

Philosophy

INTRODUCTION

THE difficulties which attend the consideration of any great idea—by philosophers or others—appear with peculiar force in the traditional discussion of philosophy itself. The word “philosophy” not only varies in its descriptive significance, now designating one part of learning, now another, and sometimes even an attitude of mind or a way of life; but it also varies as a term of evaluation. It is seldom used without expressing either praise or dispraise of the methods and accomplishments of philosophy, or of the calling and character of the philosopher.

On the descriptive side the meaning of the word ranges from a conception of philosophy which covers *all* branches of scientific knowledge and which contrasts philosophy with poetry, history, and religion, to a conception of philosophy in which the primary point is its contrast to science and its association with poetry and religion as works of vision, speculation, or belief rather than of knowledge.

On its evaluative side, the word “philosophy” sometimes eulogizes the love and search for truth, the pursuit and even the attainment of wisdom. At the other extreme, it derogates vain learning, idle disputation, and the dogmatism of unsupported opinion. At one time, the good name of the philosopher stands in contrast to the questionable reputation of the sophist. At another, “philosopher” carries almost the same invidious connotation as “sophist.” The dismissal of philosophy as useless, or at best ornamental, in the practical affairs of society is sharply opposed to the vision of an ideal state which can come to pass only if philosophers are kings, or kings philosophers.

THESE SHIFTS IN the meaning of the words “philosophy” and “philosopher” record crises in the history of western thought. They reflect the characteristic formations of our culture in its major epochs.

The great books of antiquity, for example, seem to give no intimation of a division between science and philosophy. Particular bodies of knowledge, such as physics or mathematics, are indifferently regarded as sciences or branches of philosophy. The crown of knowledge is wisdom, approached as one rises in the hierarchy of knowledge to the highest science or the first philosophy. Aristotle and Plato may disagree in naming or defining the type of knowledge which deserves to be called wisdom, yet for both it is the ultimate attainment of philosophical inquiry or scientific work.

The differences between Plato and Aristotle discussed in the chapters on DIALECTIC and METAPHYSICS—the one using “dialectic” as the name for the supreme form of knowledge, the other using “theology” to name the summit of the sciences—do not affect their agreement that the philosopher is a man of knowledge, not opinion, and that his ultimate goal is wisdom.

If there is any distinction in antiquity between science and philosophy, it seems to find expression in the sense in which Socrates speaks of philosophy as the love of wisdom, implying thereby its pursuit rather than its attainment. A man would not be called a scientist in a particular field—mathematics, let us say—unless he actually had some mathematical knowledge; but a man who is not actually wise can be called a philosopher by virtue of

his effort to become wise. Apart from this point of distinction, the Greeks tend to identify philosophy with the fundamental sciences, which somehow yield speculative or practical wisdom.

Considering the whole of human learning, all its arts and disciplines, we see that the things the ancients distinguish from philosophy are poetry, history, and the particular productive arts or crafts. Here again Plato and Aristotle do not make the distinction in the same terms. Plato compares the poet unfavorably with the philosopher in *The Republic*. The poet is an imitator of imitations and moves on the level of images and beliefs, whereas the philosopher rises above the imagination to the level of ideas which are the only true objects of knowledge. Aristotle, on the other hand, seems to pay poetry a compliment when in *On Poetics* he says that it is more philosophical than history because it deals with the universal rather than the particular. These attitudes toward poetry in relation to philosophy are somewhat reversed by the fact that for Plato myth and poetry provide materials from which philosophical insights can sometimes be distilled, whereas for Aristotle sense-experience is the source from which, by induction, the principles or axioms of philosophical knowledge are obtained. Despite these differences their accord on the supremacy of the philosopher remains unaffected.

