

The Philosophers Give All the Answers and Establish None

(1)

IT HAS been remarked earlier that the philosophers have given all three of the possible answers to the question about how man differs. They have done so either as a conclusion drawn from the evidence of common experience or as a corollary of some more general principle in an elaborate philosophical doctrine. Let us now look a little more closely at the positions they take in the controversy about man, and at the doctrinal settings in which these positions occur.

The position that man differs radically in kind is the one held by the majority of the great philosophers in the history of Western thought, from the beginning to the middle or end of the nineteenth century. They share this view in spite of their many differences on other points of doctrine. This may account for the fact that some of the philosophers who affirm man's radical difference in kind do so at the expense of being inconsistent with other views they hold.

The position that man differs only in degree is held by a smaller number of philosophers, but philosophers who are much more homogeneous in doctrine, for most of the members of this group are classical materialists, whether ancient or modern.

The third position—the position that man differs not only in degree but also superficially in kind—is held by a smaller and

even more homogeneous group: the Marxists or dialectical materialists. While the classical and the dialectical materialists part company on whether man differs in kind as well as in degree, they stand together in denying that man differs radically in kind. Their agreement on this point follows as a corollary of their commitment to the continuity of nature.

Before I comment on these three divergent philosophical positions, I would like briefly to consider, first, the relation of these philosophical views to common-sense opinion; and second, the bearing of scientific evidence on them.

1. *The relation of the three-sided issue to commonsense opinion.* The common-sense view of the difference of man, based on common experience, holds that man is not only superior to other living things, but that he differs from them in kind, not just in degree. The evidence that common experience provides in support of this opinion can be simply summarized. It consists of all the things that men do which, so far as our common experience goes, are done only by men and are not done in any way or to any degree by other animals. So far as common experience goes, only men make laws; only men make sentences; only men read, write, and make speeches; only men build and operate machines; only men paint pictures that have some representative meaning; only men engage in religious worship; only men cook their food; only men walk erect; and so on. If common experience includes any exceptions to these generalizations, they consist of the humanly trained performances of circus animals or domestic pets, and so do not seriously affect the commonsense view. But, working with such evidence, common sense is not subtle enough to distinguish between a superficial and a radical difference in kind; and so we can only say that common-sense opinion tends to reject the position that man differs only in degree.

Common sense grasps the distinction between person and thing as a distinction in kind, not degree. Acting in the light of common sense, men tend to treat human beings—at least some, if not all—as persons rather than things; conversely, they also tend to treat most animals as things rather than persons. The fact that common-sense opinion tends to reject the view that man differs only in degree does not mean that one or the other of the remaining views is nearer the truth of the matter. Since the question is not

a purely philosophical question, but is also susceptible to investigation, common sense can be wrong and open to correction by the special data obtained by scientific investigation. As I pointed out in *The Conditions of Philosophy*, philosophy is obligated to defend common-sense opinion only about such matters as are not capable of being investigated, and then only against adverse philosophical views. [1]

2. *The bearing of scientific evidence on the three-sided issue in philosophy.* We must note at once that when the question about man ceases to be treated as a purely philosophical question and becomes a mixed question involving science as well as philosophy, the fundamental structure of the issue is not altered. The three answers to the question—degree, superficial kind, and radical kind—exhaust the possibilities. Those same three answers exhaustively represent the positions actually taken in the history of Western philosophy. The intervention of science in the consideration of the question has not increased the number of answers, nor has it in any way affected the structure of their opposition. This is not to say, of course, that a new and distinct type of answer cannot be found. I am only saying that it has not yet been discovered, adding thereto the confession that I cannot imagine what shape it would take.

Though science has had no effect as yet on the structure of the issue (i.e., on the range and character of the alternative answers), it has contributed considerable evidence that weighs heavily against one of the three philosophical answers to the question. None of the scientific evidence that has so far been amassed favors the view that man differs radically in kind. Nor is it likely that any scientific evidence to be obtained in the future will tend *positively* to support that side of the issue; though, as we shall subsequently see, the lack of certain scientific evidence may, *at least negatively*, have that effect.

