

cases, however, will always arise in which it will be necessary to balance a number of principles to ascertain the correct ruling of the law. In general, one can say that a *prima facie* duty indicates who carries the burden of proof in a legal contest.

SEE ALSO DELIBERATION AND MORALITY; MORAL JUDGMENT; OBLIGATION; MORAL; PROMISE, MORAL OBLIGATION OF A.

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Paul Gaffney

Associate Professor, Department of Philosophy
St. John's University, Queens, NY (2013)

PRIME MATTER

"If there is some primary stuff, which is not further called the material of some other thing, this is primary matter" (*Met.* 1049a 24–26, Tredennick). This statement of ARISTOTLE (384–322 BC) can serve as an introduction to the study of prime matter, *πρώτη ὕλη*, a term somewhat infrequent in his writings, but important in his explication of physical reality. Matter fulfills an important function in Aristotle's explication of SUBSTANCE as the object of study of the *Metaphysics* (cf. *Met.* 1028b 2–4) and of MOTION, a question studied in the *Physics* (*Phys.* 200b 12–14). The very fact that Aristotle considers matter in the *Metaphysics* is significant and helps to avoid misunderstandings. The perspective from which Aristotle studies matter in the *Metaphysics* as well as in other treatises—*Physics*, *Generation and Corruption*, *On the Heavens*, and *Meteorology*—is above all philosophical and not scientific in the modern sense of this term. Aristotle is not so much interested in knowing the concrete composition of matter as in understanding the structure of physical reality; as he himself says, "we are trying to discover not what undergoes these changes, but what is their characteristic manner" (*Gen. et corr.* 318b 8–9). In his explication of sensible reality, Aristotle elaborates the hylomorphic doctrine, according to which

all corporeal substance is composed of matter (ὕλη) and form (μορφή), principles that reciprocally require one another and that exist only in the unity of a composite, related to one another as POTENCY AND ACT.

Aristotle's View. This way of understanding the structure of sensible substance also makes possible the explanation of some of the main characteristics of the physical world: its dynamism, its mutability. For Aristotle, this dynamism manifests itself on two levels: (1) the sorts of CHANGE that do not affect the IDENTITY of the subject that changes: this is accidental change, which Aristotle typically calls motion (κίνησις); and (2) the profound changes that result in the coming into being or disappearance of a given substance: this is generation and corruption (ἡ γένεσις καὶ ἡ φθορά), that is, SUBSTANTIAL CHANGE. In the former case some feature or relationship of the substance comes into being or is lost, whereas in the latter the substance itself comes into being or goes out of being. For this reason Aristotle distinguishes these two types of change as relative generation and absolute generation (ἀπλῶς γένεσις) (cf. *Phys.* 190a 30–33). Although Aristotle limits motion to the changes that affect three of the categories—QUALITY, QUANTITY, and PLACE—and denies it to substance (cf. *Phys.* 225a 34–225b 9), he nonetheless applies the same explicative schema to all classes of change (μεταβολή): "it is clear that some subject must underlie the contraries, and that there must be two contraries" (*Phys.* 191a 4–5); the substrate (ὑποκείμενον) is called matter, and the contraries are called form (εἶδος and μορφή) and PRIVATION (στέρησις).

The need for a substrate that guarantees continuity in change is obvious for Aristotle (cf. *Phys.* 190b 3–4) because otherwise it would be necessary to admit the coming into being of a reality from NOTHING or its ANNIHILATION (cf. *Phys.* 191b 13–14). In the case of motion, no difficulty exists in determining the substrate, because the subject (in this case, the substance itself) persists during the change, whereas identification of the substrate of the change involved in any generation or corruption is more complicated, because "nothing perceptible persists in its identity as a substrate, and the thing changes as a whole" (*Gen. et corr.* 319b 14–16). Yet there is still a substrate in such change.

