

# Democritus

c. 460 BC-c. 370 BC

(Also known as Democritus of Abdera) Greek philosopher.

The following entry provides criticism of Democritus's life and works. For additional information about Democritus, see *CMLC*, Volume 47.

## INTRODUCTION

Democritus of Abdera, a contemporary of Socrates, stands out among early Greek philosophers because he offered both a comprehensive physical account of the universe and a naturalistic account of human history and culture. Although none of his works has survived in its entirety, descriptions of his views and many direct quotations from his writings were preserved by later sources, beginning with the works of Aristotle and extending to the fifth-century AD *Florilegium (Anthology)* of Joannes Stobaeus. While Plato ignored Democritus's work, largely because he disagreed with his teachings, Aristotle acknowledged Democritus as the most important physicist of his age, primarily for his exposition of the theory of atomism, which holds that everything in the universe, from objects to human souls, is a result of the interactions and rearrangements of the atoms in the void. Democritus is also known for his ethical theory, based on the thesis that wisdom is the greatest good for humans because it enables a stable and tranquil condition. His position was highly influential during the Hellenistic period, when it was further developed by Epicurus and his followers, who also built on Democritus's physical theory and theory of knowledge. Although Democritus's philosophy fell into obscurity during the Middle Ages because of its association with Epicurean hedonism and atheism, it became the focus of renewed interest during a revival of atomism in the Renaissance and early modern period, and today scientists cite the philosopher as an important early contributor to scientific thought.

## BIOGRAPHICAL INFORMATION

Little is known about the life of Democritus. Basic biographical information about the philosopher is disputed, including the dates of his life, the identity of his teachers, the extent of his writings, and the facts about his death. Because the available sources of information contradict one another, certainty about the details of his life is impossible.

It is known that Democritus was born in Abdera, a Greek city-state located in modern-day Thrace that was also

home to the philosopher Protagoras. There are several indications, both external and internal to his writings, that Democritus may have held office in Abdera and that he was a wealthy and respected citizen. It is also known that he traveled widely in the ancient world, visiting not only Athens but Egypt, Persia, the Red Sea, possibly Ethiopia, and even India. Scholars also agree that he lived a very long life of between 90 and 109 years.

Democritus is said to have been a pupil of Leucippus, an important figure in the early history of philosophy about whom little is known. Aristotle and others credit Leucippus with devising the theory of atomism, and it is commonly believed that Democritus expanded the theory under his tutelage. However, some scholars have suggested that Leucippus was not an actual person but merely a character in a dialogue written by Democritus that was subsequently lost. A similar strategy was employed by the philosopher Parmenides, who used the character of a goddess to elucidate his views in his didactic poem, *On Nature*.

## MAJOR WORKS

Like his biography, the basic facts about Democritus's works are disputed. At one extreme, some scholars suggest that he wrote as few as two works, *Megas Diakosmos (The Major Cosmic System)* and *Peri Physeôs kosmou (On the Nature of the World)*. At the other extreme, some researchers have suggested that he authored dozens of works, touching on nearly every subject in philosophy and science. In the latter camp is Diogenes Laertius, who, writing in the second to third century AD, preserved a list of Democritus's writings compiled by the editor Thrasyllus of Mendes (c. 1 AD). Thrasyllus arranged Democritus's works in tetralogies, under the headings "ethics" (two tetralogies, or eight works), "works on nature" (sixteen works), "mathematics" (twelve works, including cosmography and geography), "literary criticism and fine arts" (eight works), and "technical" works or textbooks (eight works, including several works on medicine). There are also nine additional "unclassified" works and nine collections of notes. Diogenes Laertius pointed out that some works circulating under the name Democritus at the time were compilations and that others were spurious. Similarly, a collection of letters alleged to have been written by Democritus and the philosopher Hippocrates have been deemed inauthentic. Scholars continue to rely on the list preserved by Diogenes Laertius. Walter Leszl (2007; see Further Reading), for example, drew extensive inferences

about the contents of Democritus's writings from the information contained in the list.

However much he may have written, all that survives of Democritus's works, apart from what are likely imitations by such philosophers as Plutarch and Seneca, is testimony about his physics in the works of other writers, beginning with Aristotle, and fragments of his ethics collected in various sources, especially the famous *Anthology* of Stobaeus. The standard edition and enumeration of these fragments is Hermann Diels's *Die fragmente der Vorsokratiker* (6th ed., 1951-52; *The Fragments of the Presocratic Philosophers*). The edition and Russian commentary of Salomo Luria (1970) greatly expanded the number and context of fragments beyond Diels's edition, which was explicitly intended as a provisional collection. Recent translations of much of the extant evidence include the works of C. C. W. Taylor (1999) and, in Italian, Leszl (2009).