More than poetry and history—and all the knowledge that can be applied productively—philosophy represents the highest use of man's faculties. On this Aristotle and Plato seem to be agreed, even though Aristotle distinguishes the philosophical from the political life and assigns the most perfect happiness to the contemplative activity of the philosopher, whereas Plato—in *The Republic* at least—brings the philosopher back to the shadows of the cave after he has seen the light of truth itself, so that he can put his wisdom to practice in the government of his less fortunate fellowman.

THE PRACTICE OF philosophy seems to become, for the Roman writers, more important than the content of philosophy as a body of doctrine. "What is that which is able to conduct

a man?" asks Marcus Aurelius. "One thing and only one, philosophy." It keeps the inner man "free from violence and unharmed, superior to pains and pleasures, doing nothing without a purpose." It enables him to "accept all that happens and all that is allotted . . . and finally to wait for death with a cheerful mind, as being nothing else than a dissolution of the elements of which every living being is compounded." To Aurelius his imperial court is like a stepmother to whom one must be dutiful, philosophy like a mother from whom one gains solace and help. "Return to philosophy frequently and repose in her," he tells himself, so that "what thou meetest with in the court appears to thee tolerable, and thou tolerable in the court."

The Stoic conception of philosophy as a moral discipline and as a consolation creates that sense of the word in which the familiar injunction to a person in distress—"Be philosophical"—carries the same meaning as "Be stoical." Philosophy provides only peace of mind, not worldly riches or external power. "Philosophy does not promise to secure to man anything outside himself," says Epictetus. Nor does it fulfill its promise of inner strength without stern resolution to withdraw desire from the goods of fortune.

"Do you suppose that you can be a philosopher if you do as you do now?" Epictetus asks. "Do you suppose that you can eat and drink as you do now, and indulge your anger and displeasure just as before? No, you must sit up late, you must work hard, conquer some of your desires . . . When you have carefully considered these drawbacks, then come to us . . . if you are willing to pay this price for peace of mind, freedom, tranquility." Do not try to be "first a philosopher, then a tax-collector, then an orator, then one of Caesar's procurators. These callings do not agree . . . You must be busy either with your inner man, or with things outside, that is, you must choose between the position of a philosopher and that of an ordinary man."

There seems to be no difference between the Stoic and Epicurean conception of philosophy. Lucretius praises Epicurus, who was "first to raise / The shining light out of tremendous dark / Illuminating the blessing of our

life . . . Once your reason, your divining sense,
/ Begins its proclamation, telling us / The way
things are, all terrors of the mind / Vanish."

But for Lucretius philosophy achieves this boon not merely by curbing the passions and quieting desires, but also, and primarily, by the truth of its teachings about the constitution of the world and the causes of things. Nor is it merely that the philosophical mind is able to dwell in "those calm heights, well built, well fortified / By wise men's teaching, to look down from here / At others wandering below, men lost, / Confused, in hectic search for the right road." Philosophy provides a more specific remedy for the deepest of human ills by freeing "men's spirit from the ties . . . which religion binds around them."

Men fear the thunderbolts of the gods, their intervention in the course of nature and human affairs, and the punishments of the afterlife. Before Epicurus taught them the mortality of the soul and the atomic determination of all things, "human life . . . lay foully grovelling on earth, weighed down / By grim Religion." His teaching concerning "what can be / And what cannot," rids the mind of the terrors fostered by religion. This "darkness of mind / Must be dispelled . . . by insight into nature, and a scheme / Of systematic contemplation."

EXCEPT FOR Lucretius, the triumph of philosophy over religion does not seem to be central to ancient conceptions of philosophy's contribution to the mind and life of man. In the pagan world, religious belief is either combined with philosophy to constitute the worship of the gods, which seems to be Plato's view in the *Laws*; or it represents the superstitions of the ignorant as opposed to the sophistication of the educated. Gibbon describes the rift between religion and philosophy not as a matter of intellectual controversy, but as a division of society into classes lacking or having the benefits of education—or, what is the same in the ancient world, instruction in philosophy.

