

# The New Encyclopædia Britannica

Volume 24

**MACROPÆDIA** 

Knowledge in Depth

FOUNDED 1768 15 TH EDITION



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First Edition	1768-1771
Second Edition	1777-1784
Third Edition	1788-1797
Supplement	1801
Fourth Edition	1801-1809
Fifth Edition	1815
Sixth Edition	1820-1823
Supplement	1815-1824
Seventh Edition	1830-1842
Eighth Edition	1852-1860
Ninth Edition	1875-1889
Tenth Edition	1902-1903

Eleventh Edition

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Twelfth Edition

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Thirteenth Edition

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Fifteenth Edition 1984, 1985, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993 By Encyclopædia Britannica, Inc.

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Printed in U.S.A.

Library of Congress Catalog Card Number: 91-75907 International Standard Book Number: 0-85229-571-5

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## Metaphysics

etaphysics is the philosophical study whose object is to determine the real nature of things—to determine the meaning, structure, and principles of whatever is insofar as it is. Although this study is popularly conceived as referring to anything excessively subtle and highly theoretical and although it has been subjected to many criticisms, it is presented by metaphysicians as the most fundamental and most comprehensive of inquiries, inasmuch as it is concerned with reality as a whole.

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#### Nature and scope of metaphysics

#### ORIGIN OF THE TERM

Etymologically the term metaphysics is unenlightening. It means "what comes after physics"; it was the phrase used by early students of Aristotle to refer to the contents of Aristotle's treatise on what he himself called "first philosophy," and was used as the title of this treatise by Andronicus of Rhodes, one of the first of Aristotle's editors. Aristotle had distinguished two tasks for the philosopher: first, to investigate the nature and properties of what exists in the natural, or sensible, world, and second, to explore the characteristics of "Being as such" and to inquire into the character of "the substance that is free from movement," or the most real of all things, the intelligible reality on which everything in the world of nature was thought to be causally dependent. The first constituted "second philosophy" and was carried out primarily in the Aristotelian treatise now known as the Physica; the second, which Aristotle had also referred to as "theology" (because God was the unmoved mover in his system), is roughly the subject matter of his Metaphysica. Modern readers of Aristotle are inclined to take both the Physica and the Metaphysica as philosophical treatises; the distinction their titles suggest between an empirical and a conceptual inquiry has little foundation. Aristotle was not indifferent to factual material either in natural or in metaphysical philosophy, but equally he was not concerned in either case to frame theories for empirical testing. It seems clear, nevertheless, that if the two works had to be distinguished, the *Physica* would have to be described as the more empirical, just because it deals with things that are objects of the senses, what Aristotle himself called "sensible substance"; the subject matter of the *Metaphysica*, "that which is eternal, free of movement, and separately existent," is on any account more remote. It is also evident that the connection marked in the original titles is a genuine one: the inquiries about nature carried out in the *Physica* lead on naturally to the more fundamental inquiries about Being as such that are taken up in the *Metaphysica* and indeed go along with the latter to make up a single philosophical discipline.

The background to Aristotle's divisions is to be found in the thought of Plato, with whom Aristotle had many disagreements but whose basic ideas provided a framework within which much of his own thinking was conducted. Plato, following the early Greek philosopher Parmenides, who is known as the father of metaphysics, had sought to distinguish opinion, or belief, from knowledge and to assign distinct objects to each. Opinion, for Plato, was a form of apprehension that was shifting and unclear, similar to seeing things in a dream or only through their shadows; its objects were correspondingly unstable. Knowledge, by contrast, was wholly lucid; it carried its own guarantee against error, and the objects with which it was concerned were eternally what they were, and so were exempt from change and the deceptive power to appear to be what they were not. Plato called the objects of opinion phenomena, or appearances; he referred to the objects of knowledge as noumena (objects of the intelligence) or quite simply as realities. Much of the burden of his philosophical message was to call men's attentions to these contrasts and to impress them with the necessity to turn away from concern with mere phenomena to the investigation of true reality. The education of the Platonic philosopher consisted precisely in effecting this transition: he was taught to recognize the contradictions involved in appearances and to fix his gaze on the realities that lay behind them, the realities that Plato himself called Forms, or Ideas. Philosophy for Plato was thus a call to recognize the existence and overwhelming importance of a set of higher realities that ordinary men—even those, like the Sophists of the time, who professed to be enlightened-entirely ignored. That there were such realities, or at least that there was a serious case for thinking that there were, was a fundamental tenet in the discipline that later became known as metaphysics. Conversely, much of the subsequent controversy about the very possibility of metaphysics has turned on the acceptability of this tenet and on whether, if it is rejected, some alternative foundation can be discovered on which the metaphysician can stand.

#### CHARACTERIZATIONS OF METAPHYSICS

Before considering any such question, however, it is necessary to examine, without particular historical references, some ways in which actual metaphysicians have attempted to characterize their enterprise, noticing in each case the problems they have in drawing a clear line between their aims and those of the practitioners of the exact and empirical sciences. Four views will be briefly considered; they present metaphysics as: (1) an inquiry into what exists, or what really exists; (2) the science of reality, as opposed to appearance; (3) the study of the world as a whole; (4) a theory of first principles. Reflection on what is said under the different heads will quickly establish that they are not sharply separate from one another, and, indeed, individual metaphysical writers sometimes invoke more than one of these phrases when asked to say what metaphysics is—as, for example, the British Idealist F.H. Bradley does in the opening pages of his work Appearance and Reality (1893).

Appearances and realities for Plato

An inquiry into what exists. A common set of claims on behalf of metaphysics is that it is an inquiry into what exists; its business is to subject common opinion on this matter to critical scrutiny and in so doing to determine what is truly real.

Unreliability of common opinion

It can be asserted with some confidence that common opinion is certainly an unreliable guide about what exists, if indeed it can be induced to pronounce on this matter at all. Are dream objects real, in the way in which palpable realities such as chairs and trees are? Are numbers real, or should they be described as no more than abstractions? Is the height of a man a reality in the same sense in which he is a reality, or is it just an aspect of something more concrete, a mere quality that has derivative rather than substantial being and could not exist except as attributed to something else? It is easy enough to confuse the common man with questions like these and to show that any answers he gives to them tend to be ill thoughtout. It is equally difficult, however, for the metaphysician to come up with more satisfactory answers of his own. Many metaphysicians have relied, in this connection, on the internally related notions of substance, quality, and relation; they have argued that only what is substantial truly exists, although every substance has qualities and stands in relation to other substances. Thus, this tree is tall and deciduous and is precisely 50 yards north of that fence. Difficulties begin, however, as soon as examples like these are taken seriously. Assume for the moment that an individual tree—what might be called a concrete existent—qualifies for the title of substance; it is just the sort of thing that has qualities and stands in relations. Unless there were substances in this sense, no qualities could be real: the tallness of the tree would not exist unless the tree existed. The question can now be raised what the tree would be if it were deprived of all its qualities and stood in no relations. The notion of a substance in this type of metaphysics is that of a thing that exists by itself, apart from any attributes it may happen to possess; the difficulty with this notion is to know how to apply it. Any concrete thing one selects to exemplify the notion of substance turns out in practice to answer a certain description; this means in effect that it cannot be spoken of apart from its attributes. It thus emerges that substances are no more primary beings than are qualities and relations; without the former one could not have the latter, but equally without the latter one could not have the former. There are other difficulties about substance that cannot

The ultimate stuff of the universe

be explored here—e.g., whether a fence is a substance or simply wood and metal shaped in a certain way. Enough has already been said, however, to indicate the problems involved in defining the tasks of metaphysics along these lines. There is, nevertheless, an alternative way of understanding the notion of substance: not as that which is the ultimate subject of predicates but as what persists through change. The question "What is ultimately real?" is, thus, a question about the ultimate stuff of which the universe is made up. Although this second conception of substance is both clearer and more readily applicable than its predecessor, the difficulty about it from the metaphysician's point of view is that it sets him in direct rivalry with the scientist. When the early Greek philosopher Thales inquired as to what is ultimately real and came up with the surprising news that all is water, he might be taken as advancing a scientific rather than a philosophical hypothesis. Although it is true that later writers, such as Gottfried Wilhelm Leibniz, a German Rationalist philosopher and mathematician, were fully aware of the force of scientific claims in this area and, nevertheless, rejected them as metaphysically unacceptable, the fact remains that the nonphilosopher finds it difficult to understand the basis on which a Leibniz rests his case. When Leibniz said that it is monads (i.e., elementary, unextended, indivisible, spiritual substances that enter into composites) that are the true atoms of nature and not, for example, material particles, the objection can be raised as to what right he has to advance this opinion. Has he done any scientific work to justify him in setting scientific results aside with such confidence? And if he has not, why should he be taken seriously at all?

The science of ultimate reality. To answer these questions, another description of metaphysics has been proposed: that it is the science that seeks to define what is ultimately real as opposed to what is merely apparent.

The contrast between appearance and reality, however, is by no means peculiar to metaphysics. In everyday life people distinguish between the real size of the Sun and its apparent size, or again between the real colour of an object (when seen in standard conditions) and its apparent colour (nonstandard conditions). A cloud appears to consist of some white, fleecy substance, although in reality it is a concentration of drops of water. In general, men are often (though not invariably) inclined to allow that the scientist knows the real constitution of things as opposed to the surface aspects with which ordinary men are familiar. It will not suffice to define metaphysics as knowledge of reality as opposed to appearance; scientists, too, claim to know reality as opposed to appearance, and there is a general tendency to concede their claim.

