

DIALECTIC

The term *dialectic* originates in the Greek expression for the art of conversation (*διαλεκτική τέχνη*). So far as its great variety of meanings have anything in common, it is perhaps that dialectic is a method of seeking and sometimes arriving at the truth by reasoning, but even this general description, which to fit the variety of cases is so vague as to be valueless, fails to do justice to the Hegelian and Marxist notion of dialectic as a historical process. However, among the more important meanings of the term have been (1) the method of refutation by examining logical consequences, (2) sophistical reasoning, (3) the method of division or repeated logical analysis of genera into species, (4) an investigation of the supremely general abstract notions by some process of reasoning leading up to them from particular cases or hypotheses, (5) logical reasoning or debate using premises that are merely probable or generally accepted, (6) formal logic, (7) the criticism of the logic of illusion, showing the contradictions into which reason falls in trying to go beyond experience to deal with transcendental objects, and (8) the logical development of thought or reality through thesis and antithesis to a synthesis of these opposites. Meaning (2) is notably still current, and the term is often used in a pejorative sense.

In the following discussion the different kinds of dialectic will be elucidated in their historical order.

SOCRATES AND HIS PREDECESSORS

Dialectic perhaps originated in the fifth century BCE, since Zeno of Elea, the author of the famous paradoxes, was recognized by Aristotle as its inventor (Diogenes Laërtius, *Lives* VIII, 57). Aristotle presumably had Zeno's paradoxes in mind, as they are outstanding examples of dialectic, in the sense of refutation of the hypotheses of opponents by drawing unacceptable consequences from those hypotheses. For example, it is unacceptable that Achilles never overtakes the tortoise; therefore, the hypothesis that leads to this conclusion must be rejected. Insofar as this method relies on the law of formal logic known as *modus tollens* (if p implies q , and q is false, then p is false), Zeno was a pioneer of logic, but there is no evidence that he could formulate the law itself; it was left to Aristotle later to state explicitly the principles that underlie this kind of dialectic, and thus to create the science of formal logic.

Dialectic as the use of such indirect logical arguments to defeat an opponent seems to have been used by Zeno for serious philosophical purposes, but it later

became, in the hands of the Sophists, a mere instrument for winning a dispute. For example, the Sophist Protagoras claimed that he could "make the worse argument appear the better"; such an aim belongs rather to rhetoric than to logic or philosophy. This degenerate form of dialectic was named "eristic" by Plato (for example, in *Sophist* 231E) and others, from the word *ἔρις* (strife). Eristic came to make deliberate use of invalid argumentation and sophistical tricks, and these were ridiculed by Plato in his dialogue *Euthydemus*, which takes its name from an actual Sophist who appears in it as a user of eristic arguments. Aristotle, too, thought the Sophists worth answering in his book *De Sophisticis Elenchis* (Sophistical refutations), although he sharply distinguished eristic from dialectic, dialectic being for him a respectable activity.

If, however, the lost work of Protagoras did begin, as several subsequent writers attest, with the claim that on every subject two opposite statements (*λόγοι*) could be made, and if the book continued with a content of statement and counterstatement, then Protagoras deserves to be considered the ancestor of the medieval or of the Hegelian dialectic rather than the father of eristic.

Socrates stands in contrast to the Sophists. Unlike them, he professed to be seeking the truth. But he was not above winning the argument, and what is called the *elenchus* was a major element in dialectic as practiced by him, if we are to accept as accurate the presentation of him in Plato's earlier dialogues. The Socratic *elenchus* was perhaps a refined form of the Zenonian paradoxes, a prolonged cross-examination that refutes the opponent's original thesis by getting him to draw from it, by means of a series of questions and answers, a consequence that contradicts it. This is a logically valid procedure, for it corresponds to the logical law "if p implies not- p , then not- p is true (that is, p is false)." Dialectic seems to have been, for Socrates, literally the art of discussion, a search for truth by question and answer; but the definition of a concept is the sort of truth that was typically sought by him, and he supplemented his *elenchus* with another technique, later called *epagoge* (*ἐπαγωγή*) by Aristotle. This consisted in leading the opponent on to a generalization by getting him to accept the truth of a series of propositions about particular cases. It may now be seen why, in discussing dialectic, Aristotle says "there are two innovations that may justly be ascribed to Socrates: epagogic arguments and universal definition" (*Metaphysics* M 4, 1078b). For Aristotle had a different conception of dialectic, and since *elenchus* goes back to Zeno, the two features he mentions are the only contributions made by

Socrates to dialectic as Aristotle understood it. The Socratic irony, or pretense not to know anything and not to be conducting a refutation, was a personal feature of Socrates' dialectic and contributed nothing to later developments.

