

Empedocles | Encyclopedia.com

Complete Dictionary of Scientific Biography COPYRIGHT 2008 Charles Scribner's Sons
16-20 minutes

(*b.* Acragas [now Agrigento, Sicily], c. 492 BCE;

d. c. 432 BCE), *natural philosophy*. For the original article on Empedocles of Acragas see *DSB*, vol. 4.

The early Greek poet, natural scientist, and philosopher Empedocles is the author of two (or perhaps one) lost didactic epics, the *On Nature* and *The Purifications*. Empedocles is best known as the oldest exponent of the four-element theory of matter—earth, air (or *aether*), fire, and water—which endured until the advent of modern chemistry, although with some serious modifications by later thinkers and despite strong criticisms from the ancient atomists. Writing in the wake of Parmenides' critique of earlier philosophers, Empedocles posited four eternally stable and indestructible elements, which he sometimes also referred to by using the names of the Olympian gods. In addition to the four elements, he also advanced two motive forces, the quasi-psychological powers Love and Strife. Intuitively enough, Love is a force of attraction, combining the elements into mixtures, while Strife separates them. These six “first principles” underlie all phenomena. Further, while Love and Strife are equals, their sway over the elements rises and falls in alternation, each giving way before the other. The result of this alternation is that the world as a whole, including its inhabitants, is periodically dissolved and recombined. This alternation is known as his doctrine of the cosmic cycle. Along with his physical teachings, Empedocles was also a firm believer in reincarnation, along Pythagorean lines, and even makes personal claims to divine status as a fallen god. In accordance with these beliefs, he abhorred meat-eating and proposed to do away with the sacrificial slaughter of animals, a main source of meat in his day and the central ritual practice of Greek religion. How this side of his thought relates to his physical teachings, if at all, is one of the central problems in the interpretation of his thought.

Biography and Biographical Tradition . The biographical tradition on Empedocles is rich and rather fanciful, as one might expect for someone who claimed to be god, but also includes some reliable information. Our only source is [Diogenes Laertius](#)' “Life of Empedocles,” chapters 51–77 of book eight in his *Lives of the Philosophers*. Writing probably in the early third century CE, Diogenes is a mere compiler of earlier material. The most famous story of all, which took on a life of its own as the great example of philosophical megalomania, told how Empedocles cast himself into the volcanic flames of Mount Aetna in order to prove himself a god (book eight, chapter 69). But Diogenes also records other variants on his death and further tales of wonder-working. Since it is unlikely that much biographical detail can have survived beyond the work itself, it is probably safest to see in these stories a biographical extrapolation from the work (see Lefkowitz in bibliography). Further, some of these tales are known to have circulated in nonhistorical works, so that they need not have been originally written with a biographical intent and were only employed as such much later. For instance, the oldest known mention of the leap into Aetna occurs in a philosophical dialogue by Heraclides Ponticus, an older contemporary of Aristotle. It seems that Heraclides, known for his fabulous afterlife myths, only related it so as to refute it with an equally fanciful apotheosis of his own invention (see Diogenes 8.69). From less spectacular material we are told that Empedocles's family was prominent at Acragas, and wealthy enough to equip and win the chariot race at the [Olympic games](#). Aristotle (fragment 66,

Rose ed.) and the historian Timaeus (*Fragmente der Griechischen Historiker* [ed. F. Jacoby] no. 566, fragment 2) relate his efforts to sustain the fledgling democracy after the fall of the previous tyranny, and Timaeus remarks that his democratic leanings seem to clash with the conceited and pretentious tone he strikes in his poetry. The latter, precisely because of this contrast, seems to indicate some independent authority.

Works: *On Nature* and/or *The Purifications* . Empedocles presented his doctrines in the traditional poetic medium of hexameter verse, the format used by Homer and Hesiod two centuries earlier. This choice had precedents in Xenophanes (c. 570–c. 468 BCE) and Parmenides (fl. c. 490), who also used poetry to convey their ideas. As a philosophical didactic poet, he was the champion of the genre and was the model for the first-century BCE Latin poet Lucretius, who emulated him in his own poem *On The Nature of Things*, devoted to Epicurean, atomistic physics.

Empedocles' poetry has not survived entire but is known to readers mostly through fragments, that is, ancient citations, especially from Aristotle and Simplicius, the sixth-century CE Aristotelian commentator. In 1999 a papyrus was published, *PStrasb. Gr. 1665–1666*, from the first or second century CE, containing about seventy-four full or partial original lines, twenty of which overlap with previously known passages. This new text, from an ancient copy of Empedocles' poetry, was assembled from numerous smaller scraps by its editors and contains four longer continuous sections named *a*, *b*, *c*, and *d* (discounting a few remainders). It raised the total number of surviving verses to a little over five hundred, plus or minus some half-lines. In addition to these fragments we have a substantial number of testimonies in the form of ancient reports and discussions of Empedoclean doctrine, which also add to our understanding.