It seems that there are at least three components in the metaphysical conception of reality. One characteristic, which has already been illustrated by Plato, is that reality is genuine as opposed to deceptive. The ultimate realities that the metaphysician seeks to know are precisely things as they are—simple and not variegated, exempt from change and therefore stable objects of knowledge. Plato's own assumption of this position perhaps reflects certain confusions about the knowability of things that change; one should not, however, on that ground exclude this aspect of the concept of reality from metaphysical thought in general. Ultimate reality, whatever else it is, is genuine as opposed to sham. Second, reality is original in contrast to derivative, self-dependent rather than dependent on the existence of something else. When Aristotle sought to inquire into the most real of all things, or when medieval philosophers attempted to establish the characteristics of what they called the ens realissimum ("the most real being"), or the original and perfect being, they were looking for something that, in contrast to the everyday things of this world, was truly self-contained and could accordingly be looked upon as self-caused. Likewise, the 17th-century Rationalists defined substance as that which can be explained through itself alone. Writers like René Descartes and Benedict de Spinoza were convinced that it was the task of the metaphysician to seek for and characterize substance understood in this sense; the more mundane substances with which physical scientists were concerned were, in their opinion, only marginally relevant in this inquiry. Third, and perhaps most important, reality for the metaphysician is intelligible as opposed to opaque. Appearances are not only deceptive and derivative, they also make no sense when taken at their own level. To arrive at what is ultimately real is to produce an account of the facts that does them full justice. The assumption is, of course, that one cannot explain things satisfactorily if one remains within the world of common sense, or even if one advances from that world to embrace the concepts of science. One or the other of these levels of explanation may suffice to produce a sort of local sense that is enough for practical purposes or that forms an adequate basis on which to make predictions. Practical reliability of this kind, however, is very different from theoretical satisfaction; the task of the metaphysician is to challenge all assumptions and finally arrive at an account of the nature of things that is fully coherent and fully thought-out.

It should be obvious that, to establish his right to pronounce on what is ultimately real in the sense analyzed, the metaphysician has a tremendous amount to do. He must begin by giving colour to his claim that everyday ways of thinking will not suffice for a full and coherent description of what falls within experience, thus arguing that appearances are unreal—although not therefore nonexistent-because they are unstable and unintelligible. This involves a challenge to the final acceptability of such wellworn ideas as time and space, thing and attribute, change and process—a challenge that metaphysicians have not hesitated to make, even though it has been treated with skepticism both by ordinary men and by some of their fellow philosophers (e.g., G.E. Moore, a 20th-century British

Components in the metaphysical conception of reality

The task of the metaphysician

thinker who has greatly influenced modern Analytic philosophy). Second, granted that there are contradictions or incoherences in the thought of common sense, the metaphysician must go on to maintain that they cannot be resolved by deserting common sense for science. He will not deny that the concepts of science are in many respects different from those of everyday thought; to take one aspect only, they are altogether more precise and sharply defined. They permit the scientist to introduce into his descriptions a theoretical content that is lacking at the everyday level and in so doing to unify and render intelligible aspects of the world that seem opaque when considered singly. The metaphysician will argue, however, that this desirable result is purchased at a certain price: by ignoring certain appearances altogether. The scientist, in this way of thinking, does not offer a truer description of the phenomena of which ordinary thought could make no sense but merely gives a connected description of a selected set of phenomena. The world of the scientist, restricted as it is to what can be dealt with in quantitative terms, is a poor thing in comparison with the rich if untidy world of everyday life. Alternatively, the metaphysician must try to show that scientific concepts are like the concepts of common sense in being ultimately incoherent. The premises or presuppositions that the scientist accepts contain unclarities that cannot be resolved, although they are not so serious as to prevent his achieving results that are practically dependable. Many ingenious arguments on these lines have been produced by philosophers, by no means all of whom could be said to be incapable of a true understanding of the theories they were criticizing. (Leibniz, for example, was a physicist of distinction as well as a mathematician of genius; G.W.F. Hegel, a 19th-century German Idealist, had an unusual knowledge of contemporary scientific work; and Alfred North Whitehead, a pioneer of 20th-century metaphysics in the Anglo-Saxon world, was a professor of applied mathematics, and his system developed from physics and contained a wealth of biological ideas.) The fact remains, nevertheless, that few if any practicing scientists have been seriously troubled by such arguments.

Even if the metaphysician were thus able to make good the negative side of his case, he would still face the formidable difficulty of establishing that there is something answering to his conception of what is ultimately real and of identifying it. The notion of an original being, totally self-contained and totally self-intelligible, may not itself be coherent, as the 18th-century British philosopher David Hume and others have argued; alternatively, there may be special difficulties in saying to what it applies. The fact that different metaphysicians have given widely different accounts of what is ultimately real is certainly suspicious. Some have wanted to say that there is a plurality of ultimately real things, others that there is only one; some have argued that what is truly real must be utterly transcendent of the things of this world and occupy a supersensible realm accessible only to the pure intellect, while others have thought of ultimate reality as immanent in experience (the Hegelian Absolute, for example, is not a special sort of existent, but the world as a whole understood in a certain way). That metaphysical inquiry should issue in definitive doctrine, as so many of those who engaged in it said that it would, is in these circumstances altogether too much to hope for.

The science of the world as a whole. Another way in which metaphysicians have sought to define their discipline is by saying that it has to do with the world as a whole.

The implications of this phrase are not immediately obvious. Clearly, a contrast is intended in the first place with the various departmental sciences, each of which selects a portion or aspect of reality for study and confines itself to that. No geologist or mathematician would claim that his study is absolutely comprehensive; each would concede that there are many aspects of the world that he leaves out, even though he covers everything that is relevant to his special point of view. By contrast, it might be supposed that the metaphysician is merely to coordinate the results of the special sciences. There is clearly a need for the coor-

dination of scientific results because scientific research has become increasingly specialized and departmentalized; individual scientific workers need to be made aware of what is going on in other fields, sometimes because these fields impinge on their own, sometimes because results obtained there have wider implications of which they need to take account. One can scarcely see metaphysicians, however, or indeed philosophers generally, performing this function of intellectual contact man in a satisfactory fashion. It might then be supposed that their concern with the world as a whole is to be interpreted as a summing up and synthesizing of the results of the particular sciences. Plato spoke of the philosopher as taking a synoptic view, and there is often talk about the need to see things in the round and avoid the narrowness of the average specialist, who, it is said, knows more and more about less and less. If, however, it is a question of looking at scientific results from a wider point of view and so of producing what might be called a scientific picture of the world, the person best qualified for the job is not any philosopher but rather a scientist of large mind and wide interests. Metaphysics cannot be satisfactorily understood as an account of the world as a whole if that description suggests that the metaphysician is a sort of superscientist, unlimited in his curiosity and gifted with a capacity for putting together other people's findings with a skill and imagination that none of them individually commands. Only a scientist could hope to become such a superscientist.

More hope for the metaphysician can be found, perhaps, along the following lines. People want to know not only what the scientist makes of the world but also what significance to assign to his account. People experience the world at different levels and in different capacities: they are not only investigators but also agents; they have a moral and a legal, an aesthetic and a religious life in addition to their scientific life. Man is a many-sided being; he needs to understand the universe in the light of his different activities and experiences. There are philosophers who appear to find no problem here; they argue that there can be no possibility of, say, a moral or a religious vision of the world that rivals the scientific vision. In this view, morals and religion are matters of practice, not of theory; they do not rival science but only complement it. This neutralist attitude, however, finds little general favour; for most thinking people find it necessary to choose whether to go all the way with science, at the cost of abandoning religion and even morals, or to stick to a religious or moral world outlook even if it means treating scientific claims with some reserve. The practice of the moral life is often believed to proceed on assumptions that can hardly be accepted if science is taken to have the last word about what is true. Accordingly, it becomes necessary to produce some rational assessment of the truth claims of the different forms of experience, to try to think out a scheme in which justice is done to them all. Many familiar systems of metaphysics profess to do just that; among others there are Materialism, which favours the claims of science; Idealism, which sees deeper truth in religion and the moral life; and the peculiar dualism of the 18th-century German philosopher Immanuel Kant, which holds that science gives the truth about phenomena, while reserving a noumenal, or supersensible, sphere for moral agency.

This conception of metaphysics as offering an account of the world or, as is more often said, of experience as a whole, accords more obviously with the position of those who see ultimate reality as immanent, or inherent in what is immediately known, than of those who take it to be transcendent, or beyond the limits of ordinary experience. It is possible, in fact, to subscribe to the legitimacy of metaphysics as so understood without postulating the existence of any special entities known only to the metaphysician—a claim that plain men have often taken to connect metaphysics with the occult. This is not to say, of course, that metaphysical problems admit of easy solutions when understood along these lines. There is a variety of widely different ways of taking the world as a whole: depending on which aspect or aspects of experience the individual metaphysician finds especially significant; each claims to be comprehensive and to confute the claims

Metaphysics as a unifiaccount of the world First

principles

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truths

of its rivals, yet none has succeeded in establishing itself as the obviously correct account. Even systems that are widely condemned as impossible, such as Materialism, turn out in practice to command constantly renewed support as new discoveries in the sciences suggest new ways of dealing with old difficulties. A cynic might take such facts as meaning that people subscribe to theories of this sort more as a matter of emotional than of rational conviction; metaphysics, as Bradley remarked with surprising frankness, consists in the finding of bad reasons for what one believes upon instinct.

The science of first principles. Another phrase used by Bradley in his preliminary discussion of metaphysics is "the study of first principles," or ultimate, irrefutable truths.

Metaphysics could be said to provide a theory of first principles if it furnished men with a set of concepts in the light of which they could arrive at the connected account of experience as a whole just spoken of, and the two descriptions of the subject would thus be two sides of a single coin. The idea that metaphysics has to do with first principles, however, has wider implications.

The term "first principles" is a translation of the Greek word archai. An arche is something from which an argument proceeds—it can be either a primary premise or an ultimate presupposition. Plato, in a famous passage in Politeia (The Republic), contrasted two different attitudes to archai: namely that of the mathematician, who lays down or hypothesizes certain things as being true and then proceeds to deduce their consequences without further examining their validity; and that of the dialectician, who proceeds backward, not forward, from his primary premises and then seeks to ground them in an arche that is not hypothesized at all. Unfortunately, no concrete details exist of the way in which Plato himself thought this program could be carried out; instead he spoke of it only in the most general terms. The suggestion, nevertheless, that metaphysics is superior to any other intellectual discipline in having a fully critical attitude toward its first principles is one that still continues to be made, and it needs some

As regards mathematics, for example, it might be said that mathematicians could be uncritical about the first principles of their science in the following ways: (1) They might take as self-evidently true or universally applicable some axiom or primary premise that turned out later not to possess this property. (2) They might assume among their first principles certain propositions about existence-to the effect that only certain kinds of things could be proper objects of mathematical inquiry (rational as opposed to irrational numbers, for example)—and time might indeed reveal that the assumption was inappropriate. The remedy for both sorts of error, however, is to be found within the realm of mathematics itself; the development of the discipline has consisted precisely in eliminating mistakes of this kind. It is not clear even that the discovery and removal of antinomies in the foundations of mathematics is work for the metaphysician, although philosophically minded persons like Gottlob Frege, a German mathematician and logician, and Bertrand Russell, perhaps the best known English philosopher of the 20th century, have been much concerned with them. The situation is not fundamentally different when the empirical sciences are considered. Admittedly, the exponents of these sciences give more hostages to fortune insofar as they have to assume from the first the general correctness of the results of other disciplines; there can be no question of their checking on these for themselves. Mathematicians, too, begin by assuming the validity of common argument forms without making any serious attempt to validate them, and there is nothing seriously wrong with their proceeding in this manner. If confidence in bad logic has sometimes been responsible for holding up mathematical advance, bolder mathematicians have always known in practice that the right thing to do is to let the argument take them wherever it will on strictly mathematical lines, leaving it to logicians to recognize the fact and adjust their theory at their convenience.

