

## INTELLECT: MIND OVER MATTER

**Mortimer Adler**

### CHAPTER SIX: EXTRATERRESTRIAL INTELLIGENCE

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Artificial intelligence machines are not the only twentieth-century innovation relevant to our discussion of the human mind and intellect. Another is the widely discussed hypothesis that a form of intelligent life will be found elsewhere in this cosmos besides earth.

It is interesting that those who favor this hypothesis claim that in our vast and ever-expanding universe, a form of intelligent life will be found not just on a few, or on a hundred, or even on a thousand other planets, but on millions of them. Those who oppose the hypothesis do not merely recommend caution about hypothesizing intelligent life elsewhere in the cosmos. Nor do they simply express doubts about the number of places where it may be found. They deny its existence entirely. The alternatives with which we are confronted are: none or millions.

We are not concerned with the respective merits of the opposing views or with the reasons or evidence offered in support of them. For our present purpose we are concerned only with two hypothetical questions, and they are:

1. IF intelligent life is found anywhere else in the cosmos, without regard to the number of planets on which it is found, will such extraterrestrial intelligence be essentially like human intelligence—a thinking mind with intellectual as well as sensory powers?
2. IF NOT, will it be instead on the level of brute animals, and so be *inferior* to human intelligence; or will It be *superior* to human intelligence by virtue of having cognitive and ratiocinative powers that surpass those of the human intellect—powers of a kind and magnitude with which we have no acquaintance at present?

My response to these two questions is definite only with respect to the last alternative. I think I can argue that if extraterrestrial intelligence is found elsewhere in the universe, it will not surpass human intelligence by virtue of having novel cognitive and ratiocinative powers not possessed by man. I think I can explain why a living, corporeal organism that is equipped with senses, memory, and imagination, and that also has bodily feelings and is subject to the turbulence of the emotions, cannot have cognitive and ratiocinative powers superior in kind to the powers of the human intellect.

The rest of that question I cannot answer definitely, nor can I support with reasonable arguments whatever conjectures I may harbor. I cannot say whether extraterrestrial intelligent beings, if they are found, will have powers essentially like our own; nor can I say that they will have inferior powers and so be on the same level as that of the brute animals on earth, equipped only with instincts and emotions and a range of sensory powers but totally lacking intellect.

These conjectures are not decisive with respect to other possibilities. The sensory powers of extraterrestrial living organisms may be different from those of human beings and of other earthly animals. To the extent that they are the same, they may be more or less acute, differing in degree from the powers we have or that are possessed by other animals on earth.

Readers will discern the assumption I am making. I am taking it for granted that if extraterrestrial intelligence is found on other planets, it will be found in corporeal living organisms, not totally disembodied or, if embodied, not in machines or robots. That assumption eliminates many of the fanciful characters of science fiction with which we need not be concerned.

In addition, the assumption I am making about extraterrestrial intelligence being embodied in living organisms employs the words "living," "organism," "corporeal," and "body" with exactly the same meanings we attach to them when we talk about terrestrial things. If the opposite were true, if we were to use these words equivocally so that when used of terrestrial and extraterrestrial-beings they did not have the same meaning, then we would not know what we were talking about and would be engaging in the wildest of science fiction.

In short, I am saying that what it means to be alive, to have a body, to be equipped with senses, memory, and imagination, and to have

an intellect must be the same in order for us to talk intelligibly and meaningfully about terrestrial and extraterrestrial beings.

Confining myself, as indicated above, to arguments for the one definite conclusion that is completely negative, I will try to show why it is very unlikely, if not impossible, for extraterrestrial living organisms to have cognitive and ratiocinative power superior in kind, not just in degree, to those of the human intellect.

The theoretical underpinnings of my argument have already been intimated earlier in this book. In chapter 1, in discussing the significance attached to the word “soul” in antiquity, I pointed out that having a soul was not thought to be peculiar to humans. Animals, too, and also plants have souls, for having a soul is simply equivalent to being alive. To be alive is to be besouled.

In this context I also pointed out that, in discussing soul, the ancients observed the three grades of life with which living organisms are endowed, derived from the fact that organic bodies have three grades of soul: (1) the vegetative soul that endows plants with the power to nourish, to grow, and to reproduce; (2) the sensitive soul that endows brute animals with all the foregoing vegetative powers and, in addition, all the powers of sense, appetite or desire, and of locomotion or of attachment to a place, as in sessile shellfish; and (3) the intellectual soul that endows human beings, in addition to all the powers possessed by plants and brute animals, with the rational powers of conceptual thought, judgment, ratiocination, deliberation, and decision with free choice among alternatives.

What should be immediately noted is that these three grades of life—vegetative, sensitive, and intellectual—constitute an ordering that is hierarchical. That ordering is like the order of the integers in arithmetic, or of the regular plane figures in geometry.

Consider the series constituted by triangle, square, and pentagon. In that ascending series, the second differs from the first by the addition of one angle, as does the third from the second. Furthermore, the square includes within its boundaries two triangles that can be found by drawing one diagonal; and the pentagon includes within its boundaries both a square and a triangle, which can be found also by drawing one diagonal.

The same kind of hierarchical ordering prevails among the three grades of life. Brute animals that have vegetative powers differ from plants that have these same powers by the addition of one

other set of conjoined powers: sensitivity, appetite, and either local motion or occupation of place. Human beings that are rational animals have vegetative and sensitive powers, but they differ from other animals that are brute by the addition of a still further set of conjoined powers: all the intellectual powers of conceptual and rational thought.