It is certainly the case that the present mass of scientific evidence accords with the doctrine of the continuity of nature, and therefore either with the view that man differs only in degree or only superficially in kind. Here, as we shall see later, the weight of scientific evidence now tends to support the latter view: that man differs in kind superficially as well as in degree. The fact that scientific evidence and authoritative scientific

opinion tend to support one position on the issue as against the other two is by no means yet a decisive indication of where the truth lies. Whether something more decisive will be forthcoming in the future remains to be seen.

With these preliminary observations made, let us turn now to a brief roll call of the philosophers, grouped by reference to the position they take in the three-sided controversy about man. In this inventory of eminent names, I have omitted reference to contemporary philosophers and to those scientists who vouchsafe to speak as philosophers on the question. Their voices enter the discussion more appropriately at a later stage since they, unlike the philosophers now to be considered, recognize that the question is a mixed one and that scientific evidence must be taken into account for all it is worth.

(2)

Philosophical exponents of the view that man differs radically in kind from other things. Holding this position are philosophers as diverse in their views as Plato, Aristotle, the Stoics (Marcus Aurelius and Epictetus), Augustine, Aquinas, Descartes, Spinoza, Pascal, Locke, Leibniz, Rousseau, Kant, and Hegel. [2]

With the one exception of Rousseau, for whom the difference between man and brute lies solely in man's free will, [3] all the others attribute man's difference to the fact that man alone among living things has the power of reason, intellect, thought, or understanding—manifested in the distinctively human activities of logical discourse, lawmaking, artistic production, scientific investigation, philosophical argument, the handling of general or abstract ideas, and so on. Along with Rousseau, many of the others—notably Aristotle, Augustine, Aquinas, Descartes, Pascal, Kant, and Hegel—ascribe free will or the power of free choice to man alone; and, except for Rousseau, they conceive that power as intimately related to man's rationality or intellectual power. Only Spinoza most emphatically denies this. [4]

Of the authors mentioned, some—notably Plato, Aristotle, Augustine, Aquinas, Locke, and Leibniz—picture the order of nature as a hierarchy involving at least four grades of perfection in being, involving three radical differences in kind: (1) between

non-living and living things, and, in the realm of living things, (2) between plant life and animal life, and (3) between animal life and human life. [5] Here Descartes is the major dissenting voice; for he conceives infrahuman living things—animals and plants—as nothing more than elaborate mechanisms or automata. [6] For him, nature does not consist of a hierarchy of kinds, but a bifurcation into thinking and non-thinking beings—men and everything else. It is worth noting that Locke, Leibniz, and Kant expressly disagree with Descartes on this point. [7]

With the exception of Plato, Leibniz, and perhaps also Spinoza, all the remaining philosophers who affirm man's radical difference in kind attribute man's power of thought and free choice to his *possession of a non-physical or immaterial principle* (call it rational soul, mind, intellect, spiritual power, thinking substance, or divine spark) *that is not present in other physical things, even those that are alive, sensitive, and conscious.* [8] (This becomes a pivotal point in the controversy. It explains why materialists of all varieties deny man's radical difference in kind; for to affirm it is to affirm an immaterial factor or principle.) For these philosophers—notably Aristotle, the Stoics, Augustine, Aquinas, Pascal, Descartes, Leibniz, and Hegel—there is something peculiarly divine about man that is not present in other things. Only the Christian philosophers, of course, speak of man as being created in God's image, but the others speak of the special kinship between man and God, the traces of divinity in man, the fellowship of man and God, and so forth. [9]

A number of other writers should be mentioned as expressing views about man that associate them with the philosophers who affirm man's radical difference in kind. They are Harvey the physiologist, Montesquieu the political theorist, and Adam Smith the economist. [10]

It is necessary to point out that some of the philosophers in this group also hold views that are inconsistent with their affirmation of man's radical difference in kind or with their assertion of a hierarchy of distinct gradations of being in the order of nature. Locke, because of his difficulty about real definitions and the distinction between real and nominal essences, refuses to define man as a rational animal, even though he has, in other passages, declared that men alone have the power of abstract and rational thought. [11] There are passages in both Locke and Rousseau in

which they maintain that men differ from the higher animals only in degree, even saying that some animals are superior to some men in intelligence. [12] Most important of all, both Leibniz and Locke become involved in self-contradiction by trying to reconcile a hierarchy of forms or kinds with the continuity of nature. The self-contradiction is compactly expressed in their reference to a continuum of forms or kinds. Understanding why this is a contradiction is of sufficient importance to justify a careful examination of the matter.