It thus seems that the assertion that a special science like

mathematics is uncritical about its archai is false; there is a sense in which mathematicians are constantly strengthening their basic premises. As regards the corresponding claim about metaphysics, it has at one time or another been widely believed (1) that it is the business of metaphysics to justify the ultimate assumptions of the sciences. and (2) that in metaphysics alone there are no unjustified assumptions. Concerning (1), the question that needs to be asked is how the justification is supposed to take place. It has been argued that the metaphysician might, on one interpretation of his function, be said to offer some defense of science generally by placing it in relation to other forms of experience. To do this, however, is not to justify any particular scientific assumptions. In point of fact, particular scientific assumptions get their justification, if anywhere, when a move is made from a narrower to a more comprehensive science; what is assumed in geology, for example, may be proved in physics. But this, of course, has nothing to do with metaphysics. The difficulty with (2) is that of knowing how any intellectual activity, however carefully conducted, could be free of basic assumptions. Some metaphysicians (such as Bradley and his Scottish predecessor J.F. Ferrier) have claimed that there is a difference between their discipline and others insofar as metaphysical propositions alone are self-reinstating. For example, the Cartesian proposition cogito, ergo sum ("I think, therefore I am") is self-reinstating: deny that you think, and in so doing you think; deny that you exist, and the very fact gives proof of your existence. Even if it could be made out that propositions of this kind are peculiar to metaphysics, however, it would not follow that everything in metaphysics has this character. The truth is, rather, that no paradox is involved in denving most fundamental metaphysical claims, such as the assertion of the Materialist that there is nothing that cannot be satisfactorily explained in material terms or the corresponding principle of Aristotle that there is nothing that does not serve some purpose.

The view that metaphysics, or indeed philosophy generally, is uniquely self-critical is among the myths of modern thought. Philosophers rely on the results of other disciplines just as other people do; they do not pause to demonstrate the legitimacy of the principles of simple arithmetic before entering on calculations in the course of their work, nor do they refrain from employing the reductio ad absurdum type of refutation (i.e., showing an absurdity to which a proposition leads when carried to its logical conclusion) until they have assured themselves that this is a valid way of confuting an opponent. Even in their own field they tend, like painters, to work within traditions set by great masters rather than to think everything out from scratch for themselves. That philosophy in practice is not the fully self-critical activity its exponents claim it to be is shown nowhere more clearly than in the reception that philosophers give to theories that are unfashionable; they more often subject them to conventional abuse than to patient critical examination. It is, nevertheless, from the conviction that philosophy, and especially metaphysical philosophy, operates without unjustified assumptions that current claims about the superiority of this branch of thinking derive their force. This conviction connects with the views already mentioned, that metaphysics is the science of first principles and that the principles in question are ineluctable in the sense that they are operative in their

#### METAPHYSICS AND OTHER BRANCHES OF PHILOSOPHY

It may be useful at this point to consider the relations of metaphysics to other parts of philosophy. A strong tradition, derided by Kant, asserted that metaphysics was the queen of the sciences, including the philosophical sciences. The idea presumably was that those who worked within fields such as logic and ethics, as well as physicists and biologists, proceeded on assumptions that in the last resort had to be approved or corrected by the metaphysician. Logic could be conceived as a special study complete in itself only if the logician were allowed to postulate a correspondence between the neat and tidy world of propositions, which was the immediate object

Metaphysicians as self-critical

The view of meta-physics as the queen of the sciences

of his study, and the world existing in fact; metaphysics might and sometimes did challenge the propriety of this postulate. Similarly, ethics, like law, could get nowhere without the assumption that the individual agent is a selfcontained unit answerable in general terms for what he does; metaphysics had the duty of subjecting this assumption to critical examination. As a result of such claims it was widely believed that any results obtained by logicians or ethicists must at best be treated as provisional; followers of Hegel, who advanced these claims with passionate conviction, were inclined in consequence to regard logic and ethics alike as minor branches of philosophy. It has been a feature of 20th-century philosophical thought, especially in Britain and the United States, to dispute these Hegelian contentions and argue for the autonomy of ethics and logic; that is, for their independence of metaphysics. Thus, formal logicians of the school of Frege and Russell were apt to claim that the principles of logic applied unequivocally to all thinking whatsoever; there could be no question of their having to await confirmation, still less correction, from the metaphysician. If metaphysical arguments suggested that fundamental laws of logic such as the principle of noncontradiction—that a statement and its contradictory cannot both be true-might not be in order, the only conclusion to draw was that such arguments must be confused: without observation of the laws of logic there could be no coherent thinking of any sort.

Similarly, G.E. Moore, in a celebrated section of his Principia Ethica (1903), tried to show that statements like "This is good" are sui generis and cannot be reduced to statements of either natural or metaphysical fact; the Idealist belief that ethics ultimately depends on metaphysics rested on a delusion. Moore perhaps failed to see the force of the Idealist challenge to the individualist assumptions on which much ethical thinking proceeds, and he did not note that, in one respect at least, ethical results can be dependent on those of metaphysics: if metaphysics shows that the world is other than it is initially taken to be, conclusions about what to do must be altered accordingly. Again, the reaction among logicians to Hegelian attempts to merge logic into metaphysics certainly went too far. There is a genuine philosophical problem about the relation between the world of logic and the world of fact, and it cannot be solved by simply repeating that logic is an autonomous discipline whose principles deserve respect in themselves. None of this, however, shows that metaphysics is the fundamental philosophical discipline, the branch of philosophy that has the last word about what goes on in all other parts of the subject.

#### METAPHYSICS AND ANALYSIS

Modern British and American philosophers commonly describe themselves as engaged in philosophical analysis, as opposed to metaphysics. The interests of a metaphysician, according to this view, are predominantly speculative; he wants to reveal hitherto unknown facts about the world and on that basis to construct a theory about the world as a whole. In so doing he is necessarily engaged in activities that rival those of the scientist, with the important difference that scientific theories can be brought to the test of experience, whereas metaphysical theories cannot. Eschewing this conception of philosophy as impossible, the critic of metaphysics believes that philosophy should confine itself to the analysis of concepts, which is a strictly second-order activity independent of science and which need involve no metaphysical commitment.

Analysis in philosophy The notion of analysis in philosophy is far from clear. Analysis on any account is meant to result in clarification, but it is not evident how this result is to be achieved. For some, analysis involves the substitution for the concept under examination of some other concept that is recognizably like it (as Gilbert Ryle, an English Analyst, elucidated the concept of mind by replacing it with the notion of "a person behaving"); for others, analysis involves the substitution of synonym for synonym. If the latter understanding of analysis is required, as in Moore's classic example of the analysis of brother as male sibling, not much enlightenment is likely to ensue. If, however, the philosopher is permitted to engage in what is some-

times pejoratively described as "reductive analysis," he will produce interest at the cost of reintroducing speculation. Ryle's Concept of Mind (1949) is a challenging book just because it advances a thesis of real metaphysical importance—that one can say everything one needs to say about minds without postulating mental substance.

A further aspect of the situation that deserves mention is this. If it is the case, as is often claimed, that analysis can be practiced properly only when the analyst has no metaphysical presuppositions, by what means does he select concepts for analysis? Would it not be appropriate for him, in these circumstances, to take any concept of reasonable generality as a suitable subject on which to practice his art? It turns out, in fact, however, that the range of concepts commonly recognized as philosophical is more limited than that, and that those concepts to which Analytic philosophers give their attention are chosen because of their wider philosophical bearings. Thus, recent philosophers have paid particular attention to the concept of knowledge not just because it is a notion whose analysis has long proved difficult but also because on one account at least it involves an immediately experienced mental act-something that many Analysts would like to proscribe as mythical. Similarly, the celebrated analysis of the idea of causality put forward by David Hume was not undertaken out of idle curiosity but with a wider purpose in mind: to undermine both the Aristotelian and the Cartesian views of the world and to substitute for them an atomism of immediate appearances in which all objects were "loose and separate"—that is, logically independent one of another. The insight into the constitution of nature promised in different ways by Aristotle and Descartes was an illusion, the truth being that scientific advance serves only to "stave off our ignorance a little." What Hume said about causation connects internally with his views about what exists. Despite his polemic against books of "divinity and school metaphysics," he had a metaphysics of his own to recommend.

The truth is that metaphysics and analysis are not separate in the way modern Analytic philosophers pretend. The speculative philosophers of the past were certainly not averse to analysis: witness the splendid discussion of the concept of knowledge in Plato's Theaetetus, or, for a more recent example, Bradley's account of the meanings of "self." The legend that a metaphysical philosopher has his eye so firmly set on higher things that he is entirely careless of the conceptual structure he seeks to recommend is absolutely without foundation. A metaphysical philosopher is a philosopher after all: argument and the passion for clarification are in his blood. Although some contemporary philosophers profess to undertake analysis entirely for its own sake and without explicit metaphysical motivation, it may be doubted if their claim is capable of being sustained. The "logical analysis" practiced by Russell in the early part of the 20th century was not metaphysically neutral, nor was the analysis of the Logical Positivists, who recommended a strongly scientific view of the world. Some current analytic work is motivated less by the desire to forward an overall theory than by a wish to destroy a prevailing or previously held theory that is considered objectionable. To seek to overthrow a metaphysical theory, however, is itself to engage in metaphysics—not very interesting metaphysics, perhaps, but metaphysics all the same.