### CRITICAL RECEPTION

Although Democritus had followers, they did not form a school as did the followers of Plato and Aristotle; consequently, the works of Democritus are not as well known as the works of the latter philosophers. Famously, Plato never mentioned Democritus in his own work, although scholars have established beyond doubt that he engaged Democritean ideas in several dialogues, most notably the *Timaeus*. Aristotle, however, repeatedly referred to Democritus as his most important predecessor in physics. It is also probable that Aristotle drew on Democritus's ethical thought in composing his own work, as he wrote at least two books about the earlier philosopher and was therefore familiar with his ideas.

In the Hellenistic period, Epicurus adopted and adapted Democritean physics and ethics in his own philosophy. He introduced crucial modifications throughout, especially in physics. Democritus's reputation subsequently suffered from his association with Epicurus. Although he still had admirers in addition to the Epicureans in the Hellenistic period (for example, Plutarch and Seneca), the association of his philosophy with atheism and hedonism led to its rejection by the early church fathers, who wrote forceful polemics condemning materialist philosophies, of which Democritus was supposed to be the principal proponent. The revival of Democritean thought and Epicureanism in the Renaissance was spearheaded by the recovery, editing, and republication of the works of Diogenes Laertius and Lucretius, an Epicurean poet who authored a didactic epic in Latin about atomistic philosophy. Since that time, Democritus has been widely admired by natural philosophers, including Francis Bacon, James Clerk Maxwell, and Erwin Schrödinger.

Contemporary scholarship on Democritus stems from the identification and classification of Democritean fragments

and references by German philologists, including Diels, in the nineteenth century. The most important and sustained work on Democritus in the first three quarters of the twentieth century was conducted by Italian scholars, who drew important connections between Democritus and his contemporaries and successors. These scholars offered an estimation of the systematicity and importance of Democritus's ethical fragments, and they also speculated about the relationship between Democritus's ethics and his physics. In addition, Italian scholars have led the way in defining the relationship between Democritus's philosophy and Epicureanism.

English-language scholarship focused on Democritus's work has grown significantly during the twentieth and twenty-first centuries. Gregory Vlastos's (1945-46) influential two-part study examined Democritus's physics and ethics, challenging the conventional wisdom that the two were only vaguely related by positing a number of previously ignored connections. Donal McGibbon pursued a similar vein, arguing in his 1965 essay (see Further Reading) that Democritus's religious views are connected to his atomism through his emphasis on the human soul as a compilation of atoms. More recently, James Warren (2002; see Further Reading) offered an overview of the intermediaries between Democritus and Epicurus that yielded fresh insights into the relationship between Democritus's ethics and physics. Integrated views of Democritean ethics and physics have been challenged, however, by several scholars, some of whom have gone so far as to suggest that Democritus did not author the ethical texts attributed to him. Debate regarding the relationship between the philosopher's atomism and his ethical perspective continues to inspire critical commentary.

Democritus's ethical and religious thought has also garnered significant critical attention independent of his physics. Julia Annas's 2002 essay, for example, offered an interpretation of Democritus's ethics that emphasized its relationship to the ethical theories of better-known philosophers such as Socrates, Plato, and Aristotle. Annas pointed out the importance of Democritus to the interpretation of Socrates, who is traditionally credited with inventing philosophical ethics even though, unlike Democritus, he wrote nothing.

Democritus's atomism has been the subject of extensive critical discussion in recent decades, as scholars have tackled core interpretive issues, including the intrinsic properties of Democritus's atoms and his understanding of the infinite void. David Furley's 1983 essay, for example, examined the issue of atomic weight, exploring available source material in an attempt to determine whether Democritus's conception of the atom included weight as an attribute. Stephen Makin (1989) built on the work of Furley, extending his discussion of the atom's attributes to include its indivisibility. Alexander P. D. Mourelatos (2005; see Further Reading) offered further clarification of

Democritus's terminology in physics and cosmology, including the atom, differentiating the meaning of Democritus's terms from the terms used to describe his theories by later philosophers, particularly Aristotle.