PLATO

In the middle dialogues of Plato there occurs a development of the notion of dialectic beyond what we take to be typical of the historical Socrates. Even though Socrates is the protagonist, the views he is portrayed as putting forward are presumably those of Plato. Dialectic is regarded there as the supreme philosophical method, indeed the highest of human arts: it is "the coping-stone, as it were, placed above the sciences" (*Republic* 534E). In the *Cratylus* Plato had described the dialectician as "the man who knows how to ask and answer questions" (390C), and this view of dialectic as question and answer is the Socratic element that forms the single thread running through his altering conceptions of the method. Furthermore, dialectic always had the same subject matter: it sought the unchanging essence of each thing. But the kind of reasoning that Plato regarded as involved in dialectic seems to change: In the middle dialogues it was some kind of operation on hypotheses, whereas in the later ones (for example, *Phaedrus* and *Sophist*) there is, instead, an emphasis on division (*διαίρεσις*) as a method. Division in effect consists of a repeated analysis of genera into species, of more general notions into less general ones, as a way of arriving at a definition when no further division is possible. This process is complemented by the opposite process of synthesis or collection (*συναγωγή*).

Although Plato always spoke of dialectic in an extremely favorable manner, his discussion of it in *Republic* VI–VII marks a high point, as it is there made to be the distinguishing feature in the education of the philosopher-kings and is to be concerned eventually with the supreme Form, that of the Good. It is to reach certainty and overcome the need for hypotheses (*Republic* 511B). But the elevation of the sentiments expressed is matched by suitable vagueness as to the exact process involved, and the interpretation of the few words that are at all precise has been greatly disputed.

It may seem that if dialectic is a process of discussion, then it cannot be of any use for private thought. For Plato, however, there was no difference between the two: "Thought and speech are the same thing, but the silently occurring internal dialogue of the soul with itself has been specially given the name of thought" (*Sophist* 263E; see also *Theaetetus* 189E). However, Plato's most impor-

tant pupil, Aristotle, was already taking a different view of the nature of thought and hence assigning a merely secondary role to dialectic: "Deception occurs to a greater extent when we are investigating with others than by ourselves, for an investigation with someone else is carried on by means of words, but an investigation in one's own mind is carried on quite as much by means of the thing itself" (*De Sophisticis Elenchis* 169a37). Dialectic was no longer to be the method of science.

ARISTOTLE

The practice of dialectic was probably a major activity in Plato's Academy, to which Aristotle belonged from 367 BCE until Plato's death in 347. Aristotle's *Topics* was apparently intended as an aid to this dialectical debate. It is a handbook for finding arguments to establish or demolish given positions, or *theses*, such as "Every pleasure is good," and while the particular theses used as examples in the *Topics* are no doubt borrowed from the debates in the Academy, the methods provided for dealing with them are completely general, that is, applicable to any thesis of the same form. The *Topics* is therefore the first systematic account of dialectic, and Aristotle indeed boasted that prior to his own treatment of the subject "it did not exist at all" (*De Sophisticis Elenchis* 183b36), and criticized the Sophists for giving teaching that was unsystematic (*ἄτεχνος*). His own trend toward generality and system had the effect that in the *Topics* Aristotle discovered many basic principles of formal logic, including some in the propositional calculus and in the logic of relations, but he hardly reached an explicit formal statement of them. A large part, at least, of this work was written before his discovery of the (categorical) syllogism, a type of argument for which he developed, in his *Analytics*, an elaborate system—the earliest system of formal logic—that superseded dialectic as a theory of demonstration. But even if Aristotle's formal logic developed as an alternative to his dialectic, it may still have arisen out of dialectic in some sense, since it has been argued that he discovered the syllogism as a result of reflection on Plato's method of division.