The reconstruction of Empedocles' literary output is controversial because the evidence is conflicting. The fundamental question is whether he wrote one or two main philosophical poems. [Diogenes Laertius](#), at 8.77 of his "Life of Empedocles," gives a *single* verse total of five thousand lines along with *two* apparent titles, the *On Nature* and *The Purifications*. This is the only ancient passage that mentions both titles together. Otherwise, the majority of the fragments are given without a title, which might incline people to think that Empedocles was known for only one work. But then again, a small number of citations do mention one or the other title, which counterbalances that inference. After some hesitations in the first half of the nineteenth century, scholarly opinion thereafter opted strongly for the assumption of two works and sought to classify the unidentified fragments according to their thematic link with each title. Thus, the *On Nature* was given all the physical, cosmological, and biological fragments, while to *The Purifications* were attributed the teachings on reincarnation and religious reform. The most influential edition of this type remains that found in Diels-Kranz, *Die Fragmente der Vorsokratiker*, volume 1 (Berlin, 1903; 5th ed., 1934, with numerous reprints). Over the last twenty years, however, a number of challenges have been made to this older consensus, in favor of the assumption of a single original work. No new consensus has yet emerged. More recently, since 1999, the papyrus, while it does not contain a title, has contributed some new evidence to the debate. Although sections *a*, *b*, and *c* show overlap with fragments that Simplicius gives from the *On Nature*, section *d* overlaps in part with a passage linked by its source to "purifications." Even more significantly, section *d* contains a transition from a discussion of reincarnation to cosmological material. At a minimum, then, it seems that the *On Nature* must also have discussed reincarnation; or perhaps there was only one work, which went under alternative titles.

Doctrines . If the number of Empedoclean works remains an open question, this is no longer the case for the reconstruction of his thought. Section *d* implies very clearly that however problematic people may find the unity of his thought, Empedocles nevertheless presented it as a unity. Accordingly, perhaps the best way to approach Empedocles is as an early philosophical system builder. The components from which he constructed his system include the Ionian tradition of natural philosophy, Pythagorean beliefs about the soul, and Parmenides' critique of earlier philosophy. His debt to the Ionian tradition of natural science is reflected in his continued commitment to its scientific project of explaining the world, especially in the form of a cosmology, which had been put into question by Parmenides' critique of change. As for his response to Parmenides, there is general agreement that it is to be found in his doctrine of the cosmic cycle, but less agreement as to the precise form of the doctrine or how well it succeeds in responding to Parmenides' critique. However exactly it be understood, it seems that the main motivation of the theory is a commitment to nonemergence, that is, the goal is to show how changes in the world, properly understood, do not involve anything coming "from nothing."

Scholarly opinion on the cosmic cycle is divided between two main types of reconstruction. Different labels have been applied to them, but there is no consistent usage. Here they will be called the *symmetrical view* and the *hierarchical interpretation*.

The symmetrical view is characterized in the main by an emphasis on the equality of Love and Strife. This equality entails that both powers achieve, in alternation, complete domination over the elements. Under Love, the elements become harmoniously fused into a cosmic super-organism, which Empedocles calls the *Sphairos* god; under Strife, the four are completely separated, so that no mixture can endure. (It is unclear whether the elements under Strife simply descend into chaos or whether they form some kind of structured pattern.) Worlds like ours occur in the middle periods, when both powers temper each other's rule. According to Aristotle in *On Coming-To-Be and Passing-Away* (*De generatione et corruptione* or *GC*) 334a5–7, Empedocles held that the current world was a "world of Strife"; this appears confirmed by extant passages describing how Strife shattered the *Sphairos* and thereby brought the world into being.

Provided such a reconstruction is correct, there are at least two ways in which it might provide a response to Parmenides. One is through the notion of elemental stability, the degree to which the individual elements, while retaining their separate properties, seem separately to inherit the permanency of Parmenides' unique eternal "being." This approach can invoke in its support Parmenides' own cosmology in the Way of Appearance. Another possibility is to stress the permanent status of the whole cosmic cycle, especially the two-directional process of becoming. This way, neither the elements nor the *Sphairos* is recognized as more fundamental or ontologically prior to the other, while the cycle itself is shown to be invariant within limits. Some support for this interpretation is given by Aristotle, when he wonders at *GC* 315a19–20, if the *Sphairos* does not deserve also to be considered a principle, alongside the four elements. Against the symmetrical interpretation of the cycle, there is no dominant alternative reconstruction. By and large, however, the alternatives tend to negate the full equality of the powers and place Love above Strife in a more hierarchical relation. It is in fact easier to characterize this approach negatively, in terms of the objections made to the alternative. One objection is that the symmetrical view commits Empedocles to an unheard-of double cosmogony: one world of Love and one of Strife. A second objection is that both powers would, on the symmetrical view, prove profoundly ambivalent factors in human life, since both would be creative as well as destructive. Yet extant fragments show Empedocles as a consistent devotee of Love. Potent objections though these are, one strong consideration against them is that, while the asymmetrical reading seems more intuitive, it is much more difficult to see how it can be framed as a response to Parmenides.