The sizable body of scholarly criticism treating Democritus's work attests to its enduring philosophical importance. Christoph Lüthy (2000) traced the ways in which Democritus's work has been interpreted throughout history, examining how Democritus himself has been construed and mythologized in the more than two-thousand years since his death.

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### PRINCIPAL WORKS

\**Megas Diakosmos* [*The Major Cosmic System*]. Late 5th-early 4th century BC. (Philosophy)

\**Peri Physeôs kosmou* [*On the Nature of the World*]. Late 5th-early 4th century BC. (Philosophy)

†*Ioannis Stobaei Florilegium* [*Johann Stobaeus's Anthology*]. 5th century. (Philosophy)

‡Diels, Hermann. *Die fragmente der Vorsokratiker* [*The Fragments of the Presocratic Philosophers*]. Ed. Walther Kranz. 6th ed. 3 vols. Berlin: Weidmann, 1951-52. (Philosophy)

§*Demokrit* [*Democritus*]. By Democritus. Ed. Salomo Luria. Leningrad: Nauka, 1970. (Philosophy)

||Leszl, Walter. *I primi atomisti: Raccolta di testi che riguardano Leucippo e Democrito* [*The First Atomists: A Collection of Texts Related to Leucippus and Democritus*]. By Leucippus and Democritus. Florence: Olschki, 2009. (Philosophy)

#### Principal English Translations

Freeman, Kathleen, and Hermann Diels. *Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels, Fragmente der Vorsokratiker*. Cambridge: Harvard UP, 1957. Print.

Taylor, C. C. W. *The Atomists: Leucippus and Democritus*. Toronto: U of Toronto P, 1999. Print.

\*The attribution of these works to Democritus is not universally accepted.

†An important source of Democritean fragments.

‡This anthology contains fragments of works by Democritus and other pre-Socratic philosophers.

§This compilation of fragments of Democritus's works is more comprehensive than that contained in Diels's *Die fragmente der Vorsokratiker*.

||The collection of Democritean fragments contained in this anthology of the works of Democritus and Leucippus is the most comprehensive to date.

### CRITICISM

#### Gregory Vlastos (essay date 1945-46)

SOURCES: Vlastos, Gregory. "Ethics and Physics in Democritus." *Philosophical Review* 54.6 (1945): 578-92; 55.1 (1946): 53-64. Print.

[In the following essay, Vlastos disputes the claim by the prominent classicist Cyril Bailey that Democritus's ethics does not constitute a moral theory. Through an analysis of Democritus's language, Vlastos demonstrates that the philosopher couches his discussion of ethics in terms related to the body, developing "a physical concept of the soul" and a theory of moral behavior closely linked to his physics.]

"Democritus' 'ethic' hardly amounts to a moral theory," writes Cyril Bailey; "there is no effort to set the picture of the 'cheerful' man on a firm philosophical basis or to link it up in any way with the physical system."<sup>1</sup> Coming at the end of the most valuable study of Democritus that has yet appeared in English, this conclusion can not be ignored. If one dissents, one must give reasons.<sup>2</sup> Yet mere polemics would be an unprofitable exercise. Bailey's conclusion issues from an interpretation of the fragments. It can best be met by an alternative, or rather, supplementary interpretation. I turn to it directly with one precaution to the reader: What follows does not attempt a discussion of Democritean ethics in its entirety. It leaves out the whole of the social ethic, including the most important concept of *aidos*. It keeps deliberately to those aspects of Democritean ethics which can be linked, directly or indirectly, to the physics.

#### I. PSYCHE

1. Scientific medicine assumed that intelligence has a bodily basis,<sup>3</sup> that mental disease has a bodily cause and is susceptible of bodily therapy.<sup>4</sup> Democritus, himself the author of medical treatises,<sup>5</sup> was no doubt willing to follow this methodology as far as it would go. Yet when he consciously generalized the concept of disease from "body" to "life" (*βίος*) and "house"<sup>6</sup> he was going one step further. He was asking for a new science (*σοφίη*) that would do for the soul what medicine did for the body.<sup>7</sup> Against the physician's professional bias to make the *logos* of the body the key to the well-being of both body and soul,<sup>8</sup> Democritus insists: "It is fitting for men that they should make a *logos* more about the soul than about the body. For the perfection of the soul puts right the faults of the body. But strength of body without reasoning (*λογισμός*) improves the soul not one whit" (B. 187).

2. The first axiom of this *logos* of the soul is the ethical corollary of a proposition established in the physics, that