The distinguishing feature of dialectic for Aristotle was not so much the type of reasoning as the epistemological status of the premises. Reasoning is dialectical if its premises are opinions that are generally accepted by everyone or by the majority or by philosophers; if the premises merely *seem* probable, or if the reasoning is incorrect, then it is "eristic." Aristotelian dialectic is thus quite respectable; it has even been called a "logic of probability," a name that could be misleading because dialectic

tic does not in fact involve inductive reasoning. However, dialectic is not good enough, Aristotle believed, to be a method of acquiring knowledge proper, or science. For that we require demonstration, which is valid reasoning that starts out from true and self-evident premises. The value of dialectic, according to Aristotle, is threefold: It is useful for intellectual training, for discussions with others based on their own premises, and for examining the unprovable first principles of the sciences. “Dialectic, being a process of criticism, contains the path to the principles of all inquiries” (*Topics* 101b3).

STOICS AND MEDIEVALS

Euclides of Megara (a contemporary of Plato) and his successors in that town were logicians of note, and the Megarian tradition in logic was continued by the Stoics. The Stoic logic was known as dialectic, perhaps because the initiators of their tradition had an interest in the Zenonian paradoxes and related reasoning. Under the headship of Chrysippus, who lived from 280 to 206 BCE, the Stoic school reached its zenith, and it was still going strong four centuries later. A saying is recorded from this period, that “if the gods had dialectic, it would be the dialectic of Chrysippus” (Diogenes Laërtius, *Lives* VII, 180). By “dialectic” the Stoics primarily meant formal logic, in which they particularly developed forms of inference belonging to what we now call the propositional calculus. But they applied the term *dialectic* widely: for them it also included the study of grammatical theory and the consideration of meaning-relations and truth. This widened scope, reflecting the special interests of the early Stoics, remained typical of the school; it was accepted by Cicero and perhaps overemphasized by Seneca, who wrote that dialectic “fell into two parts, meanings and words, that is, things said and expressions by which they are said”—*διαλεκτική in duas partes dividitur, in verba et significationes, id est in res quae dicuntur et vocabula quibus dicuntur* (*Epistulae Morales* 89, 17).

In the Middle Ages “dialectic” continued to be the ordinary name for logic: for example, the first medieval logical treatise was the *Dialectica* of Alcuin. But the word *logica* was also used; in fact, Abelard wrote a *Dialectica* and more than one *Logica*. As the works of Plato and Aristotle became known, the Scholastics took over various conceptions of dialectic, and the medieval disputation, by which university degree examinations were conducted, can be regarded as a remote descendant or revival of the debates in the Platonic Academy. The disputants maintained theses and antitheses, arguing mainly in syllogisms; the most significant difference from

ancient practice was that the class of unacceptable consequences now included those propositions that were inconsistent with divine revelation.

KANT AND HIS SUCCESSORS

In his *Critique of Pure Reason* (A61, B85) Immanuel Kant asserted rather sweepingly that the actual employment of dialectic among the ancients was always as “the logic of illusion (*Logik des Scheins*).” He explained that he applied the term to logic as a critique of dialectical illusion. He titled the second division of his *Transcendental Logic* “Transcendental Dialectic.” This new kind of dialectic was concerned with exposing the illusion of transcendental judgments, that is, judgments that profess to pass beyond the limits of experience; but the illusion can never, he thought, be dispelled entirely, as it is natural and inevitable.

Although Kant, in his *Transcendental Dialectic*, had set out the antinomies of pure reason as four sets of thesis and antithesis, he did not call his resolution of the antinomies a synthesis. It was his successor Johann Gottlieb Fichte who, in his *Grundlage der gesamten Wissenschaftslehre* (Jena and Leipzig, 1794), first introduced into German philosophy the famed triad of thesis, antithesis, and synthesis. In this he was followed by Friedrich Schelling, but not in fact by G. W. F. Hegel. Fichte did not believe that the antithesis could be deduced from the thesis; nor, on his view did the synthesis achieve anything more than uniting what both thesis and antithesis had established.

HEGEL AND HIS SUCCESSORS

Hegel is commonly supposed to have presented his doctrines in the form of the triad or three-step (*Dreischnitt*) of thesis, antithesis, and synthesis. This view appears to be mistaken insofar as he did not actually use the terms; and even though he evinced a fondness for triads, neither his dialectic in general nor particular portions of his work can be reduced simply to a triadic pattern of thesis, antithesis, and synthesis. The legend of this triad in Hegel has been bolstered by some English translations that introduce the word *antithesis* where it is not required.

However, there is indeed a Hegelian dialectic, involving the passing over of thoughts or concepts into their opposites and the achievement of a higher unity. But if it is a process that arrives at a higher truth through contradictions, it does not constitute a new conception of dialectic. Hegel actually showed his awareness of the traditional notion by paying tribute to “Plato’s *Parmenides*, probably the greatest masterpiece of ancient dialectic.”