But in the medieval world, the distinction between philosophy and religion seems to be essential to the consideration of the nature and value of philosophy. The importance of the distinction appears alike in the great books

of the Christian tradition and in the great writings of the Islamic and Jewish cultures—in Augustine and Aquinas, Avicenna, Averroës, and Maimonides—though the problem of philosophy's relation to religion and theology may be quite differently solved by each. In all three religious communities secular learning and sacred doctrine are set apart by their origin—the one from the efforts of human reason, the other from the word of God as revealed to the faithful. Even when it is held in highest esteem as the best achievement of secular learning, philosophy is for the most part regarded as inferior to the teachings of religion.

There are those—the simply religious, the devout, the mystical—who abominate the pretensions of reason and the vanity of philosophers who claim either merit or need for any knowledge beyond the truths which God himself has revealed. This position is expressed by such Christian writers as Tertullian, Peter Damian, Bernard de Clairvaux; or, in the Arabic tradition, by al-Ghazālī's *The Destruction of Philosophy*. Al-Ghazālī is answered by Averroës in his *Destruction of the "Destruction"* which asserts the supremacy of philosophy. Averroës reserves philosophy for men of requisite intellectual strength and relegates theology and religion to those who must substitute opinion and imagination for reason.

Neither Augustine nor Aquinas goes to these extremes. They do not dismiss philosophy as useless learning or as dangerous folly, subversive of the wisdom of faith; but neither do they admit the sufficiency of philosophy for knowledge of God—the mysteries of the divine nature, God's providence and His gracious gift of salvation to man.

Quoting Saint Paul's warning to "beware lest any man spoil you through philosophy and vain deceit according to the tradition of men and the rudiments of the world, and not according to Christ," Augustine defends his praise of the Platonic philosophy which in his judgment comes nearest to the Christian faith, on the ground that the Apostle also said to the gentiles that "that which is known of God is manifest among them, for God has manifested it to them." Yet he adds that "the Christian man who is ignorant of their writings . . . is

not, therefore, ignorant that it is from the one true and supremely good God that we have that nature in which we are made in the image of God, and that doctrine by which we know Him and ourselves, and that grace with which, by cleaving to Him, we are blessed."

Philosophy, according to Augustine, can thus be dispensed with in all the major concerns of knowledge, love, or action. But Augustine does not argue that it should therefore be discarded. "If those who are called philosophers," he says, "and especially the Platonists, have said aught that is true and in harmony with our faith, we are not only not to shrink from it, but to claim it for our own use from those who have unlawful possession of it," even as the spoils of the Egyptians belong to the Jews.

Though Augustine and Aquinas conceive the relation of faith and reason differently, they seem to share a conception of philosophy as the handmaiden of theology when faith seeks understanding. For Aquinas this does not appear to imply lack of dignity or even the loss of a certain autonomy on the part of philosophy. On the contrary, so highly does he regard the demonstrations of Aristotle, whom he calls "the philosopher," that he opens the *Summa Theologica* with the question "Whether, besides the philosophical sciences, any further doctrine is required."

He answers that "it was necessary for the salvation of man that certain truths which exceed human reason should be made known to him by divine revelation. Even as regards those truths about God which human reason can investigate, it was necessary that man be taught by a divine revelation. For the truth about God, such as reason can know it, would only be known by a few, and that after a long time, and with the admixture of many errors; whereas man's whole salvation, which is in God, depends upon the knowledge of this truth . . . It was, therefore, necessary that besides the philosophical sciences investigated by reason, there should be a sacred science by way of revelation." That sacred science is theology—not the theology which is a part of philosophy, but the theology whose principles come from faith rather than from reason.

