

*Duns Scotus on matter and form**Cecilia Trifogli*

INTRODUCTION

Matter and form are the fundamental ingredients of the Aristotelian physical world. The relevant objects of this world are of many different kinds. They include things such as (i) earth, water, air, fire (the so-called elements), (ii) wood, iron, bronze (non-living mixed bodies), and (iii) plants, animals, and human beings (living bodies). All this variety of things have a common ontological structure: they are material substances, that is, compounds of matter and form (hylomorphic compounds). Thus, matter and form are thought of as parts or components of material substances. They are parts of a special kind, though. Robert Pasnau calls them ‘metaphysical parts’ and contrasts them with integral parts.¹ Matter and form are called ‘metaphysical parts’ because they are parts that only a metaphysical investigation rather than empirical methods can reveal. Indeed, theoretical assumptions about the change of a substance and its identity are those that mostly reveal its hylomorphic composition. Integral parts by contrast are parts in the ordinary sense of being extended parts. Any material substance is a body, that is, a thing endowed with three-dimensional extension, and therefore, it has integral parts; for example, branches and leaves are integral parts of a plant. For an Aristotelian, however, the ultimate components of a material substance are its metaphysical parts and not its integral parts. For integral parts are themselves compounds of matter and form. For example, both a whole lump of bronze and any of its integral parts, however small, are compounds of matter and form, whereas the matter and form of the whole bronze and of any of its parts are not themselves compounds of more basic entities.

The status of fundamental constituents of the physical world that Aristotle ascribes to matter and form was tacitly accepted by medieval

¹ Pasnau 2011: 6–11.

Aristotelians who did not consider any significant alternatives to Aristotle's hylomorphic model. There was also substantial agreement about some general motivations for positing matter and form as fundamental constituents of the physical world. Still, a great variety of issues internal to hylomorphism were raised and hotly discussed.² Scotus is arguably the medieval philosopher who gave the most sophisticated contribution to these discussions.³

In this chapter, I present Scotus's views on four major issues in the medieval debate about hylomorphism: (1) the existence of matter; (2) the nature of matter; (3) the plurality of forms and (4) the hylomorphic composition of living substances.⁴

I THE EXISTENCE OF MATTER

Like the great majority of medieval philosophers, Scotus maintains that the strongest argument for the existence of matter is the argument from change: it is because the substances of the physical world are subject to change that they contain matter as one of their components. Scotus, however, does not take this common argument for granted. He is aware that it is open to objections and produces forceful additional arguments in its defence. In doing so, he engages in a subtle discussion about the distinction between physical change and creation from nothing.⁵

The argument from change for the existence of matter is based on the distinctive property of matter of being the persistent subject of a substantial change, that is, what remains throughout a change from a substance to a substance of another kind, being first under one of the two opposite forms involved in such a change and then under the other. For example, in the case of a change from water into air, the persistent subject would be something that persists throughout the whole process in which water is transformed into air, and it is under the form of water at the beginning of this process and under the form of air at the end of it. The

² For a concise outline of some major themes of the scholastic debate, see Pasnau 2010.

³ On this assessment of Scotus's contribution, see Ward 2014: 2.

⁴ My presentation of Scotus's views is based on the following primary sources: *Lect.* II, d. 12, q. un., "Utrum in substantia generabili et corruptibili sit aliqua entitas positiva distincta a forma quae dicatur esse materia" (Vat. XIX, 69–101) for sections I and II about matter; *Ord.* IV, d. 11, p. 1, a. 2, q. 1, "Utrum panis convertatur in corpus Christi in Eucharistia" (Vat. XII, 205–270) and *QMet.* VII, q. 20 "Utrum partes organicae animalis habeant distinctas formas substantiales specie differentes" (OPh IV, 381–394) for Sections III and IV about form.

⁵ On Scotus's discussion of the existence of matter, see also Cross 1998: 13–16; Pasnau 2011: 27–29; Ward 2014: 8–18.

crucial point of the argument is then to prove that in a substantial change there is such a persistent subject. Scotus's formulation of this standard argument is as follows:

The first claim (i.e., that matter exists) is proved by the argument of the Philosopher,⁶ which is more effective than the other arguments (although some people disregard it). His argument goes as follows: (i) Every natural agent requires something passive on which the agent acts (this is evident to the senses); (ii) that passive thing on which the agent acts is changed from one opposite to the other opposite; (iii) but one of the opposites does not become the other opposite in such a way that nothing common to each of them remains (e.g., whiteness does not become blackness). (iv) Therefore, just as in an accidental change the agent that changes something moves it from one opposite to the other opposite, in such a way that it remains the same under each of the opposites, so in a generation, the agent of generation must change something from a form to another form in such a way that it remains the same under each of the two forms. That thing is said to be matter.⁷

The first premise (i) of Scotus's argument is a claim about the way in which a natural agent acts in order to bring about a change. It is clearly meant to contrast the action of a natural agent from a divine action of creation from nothing. A natural agent acts on something, that is, it requires a thing on which it acts. For example, when a natural agent like fire produces a change of water into air, it does so by acting on water, which is then the patient in this change, whereas God can produce air starting from neither water nor any other substance, but simply from nothing.