Another notable feature of his work is that, within the framework of his four-element and two-power theory, it appears that Empedocles sought to be as encyclopedic as possible. The extant fragments cover numerous topics, including cosmology, geology, botany, physiology, reproduction, and embryology as well as sense perception (Empedocles is the oldest known theorist of the senses as captors of "emissions" from bodies). Particularly noteworthy in this respect is his use of elaborate poetic analogies from crafts and technology to explain natural structures and processes, for example fragment 84 Diels-Kranz on the eye, which is compared to a storm lantern.

Finally, there remains the problem of relating Empedocles' views on reincarnation to his physics. Since the nineteenth century, scholars have often denied, sometimes vehemently, any possible reconciliation between an immortal reincarnated soul and elemental physics. Strictly, however, an important distinction should be made, which is often simply ignored, namely that Empedocles' reincarnated soul need not be understood as an immaterial, immortal Platonic soul. That doctrine was Plato's achievement in the *Phaedo*, two full philosophical generations later. As for Empedocles' own view, despite the obvious difficulties, a number of fragments attest to his belief in some kind of postmortem survival. This is bizarre, but based on the physiological knowledge of the day, hardly to be excluded as a strict impossibility, and had strong local Pythagorean precedent. Moreover, this survival need not be equated with a claim of complete immortality, which the cyclical destruction of the world in any case denies. From other fragments we also know that Empedocles postulated the existence of what he calls "long-lived gods." He mentions these more than once, in the context of a list of all the varied products of the combined elements, alongside fishes, birds, land animals, and men and women. If the epithet "long-lived" seems to imply their status as mortals or animals of some kind, the word "gods" nevertheless implies that they rank above humans in the natural world. Perhaps, but this remains highly conjectural, this is what he meant when he claimed to be a fallen god: he had once been of their number, and entertained hopes of imminent return.

SUPPLEMENTARY BIBLIOGRAPHY

WORKS BY EMPEDOCLES OF ACRAGAS

Bollack, Jean, ed. *Empédocle*. 3 vols. Paris: Éditions de Minuit, 1969. Reprinted, Paris: Gallimard, 1992. In French. Very full commentary, but idiosyncratic and now out of date.

Wright, M. R., ed. *Empedocles: The Extant Fragments*. New Haven, CT: [Yale University Press](#), 1981; 2nd ed., London: Duckworth, 1995. Reliable text, translation and commentary.

Inwood, Brad, ed. *The Poem of Empedocles*. Toronto: University of Toronto Press, 1992; 2nd ed., 2001. Edition with translation based on single-work approach.

Martin, Alain, and Oliver Primavesi, eds. *L'Empédocle de Strasbourg (P. Strasb. gr. 1665–1666): Introduction, édition et commentaire*. Berlin, [New York](#), and Strasbourg: Walter de Gruyter, 1999. High-quality first edition of the papyrus.

Vítek, Tomáš, ed. *Empedoklés*. 3 vols. Prague: Herrmann & Synové, 2006. In Czech. Fullest, completely up-to-date edition, commentary, and bibliography. For specialists.

OTHER SOURCES

Curd, Patricia. *The Legacy of Parmenides: Eleatic Monism and Later Presocratic Thought*. Princeton, NJ: [Princeton University Press](#), 1998.

Furley, David J. *The Greek Cosmologists*. Cambridge, U.K.: [Cambridge University Press](#), 1987.

Goulet, Richard. "Empédocle." In *Dictionnaire des philosophes antiques*. Vol. 3, pp. 66–88. Paris: Presses du CNRS, 2000.

Graham, Daniel W. "Symmetry in the Empedoclean Cycle." *Classical Quarterly* 38 (1988): 297–312.

Kingsley, Peter. *Ancient Philosophy, Mystery, and Magic: Empedocles and the Pythagorean Tradition*. Oxford: [Oxford University Press](#), 1995.

Kirk, G. S., J. E. Raven, and M. Scholfield. *The Presocratic Philosophers*. 2nd ed. Cambridge, U.K.: [Cambridge University Press](#), 1983.

Lefkowitz, Mary R. *Lives of the Greek Poets*. London: Duckworth, 1981.

Long, Anthony, ed. *The Cambridge Companion to Early Greek Philosophy*. Cambridge, U.K.: Cambridge University Press, 1999.

Mourelatos, Alexander P. D. "Quality, Structure, and Emergence in Later Pre-Socratic Philosophy." *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 2 (1986): 127–194.

O'Brien, Denis. *Empedocles' Cosmic Cycle: A Reconstruction from the Fragments and Secondary Sources*. Cambridge, U.K.: Cambridge University Press, 1969.

Osborne, Catherine. "Empedocles Recycled." *Classical Quarterly* 37 (1987): 24–50.

Pierris, Apostolos, ed. *The Empedoclean Kosmos: Structure, Process, and the Question of Cyclicity*. Patras, Greece: Institute for Philosophical Research, 2005. Multiple articles on new papyrological material and other questions. For specialists.

Sedley, David. *Lucretius and the Transformation of Greek Wisdom*. Cambridge, U.K.: Cambridge University Press, 1998. See chapter 1, "The Empedoclean Opening."

Trépanier, Simon. *Empedocles: An Interpretation*. London and [New York](#): Routledge, 2004.

Simon Trépanier