It may be added, as a historical note, that the Rationalist philosophers of the 17th and 18th centuries, who emphasized the predominant role of reason in the construction of a system of knowledge, believed that the philosopher's task fell into two parts. He must first break down complex concepts into their simple parts; this was a matter of analysis. Then he must proceed to show how knowledge of these simples would serve to explain the detailed constitution of things; this would involve synthesis. That there are deep obscurities in this program—e.g., whether it is a matter of analyzing concepts or getting down to the simplest elements of things—is less important in the present context than that analysis and synthesis were thus taken to be complementary. The classical statement of this point of view is to be found in Descartes's Discours de la

Historical use of analysis b metaphysicians

méthode (1637; Discourse on Method), with the corresponding passages in the Regulae ad Directionem Ingenii (published posthumously 1701; Rules for the Direction of the Mind). That the idea persisted well into the 18th century is evidenced by the remarks made by Kant in his essay Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral (1764; Inquiry into the Distinctness of the Principles of Natural Theology and Morals), in which he said that metaphysics was not yet in a position to pass beyond the stage of analysis to that of synthesis. He did not mean that for the time being philosophy must remain entirely nonmetaphysical, in the way some moderns suppose it can, but rather that it needs to go on elaborating a conceptual scheme, which, however, cannot be used constructively until it is complete. Actually, Kant belied his own professions at the time insofar as he thought himself in possession of a definitive proof of God's existence, which he explained in his essay Der einzig mögliche Beweisgrund zu einer Demonstration des Daseyns Gottes (1763; "The Only Possible Ground for a Demonstration of the Existence of God"). This, however, only illustrates the not very surprising fact that philosophers are often less clear about the nature of their own activities than they think.

#### Problems in metaphysics

To give a comprehensive account of the main problems of metaphysics in the space of a few pages is clearly quite impossible. What follows is necessarily highly selective and to that extent misleading; it, nevertheless, attempts to offer an introduction to metaphysical thinking itself rather than reflection on the nature of metaphysics.

#### THE EXISTENCE OF FORMS, CATEGORIES, AND PARTICULARS

Forms. The early Greek philosophers asked the question ti to on, "What is existent?" or "What is really there?" They originally interpreted this as a question about the stuff out of which things were ultimately made, but a new twist was given to the inquiry when Pythagoras, in the late 6th century BC, arrived at the answer that what was really there was number. Pythagoras conceived what is there in terms not of matter but of intelligible structure; it was the latter that gave each type of thing its distinctive character and made it what it was. The idea that structure could be understood in numerical terms was probably suggested to Pythagoras by his discovery that there are exact correlations between the lengths of the strings of a lyre and the notes they produce. By a bold extrapolation he seems to have surmised that what held in this case must hold in all cases.

The Pythagorean theory that what is really there is number is the direct ancestor of the Platonic theory that what is really there is Forms, or Ideas (eidē, or ideai). Plato's Forms were also intelligible structures and not material elements, but they differed from Pythagorean numbers by being conceived of as separately existent. There was, as Plato put it, a "place accessible to the intelligence," which was the place, or realm, of Forms. Each Form was a genuine existent, in the sense of being precisely what it pretended to be; the Form of Beauty, for example, was beautiful through and through. By contrast, the many particular things that partook of or resembled what was truly beautiful were one and all defective. However beautiful any one of them might be, it was also in another respect lacking in beauty. It turned out to possess contradictory characteristics, and as such could never be identified with true reality.

Plato had taken over from his predecessor Heracleitus, who flourished at about the beginning of the 5th century BC, the doctrine that the world of sensible things is a world of things in constant flux; as he put it in the Theaetetus, nothing is in this world because everything is in a state of becoming something else. Forms were needed to provide stable objects for knowledge as well as to answer the question of what is ultimately real. Although Plato played down the reality of sensible things, making them mere objects of opinion and describing them as falling between what is and what is not, he did not deny their existence. It was not his thesis that Forms alone exist. On the contrary, he appears to have held that God (who was certainly not a Form) had somehow fashioned the physical world on the model of the Forms, using space as his material. This is the description that is given in the Timaeus, in a passage that Plato perhaps meant his readers not to take quite literally but that stated his view as plainly as he thought it could be stated. In this passage God appears in the guise of the "Demiurge," although he is referred to freely in other Platonic dialogues. Souls were also distinct from Forms in Plato's thought.

In the discussions that developed around the theory of Forms, many difficulties were revealed, most of them familiar to Plato himself. The question of how the one Form was supposed to relate to the many particulars that participated in or resembled it was nowhere satisfactorily answered. The difficulty turned on how the Form was to be thought of at once as an existent and as a structure. Plato seemed on occasion to think of it as a structure hypostatized, or given real existence. This thesis led to the antinomies exposed in the "third man" argument. According to this theory, particular men were alleged to be human because of their relationship to "Man himself"; i.e., the Form of man. But whence did the latter derive its nature? Must there not be a second Form to explain what the first Form and its particulars have in common, and will not this generate an infinite regress? Again, the problem of the precise population of the world of Forms never got a definitive solution, perhaps because the theory of Forms was put to more than one purpose. Sometimes it was said that there is a Form corresponding to every general word, but elsewhere the theory was that what is merely negative (e.g., lifeless) has no need of a special Form, nor does what is manufactured. There is even a question as to whether trivial everyday things such as mud and hair and dirt have Forms, though it is agreed that there is a Form of man.

The problems just referred to were stated trenchantly in Plato's dialogue the *Parmenides*; the discussion there ends with the statement that the Forms must be retained if an account of intelligible discourse is to be given, but no indication is offered as to how the theory is to be refurbished. Some Platonic scholars have inferred that Plato virtually gave it up, but such evidence as there is suggests that he only transformed it into a theory of Form-numbers, more openly Pythagorean than the earlier version. There are many references in Aristotle to this theory of Formnumbers, but no writing of Plato's own on the subject has survived, and it is virtually impossible at this late stage to say what this theory really comprised.

One further feature of the theory of Forms must be mentioned here: the view that there is a supremely important Form, the Form of goodness, or of the Good, which somehow determines the contents of the world of Forms and brings order into it. In a celebrated but brief and tantalizing passage in Politeia, the Form of the Good is spoken of as being to the intelligible realm what the sun is to the visible realm; just as the sun makes living things grow and renders them visible, so the Good is responsible for the existence and intelligibility of Forms, though it is itself "on the other side of Being." This passage had a tremendous historical influence on the Neoplatonists, who saw it as anticipating the ultimate ineffable realitythe One, from which everything describable was in some way an emanation-in which they came to believe. It seems possible, however, that Plato had no such mystical thoughts in mind but simply wanted to say that the world of Forms is ordered through and through, everything in it being there for a purpose. The Form of Good is, in fact, the counterpart of the nous (Mind) of Anaxagoras, another of Plato's predecessors, which was supposed to arrange everything for the best.

Categories and universals. The most famous critic of Plato's theory of Forms was Aristotle, who devised his doctrine of categories largely to counter it. According to this doctrine, "being is spoken of in many ways": one can say that there are such things as individual horses, but one can also say that there is such a thing as being a horse, or as being upside down. Expressions can be classified

Aristotelian doctrine

Platonic theory

under various heads: predicates signify substances (e.g., "man" or "horse"), qualities (e.g., "white"), relations (e.g., "greater"), quantities (e.g., "three yards long"), time (e.g., "last year"), and so on-sometimes Aristotle listed ten categories, sometimes only eight. The kind of being that any predicate possesses, however, is derivative in comparison with the being of an individual substance, a particular man or a particular horse. It is such things that exist in the primary sense, and it is upon their existence that the existence of other types of being depends. Or, to put the point in not quite Aristotelian terms, primary substances are the only concrete existents; Socrates, the bearer of a proper name, exists in a way in which humanity or whiteness or being greater do not. The latter are really no more than abstractions, and nothing but confusion can arise from neglecting that fact.

Mention has already been made of the difficulties into which this doctrine led when it came to describing primary substances; it appeared that these entities could not be characterized but only named or pointed to, a conclusion accepted much later by Ludwig Wittgenstein, a 20thcentury philosopher, in his Tractatus Logico-Philosophicus and by Russell in his lectures on logical atomism. These difficulties, however, were not seen at the time the theory was promulgated, and it is more important here to emphasize the fact that it undermined any doctrine of the Platonic type. To argue that Forms, or numbers, alone are real is to argue for the reality of abstractions; to put the point succinctly, beauty exists only so long as something is beautiful, and that something must be a concrete individual. Or if this is not quite true (for, after all, it could be said that there is such a thing as having a million sides even if nothing in fact has a million sides), concrete existence must precede abstract existence in some cases at least: the "x" in "x is red" must sometimes be replaceable by an actual rather than a merely possible entity.

The problem of universals

A prominent subject of philosophical discussion in the Middle Ages was what came to be known as the problem of universals, which concerned the ontological status, or type of existence, to be assigned to the referents of general words. One of Plato's critics had said, "I see particular horses, but not horseness"; and Plato had answered, "That is because you have eyes but no intelligence." There can be no doubt that Plato thought that horseness, the Form of horse, or Horse itself, to use his own expression, was something that existed separately; it could be discerned not by the bodily eyes but by the eye of the soul. The view that besides individual horses there also exists the Form of horse was known in the Middle Ages as Realism. Aristotle was also alleged to be a Realist, because he too thought that Forms were really there, although only as embodied in particular instances. More skeptical philosophers denied the reality of universals altogether, some identifying them with thoughts (conceptualists), others with mere names (nominalists).

The dispute about universals was in fact very confused. At least two quite separate issues were involved. First of all, there was the question about the status to be assigned to whatever it was that predicates referred to; this question seemed urgent just because, for example, geometricians were able to discuss the properties of the triangle or the circle. What and where were the triangle and the circle? In fact, the Aristotelian doctrine of categories had already indicated that the being of any predicate was necessarily different from that of primary substances; the circle did not and could not exist as this man or this horse did. When Aristotle is described as a Realist in the dispute about universals, the description is very misleading. In one sense he did not believe that universals are real at all; in another sense, however, he did, and this is where the second issue arose. Some people who denied the reality of universals wanted to say that all classification is artificial; the descriptions men give of things depend upon their interests as much as upon what is really there. Aristotle, by contrast, believed in a doctrine of natural kinds; he thought that every particular horse, for example, embodied the form or objective essence of horse, which was accordingly a genuine, if abstract, constituent of the world. The question of the extent to which classification is artificial is clearly quite different from that of the status of universals; it remains to be answered even if the latter problem is dismissed, as it is by modern philosophers who say that only proper names and individuating phrases have referents; general words do not. These differences, however, were not clearly seen either in the Middle Ages or during the 17th century, when the whole question was discussed at length by philosophers such as Thomas Hobbes and John Locke.