This hierarchical ordering of the grades of life differs markedly from the scientific taxonomies employed in the classification of plants by botanists and of animals by zoologists. Such classifications involve many levels of generality from such lower level classes as species and genera up to higher level classes such as phyla, families, and orders. At the higher 'levels of the zoologist's taxonomy, or scheme of classification, we encounter such distinctions as those between unicellular and multicellular animals, between animals without backbones and those with; and among those with backbones, the distinctions that establish such classes as fish, reptiles, amphibians, birds, and mammals.

What is notable about this method of classification, as contrasted with the hierarchical ordering outlined above, is that in order to define distinct classes, it employs differences that are all positive and coordinate. Thus, for example, among vertebrates that have locomobility, some crawl; some walk; some swim; some fly; some fly and walk; some swim and walk; and some crawl, walk, and swim. Similarly, among mammals that have progeny, some reproduce oviparously by carrying the embryonic organism in utero and some reproduce viviparously by the laying of eggs.

This method of classification can be stated formally as follows. In the genus "X," two species of that genus are differentiated by two positive and coordinate differences "a" and "b." "Xa" and "Xb" are species of the genus "X," one neither higher nor lower than the other.

In contrast, the hierarchical ordering of the three grades of life is accomplished by another type of differentiation as follows. In the most comprehensive genus, that of all living organisms, plants have only one set of vital powers (the vegetative) and animals have that set of vital powers plus one additional set of powers (the sensitive). In consequence, plants can be defined *negatively* as nonsensitive vegetative living organisms. If "X" is used to represent the genus *living organisms*, and if "a" and "b" are used to represent vegetative and sensitive powers, then plants can be defined as "Xa, non b" and animals can be defined as "Xa, b." Then, in the less comprehensive genus *animal living organisms*, using "c" to repre-

sent the intellectual powers, brute animals can be defined as “X, a, b, non-c.” That leaves human animals to be defined as “X, a, b, c.”

Plants are thus seen to be living organisms that have vegetative powers but lack sensitive and intellectual powers; brute animals are seen to be living organisms that have both vegetative and sensitive powers but lack intellectual powers; and human beings, at the summit of this hierarchical order, have all three sets of powers—vegetative, sensitive, and intellectual.

The hierarchical order is an ascending series of grades of life in which the higher grade always includes the powers possessed by the lower and surpasses it by the possession of one additional set of powers. The lower grade is always differentiated from the higher grade negatively by deprivation of a set of powers possessed by the higher grade.

In sharp contrast, the classifications employed by taxonomic botanists and zoologists tend for the most part to differentiate classes—species, genera, phyla, and so on—by contrary positive properties that render the classes thus differentiated *coordinate*, not higher and lower—not *supraordinate* and *subordinate* to one another.

If evolution and speciation were to continue in the millions of years that lie ahead on earth, and if this planet is not destroyed by a man-made cataclysm, nothing higher than human life would ever evolve. A higher grade of intelligence is conceivable, but to be a higher grade of intelligent life, a living being would have to have intellectual powers that are not limited by their dependence on the corporeal powers that are present in all animal life, including human life—dependence on the senses and on the passions.

The angelic intellect is a grade of intelligent life higher than human life, but angels, being incorporeal (minds *without* bodies, intellects totally separated from matter),\* would not be organisms and would hardly be terrestrial creatures. For exactly the same reasons, they would not and could not exist anywhere in the physical, corporeal universe.

\*For a fuller discussion of this, see my book *The Angels and Us* (1982).

If, in addition to being quite conceivable by anyone who is not a dogmatic materialist, angels do have real existence in the universe (which is affirmed by religious faith but is not demonstrable by philosophical argument), their home is in heaven, which is not a physical place having the familiar dimensions of time and space.


In the hierarchical order of the grades of life, there is nothing intermediate between plant and animal life. Tropism in plants is quite distinct from sensation in animals. Nor is there anything intermediate between brute animal and human life, between the non-intellectual and the intellectual.

Each is a whole step up or down, as in the series of integers without intermediate fractions or, even more plainly, as in the series of rectilinear plane figures in geometry. There can be nothing intermediate between triangle and quadrangle, or between quadrangle and pentagon. Similarly, there is no grade of intelligent life that is intermediate between that of the human and that of the angelic intellect, superior in kind to the former and inferior in kind to the latter.

In order to have an intellect superior to the human intellect, it would be necessary to have one that is in no way dependent on the senses, the sensitive memory, and imagination; one that is not in any way affected by bodily feelings; one that is not in any way impeded in its operations by bodily emotions, or pushed blindly by the driving force of the passions. All these advantages can be enjoyed only by an intellect in total separation from a body—by the intellect of an angel, not by an intellect that belongs to a body and for which the necessary, though not the sufficient, condition of its functioning is the action of a brain and nervous system.

Plato and Descartes, who misconceived the human intellect as functionally independent of a body though mysteriously attached to one, committed what I have called an angelistic fallacy. This consists in attributing to the human intellect properties and powers that, if they have reality, could only be found in the angels in heaven, not in any earthly or extraterrestrial physical organism.\*

\**The Angels and Us*, chapters 9 10.

If we avoid that angelistic fallacy, we are left with the conclusion that neither on earth nor anywhere else in the physical cosmos will there ever be found corporeal intelligent life that is superior in kind to the human intellect. 

*We welcome your comments, questions, or suggestions.*

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