"There is no reason," Aquinas writes, "why those things which are treated by the philosophical sciences, so far as they can be known by the light of natural reason, may not also be treated by another science so far as they are known by the light of the divine revelation." On this view, sacred theology may treat of certain things, such as the mystery of the Trinity, which do not belong properly to the philosopher because they exceed the power of reason to demonstrate; but other matters concerning nature, man, and God may belong both to the philosopher and to the theologian, who consider them according to their different lights. Since a truth cannot conflict with a truth, though reason sponsors one and faith the other, there can be no conflict between philosophy and theology.

SOME MODERN philosophers, like Francis Bacon and John Locke, seem to agree with medieval theologians about the subordination of philosophy to theology. But for the most part the modern tendency, increasingly evident in the writings of Descartes, Spinoza, Kant, and Hegel, is to insist upon the complete autonomy of philosophy.

Hegel, for example, challenges "the imputation against Philosophy of being shy of noticing religious truths, or of having occasion to be so," and the insinuated "suspicion that it has anything but a clear conscience in the presence of these truths. So far from this being the case," Hegel remarks, "the fact is that in recent times Philosophy has been obliged to defend the domain of religion against the attacks of several theological systems."

The diverse aspects of the problem of the relation of philosophy to theology, and of theology to faith, are discussed in the chapters on METAPHYSICS, THEOLOGY, and RELIGION. The problem which is more characteristic of the modern consideration of philosophy concerns its relation to science.

To state the problem some distinction between the two is necessary, and making this distinction represents a novel departure, both in thought and language. As we have seen, philosophy and science are almost identified throughout the ancient and medieval tradition.

Insofar as the word "science" means knowledge rather than opinion, the result of philosophical inquiry is science, and philosophy as a whole is divided into a number of sciences. There may be, as ancient writings seem to suggest, sciences which aim at useful productions rather than at speculative or practical wisdom, and fall below the level of philosophy; or there may be, as some Christian theologians hold, a sacred science superior in its wisdom to all philosophical sciences. But these exceptions to the identity of philosophy and science merely confirm the point that in the ancient or medieval view philosophy is scientific and consists of sciences, even though there may be sciences which are not philosophical.

This use of the words "science" and "philosophy" persists well into modern times. Hobbes, for example, presents his classification of the types of knowledge under the heading "science, that is, Knowledge of Consequences, which is also called Philosophy." Bacon proposes to "divide sciences into theology and philosophy." Descartes uses the words "science" and "philosophy" interchangeably. "Among the different branches of Philosophy," he says, "I had in my younger days to a certain extent studied Logic; and in those of Mathematics, Geometrical Analysis and Algebra—three arts or sciences which seemed as though they ought to contribute to the design I had in view." In the Prefatory Letter to his *Principles of Philosophy*, he likens "philosophy as a whole" to "a tree whose roots are metaphysics, whose trunk is physics, and whose branches, which issue from this trunk, are all the other sciences. These reduce themselves to three principal ones, *viz.*, medicine, mechanics, and morals."

Even as near the end of the 18th century as Hume, the word "philosophy" continues to be the general name for the particular sciences. It covers the experimental study of natural phenomena as well as what are for Hume the nonexperimental sciences of mathematics and psychology. But it excludes divinity or theology, insofar as "its best and most solid foundation is *faith* and divine revelation"; metaphysics, which is "nothing but sophistry and illusion"; and all inquiries into particular

as opposed to general facts, such as "history, chronology, geography, and astronomy."

Nor is this use of terms confined to what readers today would call books of philosophy. The authors of the books which are today regarded as among the foundations of modern science—Galileo, Newton, Huygens, Lavoisier, and Faraday—refer to themselves as philosophers and to the science in which they are engaged, *e.g.*, mathematics, mechanics, physics, chemistry, as parts or aspects of natural philosophy. They do, however, indicate an awareness of how they differ from ancient and medieval scientists (who also called themselves philosophers) by calling their own work "experimental philosophy."