Basic particulars. In discussions of the problem of universals, it was frequently claimed, especially by nominalists, that only particulars exist. The notion of a particular is in many respects unclear. Strictly speaking, the terms particular and universal are correlatives; a particular is an instance of universal (for example, this pain, that noise). It would seem from this that particulars and individuals should be the same, but there are writers who distinguish them. Bradley, in his Principles of Logic (1883), treated particulars as mere momentary instantiations of universals and contrasted them with individuals as continuants possessing internal diversity. An individual can be not merely identified but also re-identified; because it lasts through time, it may possess incompatible attributes at different periods of its history. A particular, on the other hand, is nothing but an instantiation of an attribute and as such must possess that attribute if it is to be anything. Similarly, a particular can be met with once, but not again; as time moves on, it passes out of existence and is replaced by another particular that may resemble it but is not literally identical with it.

If particulars and individuals are thus distinguished, it is by no means clear that only particulars exist, or indeed that they exist at all; it could be that they are no more than abstract aspects of genuinely concrete entities such as persons or material things. But there are arguments on the other side, advanced in a variety of forms by David Hume and Bertrand Russell. Hume believed that the ultimate constituents of the world were either impressions or their fainter copies, ideas; both were species of perceptions. Impressions he defined as "internal and perishing existences"; they were of various kinds, embracing feelings as well as such things as experienced colours and smells, but all were at best extremely short-lived. Impressions arose in human consciousness from unknown causes; their existence could not, however, be denied. By contrast, the existence of continuing and independent material objects and of continuing minds was extremely precarious; analysis showed both to be no more than bundles of perceptions, united by certain relations, and Hume more than once referred to them as "fictions," although it turned out on examination that they were not fictions in the way ghosts are. Hume's reasons for advancing these views were primarily epistemological; he thought that statements about continuants were all open to doubt, although statements about the contents of immediate experience could not be challenged. When it was a question of what really existed, the only sure answer was items in consciousness—namely, impressions and ideas.

Russell, who was generally sympathetic to this answer, added another argument derived from logic: proper names, he said, were names of particulars, which must accordingly exist. Ordinary proper names (such as "Socrates") had other functions than to denote, but logically proper names ("this" was Russell's example) served simply to pick out objects of immediate acquaintance. Russell was apparently unabashed by the consequence that such objects would be both private to the experience of particular persons and of very brief duration; he thought his doctrine of "logical constructions," which allowed for "inferred entities" on the basis of what is immediately certain, would provide the publicity and continuity necessary to do justice to actual experience. These assumptions, however, have met with serious criticism. P.F. Strawson, a British philosopher whose thought centres on the analysis of the structure of ordinary language, especially in his Individuals: An Essay in Descriptive Metaphysics (1959), not only attacked Russell's account of proper names but argued that experience demands a framework of basic particulars that are not Russell's momentary private objects but continuing

Hume's theory of partic-

Russell's theory of particulars

public existents-in fact, individuals in the terminology explained above. If experience consisted of nothing but sounds, the minimum prerequisite of intelligibility would be that there should be a continuing master sound, an analogue in this medium of continuing material substance in the material order. Without such basic particulars as continuing material things, identification and reidentification would be impossible. Strawson conceded that persons as well as things were genuine continuants, but maintained all the same that the hypothesis that reality might consist of nothing but minds was quite untenable. Minds are no more than aspects of persons, and persons have bodies as well as minds. Strawson agreed that disembodied existence was logically possible, but added that such existence would make no sense except as a survival of embodied existence in a common public world.

If this is correct, what exists cannot consist, as Hume supposed, of momentary items but must rather take the form of substances in the Aristotelian sense. These act as basic particulars in the actual intellectual scheme men adopt. Strawson, however, was not content merely to assert this fact; he wanted to argue that things must be like this if reference and description in their familiar form are to be possible at all. His main theory, which plainly owes a debt to Kant as well as to Wittgenstein, was worked out with primary reference to the physical world. It would be interesting to know if an examination of social reality would yield comparable results: whether individual persons or something larger-continuing societies or institutionsshould be taken as basic particulars in that sphere. Many philosophers assert dogmatically that a society is nothing but an aggregate of its individual members. Nevertheless, men are members of society in virtue of their performance of a number of social roles, and role itself is a concept that makes sense only if the notion of society is presupposed. In one sense, a society is nothing apart from its members; remove them, and it would disappear. Equally, however, the members themselves are what they are because of their various roles; it is arguable that they would be nothing apart from their social relations. Hence, the force of Bradley's remark is evident, namely, that "the 'individual' apart from the community is not anything real."

It remains to add here that a number of philosophers have tried to argue that the basic items in reality should be described not as substances but in some other terms. Russell at one stage in his career spoke of the world as consisting of events; his former colleague A.N. Whitehead made the notion of process central in his metaphysics. Developments in modern physics undoubtedly lend a certain plausibility to these and similar views. Yet it remains difficult to understand what an event could be in which nothing was concerned, or how there could be a process in which nothing was in process. Event and process, in fact, are expressions that belong to derivative categories in the general Aristotelian scheme; like all other categories, they depend on the category of substance. If the latter is removed, as these metaphysicians propose to remove it, it is hard to know what is left.

#### THE EXISTENCE OF GOD

Perhaps the most celebrated issue in classical metaphysics concerned the existence of God. God in this connection is the name of "the perfect Being" or "the most real of all things"; the question is whether it is necessary to recognize the existence of such a being as well as of things that either are or might be objects of everyday experience. A number of famous arguments have been advanced from the time of the Greeks in favour of the thesis that such a recognition is necessary. The neatest and most ingenious was the a priori argument of St. Anselm in the 11th century, who said that "that than which nothing greater can be conceived" must exist in fact as well as in thought, for if it existed only in thought and not in fact, something greater than it could be conceived, namely the same thing existing in fact. God necessarily exists, because the idea of God is the idea of that than which nothing greater can be conceived. This is the argument later known as the ontological proof. Relatively few philosophical theologians, either in the Middle Ages or later, could bring themselves to accept this bold piece of reasoning (although Descartes, Spinoza, Leibniz, and Hegel all accepted it in principle); most preferred to ground their case for God's existence on premises that claimed to be empirical. Thus, St. Thomas Aquinas, perhaps the most influential Scholastic philosopher, in the 13th century argued that to explain the fact of motion in the world, the existence of a prime mover must be presupposed; that to account for contingent or dependent being the existence of something that is necessary or self-contained must be presumed; that to see why the world is orderly and why the different things in it fit together harmoniously, a situation that might not have obtained, a Creator who fashioned it on these lines must be postulated-adding in each case "and this all men call 'God'." These are versions of the first cause argument and the argument from design, which were to figure prominently in the thinking of later theistically inclined metaphysicians.

The first cause argument should, perhaps, be examined in somewhat greater detail, because it both has an immediate plausibility and lies at the basis of many different kinds of metaphysical systems (that of Hegel, for example, as well as that of Aquinas). The argument begins with the innocent-looking statement that something contingent exists; it may be some particular thing, such as oneself, or it may be the world in general (thus, the description of the proof as being a contingentia mundi, or "from the contingency of the world"). In describing oneself or the world as contingent, one means only that the thing in question does not exist through itself alone; it owes its being to the activity of some other thing, as a person owes his being to his parents. Contingent things are not self-complete; they each demand the existence of something else if they are to be explained. Thus, the move is made from contingent to necessary being; it is felt that contingent things, of whatever order, cannot be endlessly dependent on other contingent things but must presuppose a first cause that is self-complete and so exists necessarily. In Hegel the necessary being is not a separate existent but, as it were, an order of things; the loose facts of everyday life and even of science are said to point to a system that is allembracing and in which everything is necessarily what it is. The principle of the argument, however, is unchanged despite the change in the conclusion.

Damaging criticism was brought against all the traditional arguments for God's existence by Hume and Kant in the 18th century. The ontological proof was undermined by the contention that "being is not a real predicate"; existence is not part of the concept of God in the way in which, for example, being all-powerful is. To say that something exists is not to specify a concept further but to claim that it has an instance; it cannot be discovered whether a concept has an instance by merely inspecting it. The first cause argument, it was contended, suffers from two fatal weaknesses. Even if it is correct in its assertion that contingent being presupposes necessary being, it cannot identify the necessary being in question with God (as happened in each of the Thomistic proofs) without resurrecting the ontological argument. If it is true, as supporters of the causal proof suppose, that God alone can answer the description of a necessary being, then whatever exists necessarily is God and whatever is God exists necessarily. Modern supporters of the causal proof have tried to meet this objection by saying that the equivalence is one of concepts, not of concept and existent; the existence of a necessary being is already established in the first part of the argument, and the equivalence in the second part of the argument is between the concept of necessary being and the concept of God. In other words, they distinguish between existence and essence. In the first part of the argument, the existence of a necessary being is proved; in the second part of the argument, the essence of that necessary being is identified with what men call God. Beyond this first contended weakness, however, there are grave difficulties in the move from contingent to necessary existence. Things in the experienced world are causally related, and some account of this relationship can be given in terms of the temporal relations of events; causal relations hold primarily between kinds of events, and a cause is, at least,

cisms of proofs

Proofs of the existence of God a regular antecedent of a specific kind of effect. But when an attempt is made to extend the notion of causality from a relationship that holds within experience to one that connects the experienced world as a whole to something that falls wholly outside it, there is no longer anything firm on which to hold. The activities of God cannot precede happenings in the world because God is, by definition, not in time; and how the relationship is to be understood in these circumstances becomes highly problematic. Some metaphysicians, like some recent theologians, seek to evade the difficulty by saying that God is not the cause of the world but its ground, or again by distinguishing causes of becoming, which are temporal, from a cause of being, which is not. It is doubtful whether these moves do more than restate the problem in different terms.

The argument from design is itself a form of causal argument and accordingly suffers from all the difficulties mentioned above, together with some of its own, as Hume and Kant both point out. Even on its own terms it is wrong to conclude the existence of a Creator rather than an architect. Furthermore, it infers that the being in question has unlimited powers, when all that the evidence seems to warrant is that its powers are very great. The argument lost much of its force by the publication of the English naturalist Charles Darwin's theory of natural selection. The unbroken reign of law throughout natural evolution is impressive, but as a line of reasoning it does not seem to bear close examination.