In this context Aristotle speaks of prime matter as the ultimate substrate at the basis of all substantial change, in contrast with the highly determinate or proximate matter, ἡ ἐσχάτη ὕλη (cf. *Met.* 1045b 18), which is the matter proper to each physical substance. As he explains, "even if all things have the same primary constituent or constituents, and if the same matter serves as starting-point for their generation, yet there is a matter proper to each. . . . And there come to be several matters for the same thing, when the one matter is mat-

ter for the other” (*Met.* 1044a 16–21, Tredennick). Bronze, for example, would be the proximate matter of a statue, even though the bronze, in turn, has its own matter and this, like any other matter, ultimately derives from the primary elements (cf. *Met.* 1015a 6–11). Prime matter (though never found existing alone) is, one might say, the ultimate principle of potentiality that Aristotle must postulate for his general account of substantial change.

Aristotle stresses that the principles of substance and, among these, matter, must be understood analogously (cf. *Met.* 1070b 16–21; 1071a 29–34; *Phys.* 191a 8). It is thus clear that he understands MATTER AND FORM as an explicative schema that can be reiterated and applied at various levels. Where Aristotle takes his reflections on matter to their ultimate consequences is in his treatise *On Generation and Corruption*. In this text he applies his explicative model to what he regards as the simplest elements that are constitutive of everything else: water, earth, air, and fire. Thus, even if the formal schema, the composition of matter and form, can be applied at different levels, these levels cannot be multiplied indefinitely. Aristotle conceives the universe as hierarchically structured, from the level nearest to prime matter, the four elements, to the first mover, NOUS, self-thinking thought that is pure ACTUALITY and free from all contact with matter.

For Aristotle, however, the four elements are already formed in certain ways and can be transformed into one another: they are generated and corrupted, constituting a continual generation “like a circle” (*Gen. et corr.* 331b 2), appropriate to a world eternally moved by an unmoved first mover, which causes the motion of the first heavenly sphere, that of the sun (cf. *Gen. et corr.* II, 10–11). Aristotle explains the possibility of the reciprocal transformation of the elements based on the primary qualities that distinguish each: “Fire is hot and dry, whereas Air is hot and moist (Air being a sort of vapour); and Water is cold and moist, while Earth is cold and dry” (*Gen et corr.* 330b 3–5). It is precisely the qualities that are in part common and in part contrary within the four elements that allow Aristotle to explain the reciprocal transformation among them: “Air, e.g., will result from Fire if a single quality changes; for Fire, as we saw, is hot and dry while Air is hot and moist, so that there will be Air if the dry be overcome by the moist” (*Gen et corr.* 331a 26–29). But the explicative schema of change must also be applied to this transformation of the elements and, consequently, there must be a that remains in the reciprocal generation and corruption of the elements (cf. *Gen. et corr.* 329a 28–32). This substrate seems to correspond to what Aristotle considers to be properly prime matter. Each element, as separate, possesses its proper matter and proper form; yet the matter, the substrate that makes possible continuity in the

generation that occurs between them, must be the same (cf. *De coelo* 312a 30–33). To this matter belong, in a preeminent way, the characteristics that Aristotle ascribes to matter: ingenerable and incorruptible, pure potency, without form and, as such, unknowable (cf. *Phys.* 192a 27–34).

The elements and the combinations between them would be, in turn, the material cause required for the generation of other more complex bodies that Aristotle in his study *Parts of Animals* calls ὁμοιομερῆ, which are dominated by a single quality: bones, tendons, blood, flesh, and so on. These, in turn, will constitute the material basis of the generation of bodies ἀνομοιομερῆ, which are characterized by distinct properties: vital organs, the hands, the face, and so on. (cf. *De part. an.* 402a–403a). Obviously the material cause is insufficient to explain the generation and corruption of the different parts of living substances; matter, as has been said, cannot exist apart from form. Nonetheless, this way of explaining the generation and corruption of the various bodies allows one to understand that prime matter, in the strict sense—“some primary stuff, which is not further called the material of some other thing”—is not the material substrate present in all substantial change, but that which underlies the generation and corruption of the four elements, which are in fact present in every complex body.