As I pointed out earlier, things that differ in degree differ continuously, whereas things that differ in kind differ discretely or discontinuously. If the difference in kind is radical, there is an underlying discontinuity as well. But even if the difference in kind is superficial and there is an underlying continuity, the observed or manifest difference in kind is a discontinuous difference. Hence it is self-contradictory to speak of an order or series of kinds as a continuum of forms, in which there are no gaps or breaks because between any two forms there are always intermediates.

Locke and Leibniz are the two most eminent figures in the group of seventeenth- and eighteenth-century writers who make this glaring mistake. Locke says that "in all the visible, corporeal world, we see no chasms or gaps." He pictures created nature, both corporeal and spiritual, as consisting of "numberless species in a continuous series or gradation." And he goes on to say that "the several species are linked together and differ but in almost insensible degrees." [13] Leibniz again and again asserts, as a necessary truth deducible from the principle of sufficient reason and the principle of plenitude, the law of continuity that nature does nothing by jumps, that nature abhors a vacuum of forms, and that all created forms, species, or kinds are linked together in a great chain of being, constituted by a continuous series of gradations from lowest to highest. [14] (To produce a necessary truth that is self-contradictory is quite a feat on Leibniz's part.)

If Locke and Leibniz and the others who subscribed to the great chain of being had denied the reality of kinds or species (as Locke almost does), their assertion of continuity in nature, constituted solely by differences in degree, would have been saved from self-contradiction. But, unfortunately, they insisted upon picturing the order of nature as a continuum of forms or kinds.

In the eighteenth century, Dr. Johnson and the French *philosophe* J. B. Robinet clearly pointed out the contradiction that is involved in saying *both* that distinct kinds exist in nature and *also* that they vary continuously from lowest to highest with no gaps or jumps. To resolve the contradiction and maintain the continuity of nature, Robinet came to the conclusion that nature consists of nothing but differences in degree. [15] Professor Lovejoy, whose large book on the great chain of being treats this idea, for hundreds of pages, as if it were to be taken seriously, finally concedes that a continuum of forms or kinds "is a contradiction in terms. Wherever, in a series, there appears . . . a different *kind* of thing, and not merely a different magnitude or degree of something common to the whole series, there is *eo ipso* a breach of continuity." [16] Differences in kind can, of course, be reconciled with the continuity of nature, but only by invoking the distinction between superficial and radical difference in kind—a distinction unknown to the writers we have been considering and also, apparently, to Professor Lovejoy.

(3)

Philosophical exponents of the view that man differs only in degree from other things. Here we have mainly philosophers whose fundamental doctrine is that of classical materialism.

The controlling principles of this doctrine are atomism and mechanism. As we shall see, when the Marxists try to distinguish their brand of dialectical materialism from this classical doctrine, they refer to it as "atomistic and mechanistic materialism." Associated with the classical materialists are a few others who, while not espousing their doctrine, concur in the view that man differs only in degree.

Among the atomistic or mechanistic materialists, those who speak most clearly and emphatically on the point at issue are Hobbes and La Mettrie. For Hobbes, man differs only in degree or, at most, only apparently in kind. He attributes understanding to men and brutes alike, and explains man's superiority in degree by reference to man's power of articulate speech, which is superior in degree to communication among animals. Brutes as well as men deliberate and exercise prudence, though men have more

foresight—again because of their linguistic superiority. [17] La Mettrie—whose book, *Man a Machine*, treats men as automata in the same way that Descartes treats animals—explicitly declares that men differ only in degree from other automata. [18]