In this phrase lies the root of the distinction between philosophy and science as that distinction is generally understood by writers since the 18th century. The word "experimental" applied to philosophy signifies a radical difference in the method of inquiry and even in the objects to be investigated, for certain objects can be known only by experimental or empirical research. Kant appears to be the first (in the great books at least) to make a sharp separation between the investigation of either nature or mind by what he calls "empirical" as opposed to "rational" methods. He still uses the name "science" for both sorts of investigation, but he appears to restrict "philosophy" to the latter—the pure, the *a priori*, the rational sciences.

Two other innovations must be noted. Though Kant regards it as a rational discipline, he excludes mathematics entirely from philosophy and criticizes its misleading influence upon those philosophers who have tried to imitate mathematical thought. And though he sometimes uses "metaphysic" narrowly to designate the critical examination of pure reason itself, he also says that "this name of metaphysic may be given to the whole of pure philosophy . . . excluding all that belongs to the empirical and the mathematical employment of reason." Considering that it has only two objects, nature and freedom—that which *is* and that which *ought to be*—Kant divides philosophy into the speculative and the practical use of pure reason, which gives rise to a *meta-*

physic of nature and a *metaphysic of morals*. "Metaphysic, therefore, that of nature as well as that of morals, and particularly the criticism of our adventurous reason which forms the introduction to and preparation for it, constitute together," Kant writes, "what may be termed philosophy in the true sense of the word. Its only goal is wisdom, and the path to it, science."

Kant's innovations in vocabulary plainly announce the separation of philosophy from mathematics and experimental science, which is only intimated by earlier modern writers. But Kant still uses the word "science" for both the philosophical and the empirical sciences. The final step is taken in the 19th century when the word "science" is restricted to mathematics and to such knowledge of nature, man, and society as can be obtained by the methods of experimental or empirical research. William James, for example, stresses the fact that he is trying to expound psychology as one of the natural sciences, and to that end he tries to separate the problems which are capable of empirical investigation from those which belong to philosophical speculation. For Freud that separation is an accomplished fact, and one which leaves to philosophy no problem that can be solved by science.

According to Freud, "it is inadmissible to declare that science is one field of human intellectual activity, and that religion and philosophy are others, at least as valuable, and that science has no business to interfere with the other two." On the contrary, Freud thinks it is right for scientific research to look "on the whole field of human activity as its own," and to criticize the unscientific formulations of philosophy. The trouble with philosophy is that "it behaves itself as if it were a science . . . but it parts company with science, in that it clings to the illusion that it can produce a complete and coherent picture of the universe." It is this illusion which science continually punctures, since, in Freud's opinion, "that picture must needs fall to pieces with every new advance in our knowledge."

WHEN SCIENCE AND philosophy are set apart at last, it is possible to make sense of the

typically modern questions concerning philosophy. How does it stand in relation to science? Does it consist of verifiable knowledge comparable to that which can be obtained in the natural and social sciences? If not, what is the standard of truth in philosophy? Does it consist of definitions and postulates leading to rigorously demonstrated conclusions in a manner comparable to mathematics, especially in its modern construction? If not, must it not be regarded as opinion or speculation rather than as knowledge in any strict sense? Or if philosophical thought can be compared with mathematics, does not the diversity of definitions and postulates employed by different philosophers reduce philosophy to a collection of competing "systems" rather than a single discipline in which philosophers work cooperatively as do scientists and mathematicians?

However the foregoing questions are answered, there are still others. Does philosophy have distinct branches, divided according to their objects of study like the natural sciences, or is philosophy to be identified with metaphysics? If, in addition to metaphysics, there is a philosophy of nature, how are its principles and conclusions related to the findings of the natural sciences which appear to study the same object? Similarly, if psychology is a branch of philosophy, how is it related to experimental or clinical psychology? What is the relation of moral and political philosophy to the empirical social sciences concerned with describing, not judging or regulating, human conduct and social institutions? Is economics a science or is it a branch of moral philosophy; or, if it is both, how are the two related?