And even the doctrine that dialectic is a world process—not merely a process of thought but also found in history and in the universe as a whole—was not wholly new, but goes back to Heraclitus and the Neoplatonist Proclus. Here again Hegel, with his interest in the history of philosophy, was aware of his predecessors. What seems to be genuinely new in Hegel's view of dialectic is the conception of a necessary movement. Dialectic was said to be “the scientific application of the regularity found in the nature of thought.” The “passing over into the opposite” was seen as a natural consequence of the limited or finite nature of a concept or thing. The contradictions in thought, nature, and society, even though they are not contradictions in formal logic but conceptual inadequacies, were regarded by Hegel as leading, by a kind of necessity, to a further phase of development.

Hegel has had an enormous influence not only on willing disciples but even on thinkers nominally in revolt against him, such as Søren Kierkegaard. One of the most important offshoots of the Hegelian dialectic was the Marxist dialectic, in which, of course, “matter” was substituted for Hegel's “spirit.”

See also Abelard, Peter; Aristotle; Chrysippus; Cicero, Marcus Tullius; Dialectical Materialism; Diogenes Laertius; Fichte, Johann Gottlieb; Greek Academy; Hegel, Georg Wilhelm Friedrich; Hegelianism; Heraclitus of Ephesus; Infinity in Mathematics and Logic; Kant, Immanuel; Kierkegaard, Søren Aabye; Marxist Philosophy; Medieval Philosophy; Neoplatonism; Plato; Proclus; Protagoras of Abdera; Schelling, Friedrich Wilhelm Joseph von; Socrates; Sophists; Stoicism; Zeno of Elea.

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PLATO

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DIALECTICAL MATERIALISM

Marxism-Leninism is the name given to the form of Marxist theory that was accepted and taught by the Russian and Chinese Communist parties and the Communist parties associated with them. Marxism-Leninism is both a view of the world as a whole and of human society and its development. The view of human society is called historical materialism, the name bestowed upon it by Friedrich Engels. The view of the world as a whole is called dialectical materialism, a title devised by G. V. Plekhanov, the Russian Marxist, and first used by him in an article published in 1891. Marxist-Leninists regard dialectical materialism as the basis of their philosophy and generally begin comprehensive expositions of that philosophy with an account of it. One might say that dialectical materialism constitutes the logic, ontology,

and epistemology of Marxism-Leninism, and historical materialism its ethics, politics, and philosophy of history. Sometimes, however, the term *dialectical materialism* is used for the fundamentals of Marxism-Leninism as a whole. When dialectical materialism is thus conceived, the natural sciences are the working-out of dialectical materialism in the nonhuman sphere and historical materialism its working-out in the sphere of human society. But these slight differences do not affect the content of the theory.

MARX'S MATERIALISM

Approving references to materialism are prominent in Karl Marx's writings, especially in the early works. In *The Holy Family* (1845), for instance, he argued that one branch of eighteenth-century French materialism developed into natural science and the other branch into socialism and communism. Thus he regarded "the new materialism," as he called it, as a source of the social movement that he believed was destined to revolutionize human life. Materialism, as Marx understood it, was very closely connected with social criticism and social development. One aspect of materialism that Marx supported was its rejection of idealist attempts to undermine and belittle sense experience. He held that there is something dishonest and irresponsible in philosophies which deny that sense experience reveals the existence of an independent material world; hence his view of knowledge was realist, both on philosophical and moral grounds. In taking this view he was much influenced by Ludwig Feuerbach. Like Feuerbach, Marx rejected speculative philosophy, or metaphysics, as we should call it today, on the ground that the truth about the world and society can only be discovered by the use of empirical scientific methods. In a broad sense of the term, therefore, Marx was a positivist, in that he denied the possibility of any knowledge of the world that is not based on sense experience. Hence, Marx's view of the world was naturalistic and opposed to any form of religion or supernaturalism. Again under the influence of Feuerbach, Marx held that belief in God, in an afterlife, and in heaven and hell cannot be rationally justified, but may be explained (indeed, explained away) in terms of the unfulfilled needs and hopes of men whose lives are frustrated by an oppressive social order. Marx held, too, that men are not immaterial souls conjoined with material bodies. In his view, psychophysical dualism is a relic of supernaturalism and must be rejected with it. Marx did not systematically develop this view as part of a philosophical argument but took it as the basis of his view, expressed in *The Holy*