The other outstanding materialists in the history of Western thought—Democritus and Epicurus in antiquity; Holbach, Hartley, Helvétius, Feuerbach, Moleschott, and Büchner in the eighteenth and nineteenth centuries—all regard man as a purely physical thing operating according to the same mechanical laws of bodily motion that control the behavior of other physical things. Insofar as they treat sensation and thought, they reduce it to the action of matter—to the impact of bodies upon bodies or to the physical properties of bodies in motion. By implication certainly, if not by express declaration, they treat man as differing only in degree from other physical things, animate and inanimate. For all of them the continuity of nature is a fundamental doctrine. They view nature as a single continuum of degrees of complexity in the material organization of bodies. Their denial of anything immaterial entails their rejection of the view that man differs radically in kind. [19]

Associated with them in rejecting radical difference in kind and in asserting that man differs only in degree are a number of other writers. Two who are certainly not doctrinal materialists—Montaigne and Hume—are quite explicit on the point. Hume maintains that men and animals differ only in the degree of their inferential power or their power to reason. [20] Montaigne, in his "Apology for Raimond de Sebonde," plays with the alternatives that men and animals do not differ at all in the traits usually thought to be distinctive of men; or that, if they do, animals are superior in intelligence to men. It must be added that Montaigne, in another essay, also says with blatant inconsistency that God endowed man with reason so that, unlike beasts, he is not servilely subject to the laws of nature. [21]

The others that remain to be mentioned but whom I reserve for fuller treatment in the next chapter—Bolingbroke, Jenyns, Bonnet, and Robinet—have intellectual affinities with the materialist philosophers, as Hume and Montaigne do not. They are all as explicit as Hume in declaring that men differ only in degree from other animals. They go further; they definitely espouse the

principle of a single continuum in nature, from the lowest to the highest degree, denying thereby the reality of kinds or species.

(4)

Philosophical exponents of the view that man differs superficially in kind from other things. Here we have the dialectical materialists—Marx, Engels, Lenin, and their followers—who reject the mechanistic materialism of the atomists, and of La Mettrie, Holbach, Büchner, and Moleschott. [22] With it they reject the proposition that man differs only in degree from other animals. They assert man's difference in kind, attributing to man alone the power of thought and the rational control of his environment through productive activity. [23]

As materialists, they affirm the continuity of nature, which they see as a single continuum of degrees of complexity in the organization of matter; and so as *materialists* they deny the existence of any immaterial principle that would make man radically different in kind. [24] But as *dialectical* materialists (and as followers of Hegel), they explain man's difference in kind by reference to the law of the transformation of quantity into quality or what they sometimes call the "law of leaping development." [25]

Since the operation of a critical threshold in a quantitative series or continuum of degrees is not confined to the production of a qualitative change, but extends to other respects in which things can differ in kind, the Hegelian formula—the law of the transformation of quantity into quality—while apparently apt, is on closer examination seen to be inadequate and inaccurate. As we have already observed, the explanation of a difference in kind by reference to a critical threshold in a continuum of degrees makes that difference in kind superficial, as distinct from radical. It is perfectly clear that the position of the dialectical materialists, divested of its Hegelian trappings and jargon, amounts to the assertion that man differs superficially in kind from other things. It is also perfectly clear that when they first adopted this position in the controversy about man, they did not have scientific evidence to support their view; they held it entirely as a matter of philosophical doctrine. It enabled them to maintain their con-

ception of man as different in kind by virtue of being the only historical and technologically productive animal, and it also permitted them to reconcile that conception of man with the principle of continuity in nature—a principle that no materialist, classical or dialectical, can relinquish.

(5)

I have already called attention to the basic error made by certain philosophers, who tried to conceive the order of nature as a continuum of kinds or species. Not only did Locke and Leibniz commit this error, but they also tried to combine their assertion of a single all-embracing continuum in nature with the contradictory assertion that nature consists in a hierarchy of radically distinct kinds—inert bodies, plants, brute animals, and man. If a single all-embracing continuum in nature is incompatible with a hierarchy of kinds, and if a continuum cannot be a continuum of kinds, but must consist solely of variations in degree, *what are the philosophically tenable alternatives?*

Aware of the contradictions just pointed out, Kant answered this question in the following manner. On the one hand, he regarded the tendency to find continuity in nature as one of the regulative principles of reason in man's effort to understand the world. This tendency led the mind to find sameness in things and to allow only for differences in degree. On the other hand, he regarded the tendency to distinguish things as different in kind as another regulative principle of reason, governing man's efforts to understand the order of nature. This tendency led the mind to find otherness in things and to introduce discontinuities into nature.

