



GREAT IDEAS FROM THE GREAT BOOKS

MORTIMER J. ADLER

PART I (Continued)

Questions About Philosophy, Science, and Religion

3. WHAT IS PHILOSOPHY?

Dear Dr. Adler,

I don't understand what is meant by the term "philosophy." It does not seem to have any definite subject, as the sciences and scholarly research do. Does philosophy include everything, all fields of knowledge? Or is it merely thought, without any particular sub-

ject? Is philosophy a science that gives us solid and precise knowledge, or is it just the art of thinking? Why can't we agree on the purpose of a human endeavor that has been going on for thousands of years?

J. P.

Dear J. P.,

What makes it so difficult to define philosophy is the great diversity of views on what the subject matter and task of philosophy is. On the one hand, it is presented as basic knowledge about the nature of things; on the other, as a guide to the good life. In medieval times it was regarded as the handmaiden of theology; now many regard it as an auxiliary of the natural and social sciences.

The term "philosophy" literally means the love of wisdom. In this sense, philosophy is an aspiration or quest rather than a storehouse of attained and transmittable knowledge. Socrates points out that the philosopher claims only to love wisdom, not to have it.

Socrates makes the philosopher's way more concrete when he says that the unexamined life is not worth living and that we should follow the argument wherever it leads. This sounds the inquiring note, the questioning attitude, that is essential to philosophy. It also sounds the ethical note of the good life, which is a recurrent emphasis in philosophy.

Aristotle worked out the content of philosophy in a monumental and rich body of writings. He divided philosophy into various disciplines. Foremost among these was what he called "first philosophy," or metaphysics, which is knowledge of ultimate principles and causes. This metaphysical emphasis has also played a major role in philosophy.

In modern times the main emphasis has been on the nature of knowledge and the structure of the mind that knows. Immanuel Kant, who led the way here, distinguishes between the empirical knowledge available to natural science and the rational knowledge attainable by philosophy. There is much discussion today about the relative roles of philosophy and science. Currently it is to science, not philosophy, that men look for basic knowledge. One of the strongest schools of modern philosophy, positivism, holds that only the empirical sciences are true knowledge, and that philosophy's role is to be merely an interpreter and critic of these sciences.

My own view is that philosophy provides a distinct kind of knowledge which has the quality of wisdom. It affords wisdom about the nature of man, the world, and God, and wisdom about the good life and the good society. It deals with the fundamental question about the nature of things and the ends of life. It is, therefore, superior, both speculatively and practically, to science, which deals with more superficial and less important matters.

According to this view, philosophy is the concern of all men. It is not a specialty, requiring mastery of a complicated methodology, higher mathematics, or elaborate apparatus. The true philosopher is a rare bird, but only because whole-hearted and consistent dedication to the pursuit of wisdom is rare amid the distractions of this world. Yet everyone can answer this call, for the only things a man needs to be a philosopher are the mind that God gave him and a desire to know the ultimate truth.

What I have said above suggests the answers to all your questions. Philosophy is not an experimental science in the sense in which physics, chemistry, and physiology are; it is a rational science which, like mathematics, develops by systematic reflection and analysis. Neither the mathematician nor the philosopher appeals to any observed facts except those of common experience. Both can conduct all their explorations while sitting at a desk; both are arm-chair thinkers.

Philosophy is not an art, but it makes use of the liberal arts, especially the art of dialectic. It is not theology, for where theology takes its departure from articles of religious faith, philosophy starts with common sense and attempts to refine and deepen the understanding of the world which is latent in common sense.

Far from being prescientific, philosophy is postscientific. Though, as a matter of historical fact, philosophical inquiry began long before scientific experimentation, it will also continue long after we have reached the limits of experimental knowledge. The empirical sciences have already matured, and there are indications that at certain points they have gone as far as they can go. But philosophy is still in its infancy. Its full growth lies many millennia ahead.

4. PHILOSOPHY IN AN AGE OF SCIENCE

Dear Dr. Adler,

Science has provided the knowledge and the tools that have produced the modern industrial age. Now we are calling for more and more of our young people to take up careers in science and engineering in order to keep pace with Russia in the cold war. Where does philosophy fit into the picture? Can philosophy help us in our present time of crisis? Or is philosophy obsolete in the present scientific age?

W. L.

Dear W. L.,

Let us first consider what science can and cannot do—its proper scope and function.

The sciences study physical and social phenomena in order to arrive at an accurate picture of them. They try to describe how things behave. They may be concerned with the movement of the heavenly bodies, the inner workings of the atom, physiological processes, social movements, or human behavior.

What is the utility of scientific knowledge? Francis Bacon answers that question by saying that science gives us power. It enables us to exercise a certain degree of mastery or control over the physical and social phenomena of the world in which we live. Another way of answering the question is to say that science enables us to produce things. Applied by the engineer or the physician, it helps him to build bridges or to restore health. But the same knowledge can also be used, as we know, to destroy things and to maim or kill men.

In other words, science gives us power which can be used either constructively or destructively. It provides us with means which may facilitate our pursuit of bad ends as well as good. Science itself is not only morally neutral, that is, indifferent to the value of the ends for which the means are used; it is also totally unable to give us any moral direction, for it affords us no knowledge whatsoever of the order of goods and the hierarchy of ends.