The metaphysical problem of God's existence is more of an issue today than the problem of universals; there are still thinkers who hope to restate the old proofs in more convincing ways. The ontological proof, in particular, has won renewed attention from thinkers such as Norman Malcolm, a philosopher strongly influenced by Wittgenstein, and Charles Hartshorne, an American Realist whose form of theism is called panentheism (the doctrine of a God who has an unchanging essence but who completes himself in an advancing experience). Increasingly, however, philosophers of religion are preoccupied not with these metaphysical abstractions but with the status and force of actual religious claims. "The most real of all things" is no longer at the centre of their attention: they seek to investigate God as a suitable object for worship.

#### THE SOUL, MIND, AND BODY

The soul-body relationship. As well as believing in the reality of Forms, Plato believed in the immortality of the human soul. The soul was, he thought, an entity that was fundamentally distinct from the body although it could be and often was affected by its association with the body, being dragged down by what he called in one passage "the leaden weights of becoming." The soul was simple, not composite, and thus not liable to dissolution as were material things; further, it had the power of selfmovement, again in contrast to material things. Ideally the soul should rule and guide the body, and it could ensure that this situation persisted by seeing that the bodily appetites were indulged to the minimum extent necessary for the continuance of life. The true philosopher, as Plato put it in the Phaedo, made his life a practice for death because he knew that after death the soul would be free of bodily ties and would return to its native element. He also thought that the soul was "akin" to the Forms; it was through the intellect, the purest element in the soul, that the Forms were discovered.

Plato mentioned and attempted to refute alternative accounts of the relationship of soul and body, including a Pythagorean view that described the soul as an "attunement" of the body and thus tried to explicate it as a form or structure rather than an independently existing thing. A theory of this kind was worked out but not taken to its logical conclusion by Aristotle in his treatise *De anima* (*On the Soul*). Aristotle defined soul in terms of functions. The soul of a plant was concerned with nutrition and reproduction, that of an animal with these and with sensation and independent movement, that of a man with all these and with rational activity. The soul was, in each case, the form of some body, and the clear implication of this was that it would disappear as the body in question

dissolved. To be more accurate, the soul was the principle of life in something material; it needed the material element to exist, although it was not itself either material or immaterial but, to put it crudely, an abstraction. Even though Aristotle was clearly committed by everything he said in the earlier parts of the De anima to the view that the soul is not anything substantial, he nevertheless distinguished toward the end of this work between what he called the active and the passive intellects and spoke of the former in Platonic terms. The active intellect was, it appears, separate from the rest of the soul; it came "from outside" and was in fact immortal. It was, moreover, essential to the soul considered as rational, for "without this nothing thinks." Aristotle thus showed the Platonic side of his thought in the very act of trying to emancipate himself from this aspect of Platonism.

The mind-body relationship. In more recent metaphysics less has been heard of the soul and more of the mind; the old problem of the relationship of soul and body is now that of the relationship of mind and body. Most, if not all, subsequent discussion of this subject has been affected by the thinking of Descartes. In his Meditationes de Prima Philosophia (1641; Meditations on First Philosophy), he argued that there was a total and absolute distinction between mental and material substance. The defining characteristic of matter was to occupy space; the defining characteristic of mind was to be conscious or, in a broad sense of the term, to think. Material substance was, so to speak, all one, although packets of it were more or less persistent; mental substance existed in the form of individual minds, with God as the supreme example. The mental and the material orders were each complete in themselves, under God; it was this fact that made it appropriate for him to use the technical term substance in this context: mental substance and material substance. The logical consequence of this view, drawn by some later Cartesians, was that there can be no interaction between mind and body; all causality is immanent, within one order or the other, and any appearance of mind affecting body or of body affecting mind must be explained as the result of a special intervention by God, who, on the occasion of changes in one substance, brings it about that there are corresponding changes in the other. Descartes himself, however, had no sympathy with this view, which was called occasionalism. On the contrary, he stated explicitly that he was not in his body as a pilot is in a ship but was "more intimately" bound up with it. Mind could affect body and vice versa because mind and body had a specially close relationship, which was particularly evident in the aspects of conscious life that have to do with sensation, imagination, and emotion as opposed to pure thought.

Descartes's conviction that, despite their intimate union in this life, mind is really distinct from body sprang from his confidence in the cogito argument. It was possible, he believed, to doubt the existence of his body (what was certain was only that he had the experience of having a body, and this might be illusory) but not the existence of his mind, for the very act of doubting was itself mental. That mind existed was evident from the immediate testimony of consciousness; that body existed was something that needed an elaborate proof, involving his doctrine of clear and distinct ideas and his attempt to establish the existence of a God who is no deceiver. Apart from this, Descartes appealed to arguments of a broadly Platonic type to bring out what was truly distinctive about mind. He admitted that sensation and imagination could be understood only if referred to the mind-body complex but contended that acts of the pure intellect and of will (here his thought was influenced by that of St. Augustine, the great 5th-century Christian thinker) belonged to the mind as it was in itself. Descartes did not claim to have a philosophical proof of the immortality of the soul-that, in his view, required the assurance of revelation—but he did think that his theory prepared the way for that doctrine by establishing the separate existence of mind.

The Cartesian account of mind and body had many critics even in Descartes's own day. Hobbes argued that nothing existed but matter in motion; there was no such thing

Cartesian theory

Platonic and Aristotelian theories of the soul Theory of Spinoza

as mental substance, only material substance. Materialism of a sort was also supported by Descartes's correspondent Pierre Gassendi, a scientist and Epicurean philosopher. A generation later Spinoza was to refashion the whole Cartesian metaphysics on bold lines. In place of the two distinct substances, each complete in itself yet each liable to external interference should God will it, Spinoza posited a single substance, God or Nature, possessed of infinite attributes, of which the mental and the material alone are known to men. The "modes," or manifestations, of this substance were what they were as a result of the necessities of its nature; arbitrary will neither did nor could play any part in its activities. Whatever manifested itself under one attribute had its counterpart in all the others. It followed from this that to every mental event there was a precisely corresponding physical event, and vice versa. A man was thus not a mysterious union of two different elements but a part of the one substance that, like all other parts, manifested itself in different ways under different attributes. Spinoza did not explain why it was that physical events could be correlated with mental events in the case of a human being but not in that of, for example, a stone. His theory of psycho-physical parallelism, however, has persisted independently of his general metaphysics and has found supporters even in modern times.

One way in which Spinoza threw fresh light on the mind-body problem was in calling attention to the influence of the body on the mind and in taking seriously the suggestion that they be treated as a single unit. In this respect, his work on the subject was far in advance of the Empiricist philosophers of the next century. Hume notoriously dismissed Cartesian substance as a "chimera" and argued that minds and bodies alike were nothing but "bundles of perceptions," interaction between which was always possible in principle; in practice, however, he stuck to the old-fashioned view that mind is one thing and body another and did nothing to explore their actual relationships. Empiricist philosophy of mind, both in Hume and in his successors, such as James Mill, was generally crude; it consisted largely in an attempt to explain the entire life of the mind in terms of Hume's ontology of impressions and ideas. Nor did Kant make much, if any, advance in this particular direction, convinced as he was of the necessity of accepting an empirical dualism of mind and body. It was left to Hegel and the Idealists to look at the problem afresh and to bring out the way in which mental life and bodily life are intimately bound together. The accounts of action and cognition given by T.H. Green and Bradley, and more recently by R.G. Collingwood, are altogether more enlightening than those of Empiricist contemporaries just because they rest on a less dogmatic basis and a closer inspection of fact.

No metaphysical problem is discussed today more vigorously than that of mind and body. Three main positions are held. First, there are still writers (e.g., H.D. Lewis in his work The Elusive Mind [1969]) who think that Descartes was substantially right; mind and body are distinct, and the "I" that thinks is a separate thing from the "I" that weighs 170 pounds. The testimony of consciousness is invoked as the main support of this conclusion; it is alleged that all men know themselves to be what they are, or at least who they are, apart from their bodily lives; it is alleged again that their bodily lives present themselves as experiences—i.e., as something mental. The existence of mind, as Descartes claimed, is certain, that of body dubious and perhaps not strictly provable. Second, there are writers such as Gilbert Ryle who would like to take the Aristotelian theory to its logical conclusion and argue that mind is nothing but the form of the body. Mind is not, as Descartes supposed, something accessible only to its owner; it is rather something that is obvious in whatever a person does. To put it crudely, mind is simply behaviour. Finally, there are many philosophers who, although more generally sympathetic to the second solution than to the first, wish to provide for an "inner life" in a way in which Behaviourism does not; P.F. Strawson is a typical example. To this end they try to assert that the true unit is neither mind nor body but the person. A person is something that is capable of possessing physical and mental predicates alike. This is, of course, to say that the "I" that knows simple arithmetic and the "I" that has lost weight recently are the same. How they can be the same, however, has not so far been explained by supporters of this view.

Aside from these main positions, an interesting development is the stress laid by writers—such as Stuart Hampshire, an "ordinary language" philosopher—on self-activity as the distinguishing characteristic of mind. According to this view, a human being is a body among bodies but is, as Plato said, self-moving as material things are not. That this should be so—that human beings are possessed of wills and can in favourable circumstances act freely—is taken as an ultimate fact neither requiring nor capable of explanation. It is often denied that any scientific discovery could give rational grounds for questioning this fact. It is also stressed that the causality of a human being is fundamentally different from that of a natural subject, intentional action being quite other than mere behaviour determined from without.

Connected with these topics is the problem, much discussed in recent philosophy as a result of the rise of cybernetics, of what differentiates men from machines. Two answers used to be given: the power to think and consciousness. Now, however, there exist machines whose calculating abilities far surpass those of any human being: such machines may not literally think, but they certainly arrive at conclusions. Furthermore, it is not true that their operations are of a purely routine nature: there is a sense in which they can improve their performance in the light of their "experiences." They even have an analogue of consciousness in the sensitivity they show to external stimuli. These facts suggest that the gap between minds and machines is less wide than it has often been thought to be; they do not, however, destroy it altogether. Human beings possess powers of creative thought unlike anything found in machines; as Noam Chomsky, an American linguistics scholar, has stressed (and as Descartes urged in his Discours de la méthode), the ability of human beings to handle language in such a way that they comprehend any one of an infinite number of possible expressions is something that cannot be explained in mechanical terms. Again, as J.R. Lucas, a British philosopher, has argued, human beings have the ability to diagnose and correct their own limitations in a way to which there is no parallel in machines. As some older philosophers put it, man is a being with the power of self-transcendence; he can work within a system, but he can also move to another level and so see the shortcomings of the system. A machine can only work within a system; it operates according to rules but cannot change them of its own accord.