What is the use of philosophy, especially in its theoretical branches, if, unlike science, it cannot be applied to the mastery of physical nature and the production of utilities, whether bridges or bombs? What, finally, at the end of its long history, does philosophy come to if, in such marked contrast to the continuously accelerated progress of the sciences, it cannot claim any signal advance on which all philosophers are agreed, but instead must admit that most of its problems seem to be perennially debated, now as in every preceding century?

SOME OF THESE questions, as well as certain answers to them, are considered in other chapters: the comparison of empirical research and philosophical thought as constituting different types of science, in the chapter on SCIENCE; the distinction and relation between natural philosophy and natural science, in the chapter on PHYSICS; the difference between philosophical and scientific psychology, in the chapter on MAN; the function of definitions, hypotheses, postulates, or axioms in the foundation and method of philosophy and science, in the chapter on PRINCIPLE; the difference between the practical use of philosophy in the sphere of morals and the use of science in the sphere of the productive arts, in the chapter on KNOWLEDGE; the accumulation of truth as measuring advances in science and philosophy, in the chapter on PROGRESS.

Here we must observe that such answers to these questions as tend to subordinate philosophy to science originate exclusively with modern views of the nature of knowledge, of the criteria of truth, and of the capacities of the human mind, especially the power of reason. Even those modern authors who write at a time when the words "science" and "philosophy" are, for the most part, interchangeable tend in this direction. The points they make about the nature, aim, and method of what they call either science or philosophy have the effect of giving the status of *knowledge* only to mathematics and the empirical sciences, and of reducing philosophical speculation to the status of *opinion*.

Bacon's insistence, for example, that genuine knowledge gives us power over nature and generates productions, seems to have this effect, certainly upon any part of traditional philosophy which cannot meet this test. Hume's insistence upon experimental reasoning with respect to all matters of fact seems to eliminate not only metaphysics, but any science or philosophy of nature which is not experimental. The methodological reforms in philosophy which these philosophers and others, like Hobbes, Descartes, and Spinoza, propose seem to be reforms which eliminate whatever in philosophy cannot become either experimental science or a quasi-mathematical system of thought.

Among the modern reformers of philosophy, Kant represents the exception. By his critical method he hopes to establish philosophy above and independent of all the empirical sciences; and to institute metaphysics as a science which neither imitates mathematics nor accepts it as an equal in the scale of reason's accomplishments. Yet even Kant seems to betray the typically modern attitude toward philosophy. The intellectual revolution which he projects as the philosophical parallel to the Copernican revolution in astronomy is motivated by his desire to secure for philosophy a stability and development comparable to that enjoyed by mathematics and the empirical sciences. Another German philosopher, Heidegger, goes further than Kant in identifying philosophy with metaphysics. It is in metaphysics, he says, that "philosophy comes to itself and sets about its explicit tasks."

"IN THE PROGRESS of society," writes Adam Smith, "philosophy or speculation becomes, like every other employment, the principal or sole trade and occupation of a particular class of citizens. Like every other employment too, it is subdivided into a great number of different branches, each of which affords occupation to a peculiar tribe or class of philosophers; and this subdivision of employment in philosophy, as well as in every other business, improves dexterity and saves time. Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity of science is considerable increased by it."

Despite his use of the word "philosophy," it seems likely that Smith is describing the division of labor in scientific research and the specialization of scientists. Though philosophy has divisions, and though the distinction and order of its parts are discussed by the great philosophers, their own work exhibits a spirit opposed to specialization. In fact, one measure of the greatness of a philosopher is the comprehensiveness of his thought, the range of subject matters and the scope of the problems with which he deals.