You are quite right, therefore, in suggesting that science must be supplemented by philosophy if the means that science gives us are to be used for worthwhile ends. Many people today think that phi-

philosophy is useless as compared with science, because it cannot be applied in the production of things or in the control of means. But philosophical knowledge is useful in a quite different and, in my judgment, superior way. Its utility or application is moral or directive, not technical or productive. Where science furnishes us with means we can use, philosophy directs us to ends we should seek.

Let me make this last point quite clear. The conduct of human life and the organization of human society depend on our answers to such questions as what happiness consists in, what our duties are, what form of government is most just, what constitutes the common good of society, what freedom men should have, and so on. Not one of these questions, nor any question like them which involves right and wrong or good and bad, can be answered by science, *now or ever*.

Without the answers to these questions, we are adrift in the world without compass or rudder. As long as our individual bark or the ship of state has little power at its disposal, we may not be in great danger. But, as you point out, in this atomic age when we can move at great speed and with great power, catastrophe threatens us at every turn if we do not know the right turn from the wrong one.

It is philosophy, not science, that teaches us the difference between right and wrong and directs us to the goods that befit our nature. Just as the productive utility of science derives from its accurate description of the way things behave, so the moral utility of philosophy derives from its profound understanding of the ultimate realities that underlie the phenomena which science studies. Each kind of knowledge answers questions that the other cannot answer, and that is why each is useful in a different way.

In my judgment it is philosophy, not science, which should be uppermost in any culture or civilization, simply because the questions it can answer are more important for human life. Certainly it should be clear that the more science we possess, the more we need philosophy, because the more power we have, the more we need direction.

5. THE RELATION OF MATHEMATICS TO PHILOSOPHY

Dear Dr. Adler,

In the recent emphasis on scientific education, much attention has been given to the role of mathematics in the sciences. I have also

noticed that many philosophers have placed a high value on mathematical thought. What is the nature of mathematics, and why does it play such an important role in science and philosophy? Why is mathematics included in most programs of general education, apart from its special use? Does mathematics have a practical value in the things of everyday life?

G. K.

Dear G. K.,

At the very beginning of Western thought, the practical usefulness of mathematics was recognized by Herodotus, who attributes the origin of geometry to Egyptian land surveyors. Indeed, geometry originally meant “land measurement.” But the Greek philosophers, notably Plato, scorn the notion that mathematics is to be valued mainly for its usefulness in surveying land or in measuring the movements of the heavenly bodies. According to Plato, the study of mathematics is the ideal preparation for philosophical thought, because it draws the mind away from visible and tangible things to the consideration of purely abstract objects—numbers, figures, and proportions.


Plato’s position led to another type of disagreement about the nature of mathematics, one which persists down to the present day. Aristotle agrees with Plato that mathematics has value as knowledge, quite apart from its practical applications, but he disagrees vigorously that it should be taken as the model for all philosophical knowledge. He complains that the followers of Plato identify mathematics with philosophy, and that students of philosophy would not listen to a lecturer who did not present his ideas in mathematical style. According to Aristotle, each science has a method appropriate to its subject matter, and, therefore, the mathematical method should not be used in other sciences.

This ancient disagreement repeats itself in modern times in the opposed views of Descartes and Kant. Descartes, a great mathematician as well as a philosopher, proclaims mathematical method to be the sole gateway to all knowledge, including knowledge of the physical universe. For him, as for Newton and other great modern scientists, the physical world is so made that it can be best understood through mathematical analysis. The material universe, in this view, has a structure that can be expressed in exact mathematical terms.

Kant agrees that mathematical principles are applicable in the study of the physical world, and he admires Newton's genius. But he warns philosophers against being misled by the brilliant success of mathematics in a field where exact knowledge of quantitative relations suffices. Some of our most important knowledge cannot be obtained, he says, by proceeding from clear definitions and axioms to the demonstration of certain and exact conclusions. This is particularly true of philosophical knowledge, where clear distinctions are attained at the end of an inquiry, not at the beginning. And mathematical method can play no role in ethics, which was for Kant the crowning philosophical science.

Mathematics has changed greatly in the course of the centuries, but this age-old controversy still goes on among philosophers. Among contemporary thinkers, Bertrand Russell, for example, represents the mathematical approach to all problems, whereas John Dewey prefers the biological and experiential approach. But whatever the disagreement among philosophers as to the value of mathematics as a model for all types of knowledge, they agree on one thing—that mathematics affords exact and certain knowledge, reached by rigorous reasoning, unaided by experiments or empirical investigation.

These characteristics of precision, rigor, and pure rationality have led educators down the ages to place a high importance on the teaching of mathematics. As Plato insists, mathematics is the discipline which leads the mind to the consideration of abstract objects and relations. It makes the quantitative aspect of the world intelligible. It provides an impressive example of deductive reasoning, proceeding with certitude from clear premises to necessary conclusions.

This is the highest “practical value” of mathematics—the role it plays in the development of the human mind. There are many everyday applications of mathematics—in land surveying, navigation, designing houses and dresses, directing artillery fire. But even when electronic computers and other devices have supplanted human “figuring,” our minds will still require mathematical discipline in order to grasp an essential aspect of the world in which we live. 

We welcome your comments, questions or suggestions.

THE GREAT IDEAS ONLINE

is published weekly for its members by the

CENTER FOR THE STUDY OF THE GREAT IDEAS

Founded in 1990 by Mortimer J. Adler & Max Weismann

Max Weismann, Publisher and Editor

Marie E. Cotter, Editorial Assistant

Homepage: <http://www.thegreatideas.org/>

A not-for-profit (501)(c)(3) educational organization.

Donations are tax deductible as the law allows.