Finally, mention should be made of an extreme Materialist solution to the mind-body problem: this solution holds that states of mind are in fact states of the brain. Supporters of this theory agree that the two are separate in idea but argue that physiology shows that despite this they are contingently identical. What seems to be a state of mind, above all to its possessor, is really a state of the brain, and mind is thus reduced to matter after all. It is not clear, however, why physiologists should be granted the last word on a topic like this, and, even if it were agreed that they should be, the correlations so far established between mental occurrences and states of the brain are at best sketchy and incomplete. Central-state Materialism, as this theory is called, professes to have the weight of contemporary science behind it, but it turns out in fact to have drawn to a remarkable degree on what it thinks will be the science of tomorrow.

NATURE AND THE EXTERNAL WORLD

The problem of the existence of material things, first propounded by Descartes and repeatedly discussed by subsequent philosophers, particularly those working within the Empiricist tradition, belongs to epistemology, or the science of knowledge, rather than metaphysics; it concerns the question of how it can be known whether there is a reality independent of mind. There are, however, problems about nature and the external world that are genuinely metaphysical.

The reality of material things. There is first of all

The problem of differentiating men and machines

Modern theories The external world as defective in reality

the question of the status, or standing, of material things, the kind of being they possess. It has been repeatedly suggested by metaphysical philosophers that the external world is in some way defective in reality, that it is a mere phenomenon, something that seems to be what it is not. Plato, as has already been pointed out, held that objects of the senses generally answered this description; they each appeared to possess characteristics that they could not in fact have (water could not be at once hot and cold) and were to that extent delusive rather than real. There was no stability in the world of phenomena and therefore no true reality. In taking this view, Plato drew no contrast between the world of nature and the world of man, although he undoubtedly believed that souls had a superior status. Leibniz, a later philosopher who also followed this general line of thought, began by explicitly opposing souls to material things. To speak precisely, nothing truly existed except monads, and monads were souls, or spiritual beings: all had perceptions, although these varied enormously in degree of clarity (the perceptions of the monads constituting what is commonly called a stone were singularly faint). Although the final description of the world must thus be given in mental terms, it did not follow that nature as normally perceived is a total illusion. Men perceive as well as think, and, although perception is in fact simply a confused form of thought, it is not for that reason to be set aside altogether. The world of nature, the world of things in space and time, is, as Leibniz put it, a "wellfounded phenomenon"; it is what all men must judge to be there, given that they are not pure intellects but necessarily remain to some extent prisoners of their senses.

A theory on somewhat similar lines was worked out by Kant in the Kritik der reinen Vernunft (1781; Critique of Pure Reason), despite Kant's explicit dissent from Leibniz' account of perception as confused thinking. Kant contrasted a realm of things as they are in themselves, or noumena, with a realm of appearances, or phenomena. The former are unknown, and indeed unknowable, though it seems clear that Kant tended to think of them on lines like those of Leibniz; phenomena do not exist independently but are dependent on consciousness, though not on any one person's consciousness. Kant expressed this position by saying that things phenomenal are empirically real but transcendentally ideal; he meant that they are undoubtedly there for the individual subject, though when examined from the point of view of critical philosophy, they turn out to be conditioned by the mind through the forms of sensibility and understanding imposed upon them. Kant's most striking argument for this conclusion was that space and time are neither, as the English physicist Sir Isaac Newton supposed, vast containers inside which everything empirical is situated nor, as Leibniz had suggested, relations between things confusedly apprehended but are rather what he mysteriously called "pure intuitions," factors inherent in the sensibilities of observers. Without observers space and time disappear along with their contents; but once the human point of view is assumed, in the form of percipients who are directly aware of the world through their senses, space and time become as real as anything-indeed, more real because of their pervasive character. There is nothing that falls within experience that does not have temporal relations, and all the data of the senses have spatial relations as well.

Kant's arguments in support of his revolutionary thesis about space and time unfortunately depend to a large extent on his mistaken philosophy of mathematics, and they have accordingly been discounted by later philosophers. In modern philosophy the issues raised in these discussions survive only in the form of an inquiry into the status of nature as investigated by the natural scientist. Descartes already pointed out that material things in fact have properties different from those they seem to have; they appear to possess secondary qualities such as colour or smell but turn out when thought about strictly to be colourless and odourless lumps of matter occupying and moving about in space. Locke endorsed this distinction between primary qualities (such as extension, motion, figure, and solidity) and secondary qualities; but George Berkeley, a major British Empiricist of the early 18th century, criticized it

sharply as absurd: to imagine something that has primary but no secondary qualities is psychologically impossible. For Berkeley the world of the scientist was a fiction and perhaps not even a necessary fiction at that. It seems clear, however, that Berkeley's arguments do not undermine the important distinction between primary and secondary qualities, where the former are treated as fundamental and the latter as derivative; they are valid only against Locke's mistaken claim that primary qualities are objective and secondary qualities subjective. Whatever the explanation, the fact remains that the scientist often knows why the phenomena are as they are, in contrast to the plain man: to that extent nature as he understands it is truer, if not more real, than nature as it is taken to be in everyday experience. Why this should be is not satisfactorily explained by philosophers who follow Berkeley's lead on this question. Nor has either party to the controversy noted sufficiently the extent to which nature as commonly thought of is conceived as penetrated by mind, both when it is taken as intelligible and, still more interestingly, when poets ascribe to it moods or treat it as kindly or hostile. There is analytic work to be done here to which critical philosophers have still to address themselves.

The organizing principles of nature. Connected with the questions just discussed are problems about the organizing principles of nature; i.e., about natural causality. It has been said that the Greeks thought of the world as a vast animal (indeed, the conceptual scheme that Aristotle devised for dealing with nature makes sense only if something like this is presupposed). Nature is the sphere in which different kinds of things are all striving to realize their characteristic form; purpose, though not perhaps explicit purpose, governs it throughout. Aristotle was not entirely insensitive to what are now known as the physical and chemical aspects of the universe, but he treated them as subordinate to the biological aspect in a way modern thinkers find surprising. Even the four elements—earth, air, fire, and water-were seen by him as each seeking its natural place in the cosmos. The contrast between this view and that favoured by Descartes could hardly be sharper. According to Descartes nature is not an organism but a mechanism; everything in it, including animal and human bodies, although not including the human mind, must be understood on mechanical principles. In taking this line, Descartes was endorsing a way of thinking that was central in the new physical science developed by Galileo at the beginning of the 17th century and that was to remain central in the thought of Newton. Descartes himself was not a pure mechanist because he believed that mind was governed by principles of its own; his work, however, undoubtedly encouraged the thought, frequently debated at the time of the Enlightenment, that mental life equally with the physical world must be explicable in mechanical terms. This was a position whose validity at the theoretical level Kant reluctantly admitted, only to try to turn its edge by his dichotomy of theory and practice. Everything in nature, including human behaviour, was subject to causal determination. The dignity and uniqueness of man, however, could be preserved because of the fact that in moral action man raised himself above the sphere of nature by thinking of himself as part of a world of free spirits.

Kant also produced interesting thoughts on the subject of living phenomena. Reflection on the concept of an organism had convinced him that a being of this sort could never be accounted for satisfactorily in mechanical terms; it was futile to hope that someday in the future there would appear a Newton of biology capable of explaining mechanically the generation of even so apparently simple a thing as a blade of grass. To judge or speak of organic phenomena demanded a special principle that was teleological (i.e., related to design or purpose) rather than mechanical. Kant, however, refused to allow that this principle had constitutive force. It belonged, he said, only to "reflective judgment" and thus did not rank alongside the principles of understanding that were so important in physical science. Men must have recourse to a principle of purposiveness in order to speak of living things, but they must not imagine that such recourse would enable

Nature as mecha ical or teleological

Primary and secondary qualities of material things

them to explain their existence and behaviour in any strict sense of the term. They have insight only into what they can produce, and what they can produce are machines, not organisms. Many of Kant's detailed remarks on this subject seem outmoded in the light of subsequent scientific developments; nevertheless, the problem he raised is still the subject of vigorous debate among philosophically minded biologists. His emphasis on the uniqueness of the concept of an organism, which he says is only imperfectly explicated in the language of ends and purposes, is partic-

It remains to mention the seemingly eccentric view of nature taken by Hegel, who regarded it as at once the antithesis to and a prefiguration of the world of spirit. Nature had to exist to provide material for spirit to overcome, although it was a gross mistake to think of it as essentially a lifeless mechanism. Instead of reducing the organic to the inorganic, men should see the latter as pointing forward to the former, which in turn offered a foretaste of the rational structure exhibited by the world of mind. Hegel's disdain for scientists of proved ability, such as Newton and John Dalton, and his endorsement against them of amateur scientists such as the German writer Goethe, make it hard to take his philosophy of nature seriously. It contains, even so, some interesting points, not least the demonstration that in finding nature to be throughout subject to law the scientist is presupposing that it is thoroughly penetrated by mind. To understand these views properly, however, it is necessary to understand Hegel's system as a whole.

#### SPACE AND TIME

Many metaphysicians have argued that neither time nor space can be ultimately real. Temporal and spatial predicates apply only to appearances; reality, or what is real, does not endure through time, nor is it subject to the conditions of space. The roots of this view are to be found in Plato and beyond him in the thought of the Eleatic philosophers Parmenides and Zeno, the propounder of several paradoxes about motion. Plato conceived his Forms as eternal objects whose true location was nowhere. Similarly, Christian philosophers conceived of God as existing from everlasting to everlasting and as present in all parts of the universe. God was not so much in space and time as the source of space and time. Whatever falls within space and time is thereby limited, for one space excludes another and no two times can be simultaneous. God, however, is by definition an infinite being and so must exist timelessly and apart from space.

Reference has already been made to the way in which Kant argued for an intimate connection between time and space and human sensibility: that human beings experience things as being temporally and spatially situated is to be connected with the nature of their minds, and particularly with their sensory equipment. Kant was entirely correct to describe space and time as "intuitions," by which he meant that they are peculiar sorts of particulars; he was right again to insist on the centrality in sensing of the notions of here and now, which can be indicated but not reduced to conceptual terms. It is highly doubtful, however, whether he had sufficient grounds for claiming a priori insight into the nature of space and still more that of time; his case for thinking that space and time are "pure" intuitions was palpably inadequate. The lesson to draw from his careful discussion of this subject might well be not that there must be a form of reality lying beyond space and time but rather that nothing can be real that does not conform to spatial and temporal requirements. Space and time are bound up with particularity, and only what is particular can be real.