Given this initial premise, one would expect that Scotus argued for the existence of matter as a persisting substrate of substantial changes by showing that matter so understood is required to preserve the 'naturalness' of such changes and distinguish them from productions of things out of nothing. However, this is not exactly the line of argument that Scotus further develops. The connection between the natural character of

⁶ Aristotle, *Phys.* I, 7, 190a13–21.

⁷ Duns Scotus, *Lect.* II, d. 12, q. un., n. 11 (Vat. XIX, 72–73): "Primum ostenditur per rationem Philosophi, quae efficacior est aliis (licet quidam eam contemnunt). Formatur eius ratio sic: omne agens naturale requirit passum in quod agens agit (hoc patet ad sensum); illud passum, in quod agens agit, transmutatur ab opposito in oppositum; hoc oppositum non fit illud oppositum, ita quod nihil commune remaneat utrique (sicut albedo non fit nigredo); sicut igitur in transmutatione accidentali transmutans aliquid movet illud ab opposito in oppositum, manens idem sub utroque oppositorum, ita oportet in generatione quod generans transmutet aliquid a forma in formam, manens idem sub utraque; illud dicitur esse materia."

substantial changes and the existence of a persisting substrate of them remains implicit.

Another line of argument instead appears, one based on an analogy between accidental changes (i.e., changes relative to accidental properties of a substance) and substantial changes (i.e., changes relative to the substances themselves). Both kinds of change are changes between opposites and more specifically between opposite forms: accidental forms, like whiteness and blackness, in an accidental change, and substantial forms, like the form of water and that of air, in a substantial change. A change, however, is not simply a succession of opposite forms, but a succession of opposite forms in a subject. In Scotus's example, it is not the case that whiteness becomes blackness in the sense that whiteness as such comes to be from blackness as such but rather that a white thing comes to be from a black thing, that is, whiteness comes to exist in a subject starting from a subject in which blackness exists. Thus, a change involves not only opposite forms but also a subject. Furthermore, in an accidental change, the subject persists throughout the change: for example, it is one and the same thing that is first black and then white, that is, one and the same subject in which blackness and whiteness exist in succession. In Aristotelian terms, the subject of an accidental change is a substance and this change is a variation in the accidental forms of a substance; but accidental forms do not affect the identity of a substance so that the substance persists throughout any of its accidental changes. The crucial assumption in Scotus's argument is that this account of change as involving a persisting subject is valid for substantial change too: just as in an accidental change, the subject persists throughout the change and takes on opposite forms, similarly in a substantial change there is a subject that persists throughout the change and takes on opposite substantial forms. For example, in the substantial change from water to air, there is a subject that persists throughout this change and is first under the form of water and then under the form of air. Such a persisting subject is matter, as Scotus states in concluding the argument from change.

The assumption of a persisting subject in a substantial change is not as evident and uncontroversial as it would appear from Scotus's argument. Scotus himself admits that it is not universally accepted. He presents an objection to it reflecting the view of some of his contemporaries.⁸ The objection says that the analogy between accidental change and substantial change on which Scotus's argument relies is wrong because nothing

⁸ Ibid., n. 12 (Vat. XIX, 73).

persists throughout a substantial change; rather, the whole initial substance is transformed into the whole final substance. For example, when water is transformed into air, water as a whole, that is, each of its components (both the subject and its substantial form) ceases to exist and air as a whole comes to be from it so that no subject persists throughout this change. Something totally new comes to be as a result of a substantial change.

A serious problem with the view that nothing persists throughout a substantial change is that of saving the assumption that such a change is of a different kind from a divine act of creation out of nothing. These philosophers address this problem by pointing out that the sentence 'something is produced from nothing' is ambiguous because the term 'nothing' can refer either to the starting point of the production or to components or parts of the thing produced so that the sentence can be understood either in the sense that

- (1) An agent starts to produce something absolutely from nothing, that is, *nothing absolutely* is the starting point of the action

or in the sense that

- (2) *Nothing* (no component) *of the thing produced* exists at the starting point of its action.