Those philosophers, like Aristotle, Bacon, Hobbes, or Kant, who show great interest

in the divisions of philosophy seem to be largely concerned with distinguishing the different objects of philosophical thought and differentiating the concepts or principles peculiarly relevant to each. Other chapters deal with subject matters, sciences, or disciplines that have been regarded, by one philosopher or another, as major divisions of philosophy, e.g., LOGIC, METAPHYSICS, THEOLOGY, DIALECTIC, MATHEMATICS, PHYSICS, and psychology (in the chapter on MAN). But one group of sciences or disciplines is not discussed elsewhere and must be briefly noted here. Traditionally within the province of the philosopher, they are sometimes expanded to his whole domain. They come nearer to what the ordinary man means by "philosophy" when he speaks of having a philosophy of life—an overall yet personal view of the human situation, illuminated by a sense of the values which should direct conduct.

The disciplines in question are traditionally called ethics and politics, or moral philosophy. Socrates is credited with having accomplished the first great reform in philosophy when he turned to such subjects and away from the inquiries of his predecessors. "I do not mean to speak disparagingly of the students of natural philosophy," he says at his trial, "but the simple truth is, O Athenians, that I have nothing to do with physical speculations." Subsequently he tells his judges that he "will never cease from the practice and teaching of philosophy"—reproaching those whom he questions with "under-valuing the greater and over-valuing the less," enjoining them not to take thought of their persons or their properties, "but first and chiefly to care about the greatest improvement of the soul." He will not foreswear philosophy even to save his life. "I cannot hold my tongue," he says. "Daily discourse about virtue . . . is the greatest good of man," for "the unexamined life is not worth living."

The conception of ethics and politics and of their relation to other branches of philosophy seems to depend upon the acceptance or rejection of a fundamental principle in the division of philosophy. Aristotle and Kant, for example, divide the philosophical sciences into the

theoretical or speculative and the practical or moral, according as they consider what *is* (the nature and causes of things) or what *ought to be* (the objects of choice, the ends and means, in the conduct of life and the institutions of society). According to this conception of the practical, the practical sciences are ethics and politics, and with them economics and jurisprudence; or in another statement of the same divisions, the parts of practical philosophy are moral philosophy, the philosophy of right, the philosophy of law. They are all conceived as normative, prescriptive, or regulative disciplines, determining what is good and evil or right and wrong, and directing action in the sphere of human freedom.

Hobbes proceeds on a different principle. He separates natural philosophy (including *philosophia prima*) from civil philosophy, or the theory of the body politic. But he includes ethics and poetics under natural philosophy as part of the theoretical study of human nature. The distinction between the theoretical and the practical seems to be here ignored, or even implicitly denied insofar as Hobbes would reject the basis of the distinction—the difference between natural necessity and human freedom. Necessity governs the motions of the human body and of the body politic as much as it does the bodies studied by the physicist, and so ethics, politics, and physics are alike sciences of determined consequences.

Still another view seems to be taken by Bacon who separates natural from human and civil philosophy and divides natural philosophy into two main speculative branches (physics and metaphysics) and two main practical branches (mechanics and magic). Psychology, logic, and ethics belong to human philosophy; politics and jurisprudence to civil philosophy. But with respect to all of these Bacon does not apply the distinction between the speculative and the practical which seems to him of the utmost importance in natural philosophy. The reason seems to be that Bacon uses the word "practical" to mean the production of effects resulting from the knowledge of causes, rather than actions to be performed by men as the result of choice. His practical sciences correspond, therefore, to what Aristotle conceives

as arts, or productive sciences—the sphere of making or poetics in general—not to what Aristotle means by the practical, the sphere of doing rather than of making, of prudence rather than of art. These matters are discussed in the chapters on ART and POETRY.

The problem of the relation of science to art becomes, if restated in Bacon's terms, the problem of the relation of the theoretical to the practical (*i.e.*, productive) sciences. But in terms of Aristotle, Aquinas, or Kant, the problem of the relation between the speculative and practical branches of philosophy becomes the quite different problem of how knowledge of being or nature relates to knowledge of what should be sought or ought to be done. In Hobbes's terms the problem shifts in still another direction to the consideration of the bearing of physics upon psychology, ethics, and politics.

