

Indivisibility And Its Significance

Post by "Cassius" of December 28, 2019 at 12:06 PM

Epicurean atomism

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The structure of the atom

The reform of atomism also looks at the very structure of the atom. According to Democritus, the atom, although three-dimensional, is indivisible because of its smallness and solidity. If we set aside a report by Simplicius that attributes to Democritus the idea of atomic parts, we have no reason to question the consensus that a Democritean atom has no parts.¹⁶ Aristotle objected, however, that because of the continuity of motion, the atom cannot escape mathematical division (*Phys.* 240b8–241a6). Even if we suppose with the atomists that it is *physically* indivisible, no extended body can as a whole instantaneously cross a spatial limit. We ought, therefore, to be able to distinguish those parts of the atom which have moved past a certain point and those which have not. For that reason, according to Aristotle, an indivisible 'cannot move nor change in any way' (*Phys.* 240b31). Everything which moves is necessarily divisible, except those accidentally in movement as part of a larger body which is itself in movement.

This is a strong objection: the early atomists make the existence of movement – at least of atomic movement – an unquestionable principle. So Aristotle dismantles the very basis of their physics. It is true that Aristotle conceives of locomotion as the traversal of a spatial medium, while the first atomists seem not to have given a clear account of the status of the space in which it takes place. Their void is essentially the negative interval which separates atoms, not the place *in which* atoms move. But Epicurean void does play the role of an empty space. It is the empty space (*chōra*) in which atoms move.¹⁷ That is why, in order to think of movement, we have to make the (strictly false) supposition that there is a 'top' and a 'bottom' even though the universe is infinite (*Ep. Hdt.* 60).

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