Sense (1) is stronger than (2): (1) implies (2) but the converse implication is not valid. In our example, the production of air starting from water is not a case of production from nothing in sense (1) because there is something, namely, water, from which this production starts, but in the view defended by these philosophers that nothing persists through this change, it is a case of production from nothing in sense (2). According to these philosophers, the difference between God and a natural agent then is that God can produce something from nothing in both sense (1) and sense (2) but a natural agent can do this only in sense (2), and this is what happens in a substantial change.⁹ This distinction also suggests why these philosophers think that the argument from change presented above is not conclusive. The initial premise (i) about the way a natural agent acts should be interpreted as the negation of (1)—i.e., there is something that is the starting point of the action of a natural agent—but the conclusion reached by the argument is the denial of (2), i.e., there is something of the thing produced that exists at the starting point of the action of a natural

⁹ Ibid., n. 14 (Vat. XIX, 73).

agent. Thus, the argument ultimately relies on the invalid inference from (2) to (1).

Scotus agrees with these philosophers that the claim that only God can produce something from nothing is to be understood in sense (1). However, he objects to the distinction between (1) and (2) by arguing that the two readings are equivalent. It is not only the case that (1) implies (2), but also the converse implication from (2) to (1) holds in the case of a natural agent so that if a natural agent could produce something from nothing of the thing produced then it could also produce it from nothing at all. There is an extra premise that is needed to make the inference from (2) to (1) a valid one. This premise says is that

(P) If an agent can produce an effect E as a whole, then it can also produce it in the absence of anything that weakens its productive power.¹⁰

And, in Scotus's view, the fact that there is a thing on which an agent starts to act to produce another thing is a factor that hinders and weakens its action. His argument for this claim is that the initial thing from which an action starts is contrary to that produced by the agent with its action so that the agent must corrupt the contrary initial thing in order to effect the change, and this is something that weakens that agent's active power. Therefore, if an agent can produce an effect E as a whole (2), then by (P), it can also produce E starting from nothing (1).

Principle (P) seems sound, but its application to the case of a natural agent is not so evident as Scotus thinks it is. The assumption that the existence of something as the starting point of the action of the natural agent is an obstacle to its action is not convincing. One could object that the presence of a starting point is not a hindrance but a requisite of the action of the natural agent. This agent cannot act unless there is something presupposed by its action, and therefore, it is rather the absence of this thing that would hinder its action and not its presence. Scotus's appeal to the notion that the initial thing is contrary to that produced by the agent in support of the claim that the presence of this thing hinders the action of the agent does not seem very helpful either. For, in Aristotle's physics, it is

¹⁰ Ibid., n. 15 (Vat. XIX, 73–74): “Contra: agens quod habet in virtute sua totum effectum, non minus potest producere amoto quocumque quo posito magis debilitatur virtus eius quam fortificetur; sed per te generans habet in virtute sua activa totum effectum, quia nihil eius praesupponit in instanti generationis; igitur generans potest producere genitum amoto quocumque quo posito magis debilitatur virtus eius quam fortificetur. Per actionem autem in contrarium corrumpendum, debilitatur virtus eius activa et non fortificatur; igitur agens naturale amoto quocumque passo potest producere effectum.”

an essential feature of a natural change that it is between contraries, and therefore it is an essential feature of a natural agent of such a change that its action starts with the corruption of a contrary. Scotus, however, does not consider this possible line of attack to his reply.

II THE NATURE OF MATTER

Scotus thinks that the property of matter of being the persisting subject in a substantial change not only provides the strongest argument for the existence of matter but also contains clear indications about its nature.¹¹ In our example of a change from water to air, since matter persists throughout this change whereas the form of water and that of air do not (the first passes away so that it does not exist at the end of the change, and the second comes to be so that it does not exist at the beginning of the change) and these are the only two forms involved in this change, matter must be an entity distinct from any forms: (i) neither itself a form nor containing a form as one of its components. (ii) It must, however, be an entity capable of receiving any forms, that is, a subject of forms. (iii) But since matter remains one and the same entity under different forms, the identity of matter cannot depend on the forms it receives, that is, matter must be an entity in its own right independently of any forms.¹² In Scotus's words, matter is a 'positive entity distinct from a form.'¹³

Matter is commonly characterized as a being in potency, and conditions (i) and (ii) are those condensed under this common description: matter is a being in potency in the sense that matter is something that lacks any forms and is in potency to receiving any forms. Scotus thinks, however, that it is crucial that condition (iii) too be included in the characterization of matter. The being in potency of matter must be such that it is compatible with its being a positive entity in its own right, apart from any forms. To make his point clear, he appeals to a distinction between two notions of being in potency, i.e., being in potency objectively and being in potency subjectively:

For something is said to be in potency in two ways. In one way because it is the terminus of a potency, i.e., that toward which a potency is directed—and this thing is said to be objectively in potency (just as we say that the Antichrist is now in potency and similarly the whiteness that has to be

¹¹ On Scotus's discussion of the nature of matter, see also Cross 1998: 17–33; Ward 2014: 27–40.

