all too clearly, alas, it is an active willingness to be deceived.

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