It was only in a weak sense that Kant denied the reality of time and space. Other philosophers have certainly been bolder, though generally on the basis of a less solid grasp than Kant possessed of what it is to experience temporally and spatially. Thus, Bradley argued against the view that space and time are "principles of individuation" by alleging that no specification of spatial or temporal position, whether in terms of here and now or by the use of spatial coordinates or dating systems, could achieve uniqueness. Any descriptions such as "at 12 o'clock pre-

cisely on January 4, 1962" or "just 75 yards due north of this spot" might apply to infinitely many times or places in the universe, for there was nothing to prevent there being infinitely many temporal and spatial orders. Bradley forgot that the whole meaning of a spatial or temporal description is not exhausted when attention is given to the connotations of the terms used; what has to be considered is the words as used in their context, which is that of a person who can indicate his position in space and time because of the fact that he is himself situated in space and time. One cannot express uniqueness in words as such, but he can use words to express uniqueness. Bradley's suggestion that it is possible to conceive of many temporal and spatial orders is by no means free from controversy. In general, men think of all events as happening before, simultaneously with, or after the moment that is called "now," all spatial positions as relating in some way or other to the point that is called "here." In circumstances where this cannot be done, as with events or places in a dream, men dismiss them as quite unreal. That there might be events or places with no relation to their own now and here is something they often refuse to take seriously, though there are theories in modern science that suggest that they are wrong to do so.

It was pointed out earlier that to say that something is unreal in a metaphysical context is often to say that it is unintelligible, and it is not surprising to find that arguments about the unreality of space and time have often turned on conceptual considerations. Thus, it is alleged that there is an incoherency in the notion of space because it claims to be a whole that is logically prior to its parts, and nevertheless turns out in practice to be merely an indefinitely extensible aggregate. Everything that occupies space falls within a wider spatial context; the thought of space as such is, as Kant saw, involved in any spatial description. Yet space as such is something that constantly eludes man's grasp; space, as man knows it, is just one spatial situation after another.

The difficulties found in the notion of time turn on the combination in it of the idea that time is continuous and the idea that it is made up of discrete parts. Henri Bergson, a French philosopher who was concerned with the notions of duration and movement, said that time was experienced as continuous; it was only the "spatialized" time measured by clocks that was taken to have separable parts (minutes, hours, weeks, and so on), and this "public" time was merely conventional. This, however, seems altogether too easy a solution of the problem, for privately experienced time also goes by (one stretch of it follows another), and the thesis that public time is merely conventional is at best highly controversial. It must be allowed that time is commonly thought of as at once flowing and, as it were, subject to arrest. Whether this is, in fact, openly inconsistent may be doubted, but it is on points like this that the metaphysical case in question rests.

Few British or American philosophers discuss these questions now, largely because they have been persuaded by Moore that any attack on such central notions in men's thought as these must be mistaken in principle. As a result, little attention is given to a question that deserves investigation; namely, what is to take the place of space and time in metaphysical thought. Idealist writers constantly said that space and time qualified appearances, and that nothing that did so could fail to be taken up in the higher experience that was experience of reality. But how is this supposed to be done? Time is perhaps cancelled and yet preserved in the idea of eternity, space in the thought of something that is at once omnipresent yet not in any particular place. But what is there that is positive about these notions? The eternal, it is sometimes said, is not to be identified with what lasts through all time; it is, strictly, outside time altogether. But what does it mean to say this? When it is said, for example, that numbers or truths are eternal, the proper inference is that they have nothing to do with time; to inquire when they came into or will go out of existence is to ask a question that is ill posed. When God, however, is said to be eternal, the impression is often given that he has temporal characteristics, although in some higher form. What this higher form is deserves

Theory of Bergson

Theories of Kant and Bradley

careful consideration, the result of which might be that it is not the conception of time that is incoherent but the conception of God.

#### THE CONCEPTION OF SPIRIT

As well as arguing for the separate existence of mental substance, metaphysicians have claimed that mind is, as it were, the key to the understanding of the universe. What exists is spirit, or at least is penetrated by spirit. This is the thesis of Idealism, a type of philosophy that is often derided but that, like its rival Materialism, has a constantly fresh appeal. This view is worth examining in more detail than has so far been possible.

It is best to begin by distinguishing the thesis of Idealism proper from some others with which it is readily confused. Leibniz said that the true atoms of nature were monads or souls; at bottom nothing existed except minds. Berkeley claimed that sensible things have no existence without the mind; there are spirits that experience, including an infinite spirit, and there are the contents of their experiences, but there is no independently existing world of matter. For the philosophers who followed Hegel, both Leibniz and Berkeley were "subjective" Idealists: they conceived of reality in terms of the experiences of individual minds. Hegel's view, by contrast, was that what exists is not so much pure mind as mind writ large; i.e., the universe is penetrated by mind and exists for the sake of mind, and it cannot be understood unless this fact is grasped. Hegel was thus not committed to denying that there is an independent world of nature but, on the contrary, openly proclaimed it. Nature was there for mind to master it and in so doing to discover itself.

The field in which Hegel first worked out this theory was that of human affairs. The human world may be said to be mind made objective because it consists of a series of structures-examples would be a language, a set of moral or political procedures, a science, a practical art such as medicine—that constitute mental achievements. The mind involved in structures of this kind, however, is collective rather than personal. An art such as medicine or a science such as mathematics is not the invention of any particular individual; and although individuals have contributed and are contributing to the advancement of each structure, they do so not in their personal capacity but as embodying impersonal intelligence.

Because the human world thus embodies mind, or spirit, it needs to be understood in a special way-in terms of what Hegel called "concrete universals." Concepts of this kind are in order when it is a question of grasping a particular sort of subject matter—one in which there are intimate connections between the data under consideration. Connections in nature are, on the surface at any rate, of a purely external character; striking a match, for example, has nothing internally to do with producing a flame. When, however, a historian considers the different stages of some movement or process, or when an anthropologist studies the various aspects of the life of a society, the material they confront is internally related just because it represents the work of mind-not, of course, of mind working in a vacuum but of mind facing and reacting with greater or less intelligence to particular situations. It is not surprising in these circumstances to find that the conceptual structure employed by the student of human affairs is, in important respects, profoundly different from that employed by the student of nature. In the latter, what are in question are constant conjunctions, observed but not understood; in the former, men have insight into what happens or obtains because they can reenact in their own minds the thought behind the material they study.

All this is, or should be, comparatively uncontroversial; it represents the truth behind the claim of Wilhelm Dilthey, a German philosopher and historian of ideas, that human affairs can be understood, as it were, from within, by means of what he called Verstehen ("understanding"). But of course it is one thing to say this and another altogether to argue that the universe at large should be construed as if it were mind writ large. What makes Hegelianism intriguing to some and totally implausible to others is precisely that it makes this extravagant claim. As has already been mentioned, the world of nature for Hegel is in one way independent of mind: its being is certainly not its being perceived. It is, nevertheless, relevant to mind in all sorts of important ways: in providing a setting in which mind can act, in constituting an obstacle that mind can overcome, in presenting mind with something seemingly alien in which it can nevertheless find itself insofar as it discovers nature to be intelligible. If Hegel were asked why there was a world of nature at all, his answer would be "for the sake of mind." Just as man's social environment affords opportunities to the individual to come to full knowledge of himself by realizing his differences from and dependence upon others, so the world of nature affords similar opportunities. By transforming the natural scene, men make it their own. In so doing they come to know what they can do, and thus what they are.

There is, perhaps, more to this doctrine than appears at first sight. It is, however, easier to assent to it in general terms than to follow Hegel over it in detail. According to the Idealist account, there is in the end only one true description of the universe, namely that which is couched in terms of the concrete universal. Reality is a single self-differentiating system, all the parts of which are intimately connected; it is spirit that expresses itself in the natural and human worlds and comes to consciousness of itself in so doing. Any other account of the matter-for example, that given by the scientist in terms of experienced uniformities-must be dismissed as inadequate. To Hume's objection that there is an absolute logical difference between propositions expressing matters of fact and existence and propositions expressing relations of ideas, Hegel replies brusquely that the distinction is untenable. At a certain level, perhaps, facts are taken as "brute." Even the scientist, however, never abandons his aspiration to understand them—it is only provisionally that he talks in terms of "ultimate inexplicabilities"-and the philosopher knows that the demand to incorporate all knowledge in a single system is not to be denied. It is a demand that, as Hegelians are willing to admit, can in practice never be met but that, nonetheless, ceaselessly makes itself felt. That such is the case is shown by the extraordinary fascination exercised by this strange but remarkable type of philosophy.

To try to understand the universe in terms of spirit is characteristic of philosophers whose main extra-philosophical interests are in the humanities, particularly in historical studies. Relatively few scientifically minded thinkers have followed this line of thought, and many Idealists of repute, including Bradley and Benedetto Croce (an Italian philosopher and literary critic whose major philosophical work was published in four volumes between 1902 and 1917 under the general title La filosofia dello spirito ("The Philosophy of the Spirit"), have been least convincing when writing about science. Hegel himself, perhaps, had less sympathy with scientific than with historical aspirations; this is not to say, however, that he was ill-informed about contemporary science. He knew what was going on, but he saw it all from his own point of view, the point of view of one who was entirely convinced that science could not produce any ultimate answers. He valued science but rejected the scientific view of the world.

#### Types of metaphysical theory

To complement and, in a way, to correct this brief survey of the problems of metaphysics it will be useful at this point to insert a short summary of a number of overall metaphysical positions. Metaphysics, as already noted, professes to deal with "the world as a whole"; the thoughts of a metaphysician, if they are to make any impact at all, must be connected in a system. The object in what follows will be to present in outline metaphysical systems that have exercised and, indeed, continue to exercise a strong intellectual appeal. In all cases but one, these systems were given classical shape by particular philosophers of genius. Relatively little attention, however, will be paid to this fact here because the present concern is with types of view rather than with views actually held. Thus, reference will be made to Platonism instead of to the philosophy of Plato, and so on in other cases.

Theory of Hegel All reality as spirit