

cesses. It does not recognize metaphysics in any region, but relies throughout its arguments and demonstrations entirely on physics to show the inseparable connection between matter, form and force. This position, I need hardly say, is greatly in advance of that occupied by Priestly, and from which his opponents endeavored to drive him by persecution, but they only succeeded in forcing him into exile. Priestly and Lavoisier having demonstrated that the atmosphere was composed of sensible gases, it remained for their successors in every part of the world to carry on the work unremittingly in order to acquire a positive knowledge of the properties of the atoms and corpuscles that constitute the unseen universe about us.

Philosophers, like Descartes, discoursed learnedly about etherial waves, etherial rings and etherial vortices, but they knew positively nothing of their nature or their properties. We know that ether is but matter in a subtile form, and that its properties and phenomena are due to its accompanying energy, so that logic and abstract reasoning are only good up to a certain point, after which they must yield to something more substantial.

The philosophy of scientific dualism which is opposed to that of monism, implies a belief in a spirit or in some force, or efficient cause other than material or mechanical. This scientific dualism must not be confounded with theological dualism, which is entirely metaphysical, and supposes two co-eternal principles—one good and one evil, but which the Christian Church, while ostensibly practising, has always condemned. Scientific dualism, then, believes in mind as distinct from matter. This position, until recently, was apparently very reasonable and almost unassailable.

The ultimate conception of matter was formerly conceived to be any atom. Now we know that an atom may be divisible into a thousand smaller particles, known as corpuscles, which may be seen and investigated as Lennard's rays, as they are thrown off the cathode or negative pole into a Crooks' tube. It has been found that these corpuscles are charged with negative electricity, while the atoms which are thrown off at the anode, or positive pole in a Crooks' tube are charged with positive electricity. From this it may be fairly assumed that matter may be subjected to some process by which the ultimate divisibility of its corpuscular particles may be carried so far as to practically destroy it. Or it may, in other words, be changed into an intermediary substance seemingly having neither material nor spiritual properties. Such a substance would, however, be identical with ether, and we know that ether is only matter in an extremely subtile state.