For the mind to operate in accordance with either one of these regulative principles to the exclusion of the other, would, in Kant's view, result in the error of a half-truth's being treated as if it were the whole story. But Kant also held that to apply both principles without limitation must result in a contradiction; for the order of nature cannot be both a single all-embracing continuum and a set of distinct kinds. Kant thought that we were saved from this antinomy only by the fact that we could not *empirically support* either principle applied without limit—to the exclusion

of the other. We must, in short, look for continuity in nature, on the one hand, and we must try to discover distinct kinds, on the other; but we must not suppose that either of these regulative principles can be converted into the one and only objective truth about nature. [26]

While I think that Kant's insight into the problem is in part correct, I do not think that his statement of the antinomy is correct, nor that we are obliged to accept his resolution of it. I would express what is correct about Kant's insight in the following manner. No universe, real or possible, is intelligible unless it contains some samenesses and some differences. For any two things that exist or any two objects of thought, it must be true that they are the same in one or more respects and that they differ in one or more respects. They cannot be utterly the same and be two; they cannot be utterly different and yet both be existences or thinkables. But it is quite possible for two things to be completely the same in kind, and yet still to differ, *if* they differ only in the degree to which they possess the same characteristics. And, as we have seen, it is also possible—a point not noticed by Kant—for two things to differ superficially in kind, while still being exactly alike in their underlying make-up or constitution.

Hence a single all-embracing continuum in nature need not exclude all differences. It allows for differences in degree and for superficial differences in kind. It excludes only radical differences in kind; for, if such exist, there is an underlying discontinuity in nature. Nor does a hierarchy of forms in nature (involving, as it does, radical differences in kind) totally exclude continuity.

This last point requires explanation, first, as to the meaning of "hierarchy," and second, on the relation of hierarchy to continuity. A hierarchy is a discontinuous and finite series of kinds, ordered in grades of perfection from lowest to highest—in which no two kinds are equal in grade, but each is higher or lower than another. For example, on the hypothesis that plants, brute animals, and men are radically different in kind, these three kinds constitute a hierarchy of living things.

If the order of nature—or the world of living things—is a hierarchy of kinds in the sense defined, then nature cannot also be conceived as a single all-embracing continuum. Continuity and hierarchy are incompatible when both are made co-extensive

throughout nature. This is the contradiction that we have already observed in Leibniz and Locke.

Aristotle avoids this contradiction by conceiving nature as a hierarchy of radically distinct kinds, but also seeing a continuum of degrees within each grade of the hierarchy; for example, lower and higher degrees of plant life; lower and higher degrees of brute animal life; lower and higher degrees of human life. In the *Metaphysics*, Aristotle says that the order of species is like the series of integral numbers (each one higher or lower than the next, with no intermediates). [27] This statement appears to be inconsistent with the following statement in the *History of Animals*: "Nature proceeds little by little from things lifeless to animal life in such a way that it is impossible to determine the exact line of demarcation, nor on which side thereof an intermediate form should lie." But if we read a little further in the same chapter, the meaning becomes clear: "There is observed in plants a continuous scale of ascent towards the animal. . . . And so throughout the entire animal scale there is a graduated differentiation in amount of vitality and in capacity for motion." [28]

To see how the hierarchy of nature envisaged in the *Metaphysics* can be reconciled with the continuity of nature as described in the *History of Animals*, we need only add to each whole number the discontinuous series of fractions that approach but never reach the whole number next above it. Thus, 1 plus the series of fractions approaches but does not ever reach 2; 2 plus the series of fractions approaches but does not reach 3. The basic discontinuity between 1 and 2 is not abrogated by the continuous series of fractions which almost but does not completely fill the gap between 1 and 2. In short, the principle of hierarchy excludes a single all-embracing continuum, but it allows for a plurality of continua that permit a lower kind to approach the next higher kind by a scale of degrees.

