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In his *Natural Science*, Aristotle asserts that all objects or entities can be defined through four factors, and “we can hardly be said really to know a thing until we have grasped . . . the factors that are most directly responsible for it” (26). These four causes, the material factor, formal factor, propelling factor, and telic factor, which represent not just the physical essence of an object but the impetuses for its existence.

The first factor he lists is the “material factor,” which represents the physical composition of an object, the substances from which it is derived. For example, one might make the claim that the material factor of a hammer is steel, or that of a piece of clothing is cotton. Elsewhere in the chapter, Aristotle discusses how everything can be reduced to a composition of certain fundamental elements such as earth, air, fire, and water, though he does not make any theories as to what those elements might be; in some ways, this idea bears a certain resemblance to atomic theory.

The other physical factor is the “formal factor” which refers to the nature of the object as a whole. For example, consider a photograph: the material factor is the paper and chemicals from which it is made, but the form is their arrangement into a picture. Aristotle also applies this notion to more abstract entities, such as those from mathematics: the formal factor of a rectangle is its definition as a four-sided figure with right angles.

In addition to these physical quantities, Aristotle also associates two other factors with an entity. The propelling factor represents the direct cause of the object’s existence, and the telic factor describes the object in terms of its purpose. Using the same photograph example from above, the propelling factor would be the photographer or the camera, as they caused the photograph to take form, and the telic factor might be the desire to record an event. For the hammer, the propelling factor would be a craftsman (or, more realistically, a factory); the telic factor might be a construction project.