WHEN WE COME to the 20th century, we encounter views of philosophy that both elevate it above the claims of the positive sciences and also degrade it to the role of handmaiden to empirical science. On the one hand, James confers upon philosophy the honor of discovering by reflection and analysis the fundamental wisdom to be found in the basic categories of common sense. "*Our fundamental ways of thinking about things,*" he writes, "*are discoveries of exceedingly remote ancestors, which have been able to preserve themselves throughout the experience of all subsequent time.* They form a great stage of equilibrium in the human mind's development, the stage of *common sense.*"

On the other hand, Russell and Wittgenstein use their command of mathematical logic to cast contempt, if not ridicule, upon philosophy. "The results of philosophy," writes Wittgenstein, "are the uncovering of one or another piece of plain nonsense and of bumps that the understanding has got by running its head up against the limits of language." For him, "a philosophical problem has the form: 'I don't know my way about.'" In his view, "philosophy simply puts everything before us, and neither explains nor deduces anything."

Russell denies that there is any "special

source of wisdom which is open to philosophy but not to science." Accordingly, for him, philosophy and science do not differ essentially. "The results obtained by philosophy are not radically different from those obtained from science." However, he also acknowledges that "the essential characteristic of philosophy, which makes it a study distinct from science, is *criticism*. It examines critically the principles employed in science and in daily life." Nevertheless, he counters that by saying, "the value of philosophy is, in fact, to be sought largely in its very uncertainty."

Whitehead has few kind remarks to make about modern philosophy. In his view, "modern philosophy has been ruined. It has oscillated in a complex manner between three extremes. There are the dualists, who accept matter and mind as on an equal basis, and the two varieties of monists, those who put mind inside matter, and those who put matter inside mind. But this juggling with abstractions can never overcome the inherent confusion introduced by the ascription of *misplaced concreteness* to the scientific scheme of the seventeenth century."

The three extremes mentioned above by Whitehead existed in ancient and medieval thought. Plato was a dualist, Democritus a materialist, Plotinus a spiritualist; Aristotle and Aquinas are eminent examples of philosophers who commit the fallacy of "misplaced concreteness," to use the term that was Whitehead's own essential innovation. Accordingly, one must conclude that, with few exceptions, the history of philosophy before Whitehead is a dismal story of intellectual failures.

Perhaps the worst drubbing that philosophy receives comes a little earlier than the 20th century in the writings of Nietzsche. In *Beyond Good and Evil*, in a chapter concerned with "the prejudices of philosophers," Nietzsche directs his characteristic nihilism against philosophy. "What makes one regard philosophers half mistrustfully and half mockingly is not that one again and again detects how innocent they are . . . but that they display altogether insufficient honesty, while making a mighty and virtuous noise as soon as the problem of truthfulness is even remotely touched

on." Philosophers, in his opinion, are "for the most part no better than cunning pleaders for their prejudices, which they baptize 'truths.'" Considering Nietzsche's own nihilistic skepticism about the existence of truth, his contempt for the philosophical pursuit of truth should extend to scientific investigation as well.

How, on any of the foregoing views, do speculations concerning the nature of things affect the theory of human life and society, or the practical principles by which man tries to lead a good life and organize a good society? What relation do the truths of physics and metaphysics, or the major philosophical issues in these fields, bear to the truths and issues in psychology, ethics, and politics? Or, as James

puts the question, must not any man who has a philosophy of life also have, implicitly at least, a metaphysics?

Upon the answers to such questions depends the varying esteem in which philosophy is held in the great periods of western culture. Unlike supernatural religion and empirical science, and especially when separated from them, philosophy does not promise eternal salvation or earthly prosperity. The uses of philosophy, as compared with religion and science, must somehow be assessed in the terms which, from the beginning of philosophy, are of its essence—the love of wisdom, and through it the search for a human wisdom which shall be at once speculative and practical.