Continuity and hierarchy are incompatible only when both are made co-extensive throughout nature. This is the contradiction that we have already observed in the thinking of Locke and Leibniz. Aristotle and, following him, Aquinas avoid this contradiction by conceiving nature as a hierarchy of radically distinct kinds (inorganic beings, plants, brute animals, and men), and they fill in the picture by seeing a continuum of degrees *within* each of the grades of the hierarchy; for example, lower and higher

degrees of vegetative life, lower and higher degrees of animal life, lower and higher degrees of human life. [29] In contrast, Leibniz and Locke try to do the impossible. They try to combine the hierarchy of living things—vegetative, sensitive, and rational—with one complete continuum of degrees that leaves no gaps or breaks between the lowest and the highest. This amounts to combining the assertion of the unbroken continuity of nature with the assertion that in nature there are radical differences in kind. Since the latter introduces discontinuities into nature, the two assertions are in irreconcilable contradiction to each other.

(6)

I can now summarize my answer to the question that I asked at the opening of Section 5: *What are the philosophically tenable alternatives?* They are: (1) the principle of continuity understood as allowing for differences in degree and for superficial differences in kind, but excluding radical differences in kind; (2) the principle of hierarchy understood as asserting radical differences in kind and allowing for a plurality of partial continua within the sphere of each of the distinct kinds, but denying the existence of a single all-embracing continuum in nature.

These two principles are at first glance inconsistent. Both cannot be true. Where this analysis differs most fundamentally from the one advanced by Kant is in its assertion that, of the two alternatives, one can be true and the other can be false. Since I think it is clear that basic continuity and basic discontinuity in nature are not only exclusive but also exhaustive, I would go further and assert that these two principles are not merely inconsistent but contradictory—one must be true, and the other false.

This philosophical clarification of the issue about the order of nature controls the treatment of the question about man—not only as a purely philosophical question, but also as a mixed question. The introduction of scientific evidence bearing on that question does not and cannot alter the picture so far as the relevant principles are concerned, precisely because they are principles. Any determination of how man differs, whether in the light of common experience alone or in the light of all the scientific evidence that is now available or that ever will be available,

must be in accord with one or the other of the two opposed principles.

So much for the philosophical issue about continuity and discontinuity in nature. Now what about the question concerning man's difference, treated *as if* it raised a purely philosophical issue?

Here, at first blush, it would seem that the position that asserts man's radical difference in kind had the edge of the argument over the position of the classical materialists who assert that man differs only in degree. For two reasons: first, because the common experience of mankind falsifies the view that man differs only in degree from other things, or the view that, throughout the whole of nature, there are only differences in degree of material complexity; second, because the classical doctrine of atomistic or mechanistic materialism, quite apart from questions about the order of nature and about the difference of man, is also falsified by our common experience. To accept this doctrine, we must dismiss our common experience as illusory. If our common experience is not to be dismissed as illusory, we must reject the doctrine.

But, as we saw in Section 4, the dialectical materialism of the Marxists is able to affirm manifest differences in kind and also to maintain the principle of continuity in nature. It is able to do this by positing critical thresholds in an underlying continuum of degrees. These explain the manifest differences in kind and, in so doing, render them superficial rather than radical. Dialectical materialism's affirmation of the continuity of nature, is, therefore, not falsified by common experience, for it allows for the reality of all the differences in kind that we find in our common experience. In addition, not only dialectical materialism but also mechanistic materialism, as that has become more sophisticated and subtle in the twentieth century, regard themselves as able to maintain their doctrine without treating common experience as illusory in any respect.

These things being so, the affirmative position loses the advantage it appeared to have at first blush. The issue, treated *as if* it were purely philosophical, appears to be irresolvable; neither side can persuade the other by philosophical arguments alone. On the one hand, scientific evidence is needed to establish, as a matter of fact, the critical thresholds *posited* by the dialectical materialists, without which observed differences in kind cannot be reconciled with the underlying continuity of nature. On the other hand,

even if the position that men and other animals differ radically, not superficially, in kind, has additional philosophical arguments to support its view of man (I think it has such arguments, and I will deal with them in Chapter 12), these arguments cannot settle the matter without submitting to empirical tests—not just by reference to the facts of common experience, but also by reference to the special data obtained by scientific investigation.