Aquinas’s View. Fifteen centuries later, Thomas Aquinas (1225–1274) made this hylomorphic doctrine his own. He introduced it into his metaphysical thought undoubtedly as a result of his reading of Aristotle. Importantly, Thomas adds to the ontological structure of natural substance—matter and form—the composition of ESSENCE and act of BEING. For Thomas, every substance except God is composed of an essence and an act of being (cf. *Summa theologiae* I, q. 61, a.1), which are related as potency and act, and the essence of corporeal substances is in turn composed of prime matter and substantial form (cf. *De ente et essentia*, c. 1).

St. Thomas expounds his conception of prime matter in his commentaries on the works of Aristotle (*Commentary on the Physics*, *Commentary on the Metaphysics*, and *De generatione et corruptione*), in some of his treatises (*De veritate*, *De ente et essentia*, *De principiis naturae*, and *De mixtione elementorum*), in his major works (*Commentary on the Sentences*, *Summa theologiae*, and *Summa contra gentiles*), and in general whenever it is required by the questions, frequently theological, with which he is occupied. Two minor works, of doubtful authenticity, are also dedicated to the theme: *De natura materiae* and *De principio individuationis*.

Thanks to Aristotle’s commentators, the notion of matter reached St. Thomas for the most part deprived of the functional dimension that it had originally possessed.

For this reason Thomas frequently attributes to prime matter what Aristotle said of matter in general. In this way prime matter came to be regarded as the necessary component, together with substantial form, of the essence of corporeal substances as well as the permanent substrate of all substantial change (cf. *De principiis naturae*, 2).

Thomas emphasizes some of the characteristics possessed by matter that Aristotle had discussed: prime matter is pure potency, *potentia tantum* (*De veritate* q. 8, a. 6), lacking all form and existing only in combination with substantial form, and hence unknowable. For this reason, though it is created, it is ingenerable and incorruptible, and even God could not give it independent existence: “it is something concreated rather than created” (*ST* 1, q. 7, a. 2, ad 3). To create it directly would be contradictory, because “to say that matter is in act without form, is to say that contradictory things occur at the same time; hence it cannot be done by God” (*Quodlibet* 3, q. 1. a. 1).

Another fundamental point that Thomas defends is the unicity of substantial form, for this doctrine is the guarantee of the unity of the substance. The essence of every corporeal substance, including that of the elements, is composed of prime matter and substantial form, without the possibility of the simultaneous presence of multiple substantial forms in a single substance. This requires Thomas to explain the presence of the elements in mixed bodies as a virtual presence, the presence of their qualities that persists thanks to the unique substantial form of each corporeal substance (cf. *ST* 1, q. 76, a. 4, ad 4).

Thomas stresses and also develops the question of prime matter as the principle of INDIVIDUATION. Although his thought undergoes some variation on this point, he always considers matter endowed with quantity to be the principle that allows the individuation of the substantial form. Prime matter, in itself pure potency, is insufficient for individuating substantial form; for the form to become the form of a specific individual, it needs a proportionate matter (cf. *Super Sent.*, lib. 3, d. 1, q. 2, a. 5, ad 1), which is in some way linked to quantity, because quantity is the only one of the accidents that, due to its dimension, contains in itself the principle of its individuation (cf. *Super De Trinitate*, pars 2, q. 4, a. 2, ad 3). Thomas’s vacillations on this point regard the way—indeterminately or determinately—to understand the presence of dimension in matter. The question is complex, and St. Thomas’s explanation should not be understood as a successive causality, but in the manner of a double causality of form on matter and matter on form, of a distinct and complementary order.

SEE ALSO ARISTOTELIANISM; GENERATION-CORRUPTION; MATTER, PHILOSOPHY OF

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Rev. Ignacio Yarza

Ordinary Professor of the History of Ancient Philosophy
Pontifical University of the Holy Cross
Rome, Italy (2013)

Translated by Joseph T. Papa