¹² Duns Scotus, *Lect.* II, d. 12, q. un., nn. 52–53 (Vat. XIX, 89–90).

¹³ *Ibid.*, n. 1 (Vat. XIX, 60).

generated). In another way, something is said to be in potency as the subject of a potency, that is, that in which there is a potency—and in this way something is said to be subjectively in potency, because it is in potency to something else by which, however, it is not yet perfected (as a surface that has to become white).¹⁴

Scotus's distinction between objective and subjective potency is well illustrated by the example of the surface and its whiteness. Suppose that a surface is now black but will be painted white. The relevant potency in this example is the potency of a surface to whiteness. In Scotus's words, whiteness is the terminus of the potency, i.e., the entity to which the potency is directed, whereas the surface is the subject of this potency, i.e., the entity in which the potency to whiteness exists. 'Being in potency' can be truly predicated both of the whiteness and of the surface, but in different senses: the surface is a being in subjective potency, that is, the subject of the potency, whereas the whiteness is in objective potency, that is, the terminus of the potency.

What is important for Scotus to stress with this distinction is that the terminus of a potency and its subject have different ontological statuses. The terminus of a potency or what is in objective potency is an item that does not exist: it can exist or will exist but does not yet exist; instead, the subject of the potency or what is in potency subjectively is an item that already exists, although it can still acquire some properties. Applying this distinction to the case of matter, Scotus concludes:

Therefore, matter is a being in potency in the second way, that is, as some positive being which is by nature capable of receiving an act and is a being in potency to all the acts that can receive. And in this way matter is a being in potency to a greater extent than the subject of an accident because matter has in itself less actuality and is capable of a greater actuality.¹⁵

It is only subjective potency that is compatible with the status of matter of being a positive entity. For matter is an entity in its own right independently of any forms of which it is receptive just as a subject of accidents is

¹⁴ Ibid., n. 30 (Vat. XIX, 80): "Nam aliquid dicitur esse in potentia dupliciter: uno modo, quia est terminus potentiae, sive ad quod est potentia,—et istud dicitur esse in potentia obiective (sicut Antichristus modo dicitur esse in potentia, et similiter albedo generanda); alio modo, dicitur aliquid esse in potentia ut subiectum potentiale sive in quo est potentia,—et sic dicitur aliquid esse in potentia subiective, quia est in potentia ad aliud, quo tamen nondum perficitur (ut superficies dealbanda)."

¹⁵ Ibid., n. 37 (Vat. XIX, 82): "Est igitur ens in potentia secundo modo, sicut aliquod ens positivum, quod natum est recipere actum et est ens in potentia ad omnes actus quod potest recipere. Et sic est magis ens in potentia quam subiectum accidentis, quia minus in se habens actualitatis et maioris actualitatis capax". See also *ibid.*, n. 42 (Vat. XIX, 84–85).

an entity in its own right independently of the accidental forms of which it is receptive (e.g., the surface with respect to the colours). Thus, the difference between the two kinds of subject is not a difference in kinds of potentiality, that is, it is not the case that a subject of accidents is in subjective potency while matter is in objective potency. The difference is only one of degrees of subjective potentiality: the potentiality of matter is greater than that of a subject of accidents. The gradation in potentiality—as Scotus explains—is determined by an inverse gradation in the actuality associated with it: the substantial forms of which matter is receptive are more ‘actual’ or give ‘more actuality’ than the accidental forms of which a subject of accidents is receptive. Indeed, substantial forms are responsible for the kind of thing that something is whereas accidental forms are only responsible for non-essential/extrinsic properties of a thing.

A serious problem in Scotus’s account of matter as being in subjective potency is that it seems to ascribe incompatible properties to matter. Matter as a positive entity must be something of itself actual in the sense of something that actually exists; but being actual presupposes having a form or being a form, whereas matter is absolutely formless. Thus, while a surface is something of itself actual because it has its own form apart from those of which it is receptive (e.g., it is a two-dimensional extension), matter does not qualify for being something of itself actual because it does not have its own form.

The crucial assumption from which this problem originates is the association of actuality with form so that being actual is equivalent to having a form. This assumption is the cornerstone of Aquinas’s view on the nature of matter:

Everything that is in act either is an act itself or is a potency that participates in an act. But being an act is repugnant to the *ratio* of matter, which according to its own *ratio* is a being in potency. It follows, therefore, that matter can only be in act in so far as it participates in an act. But the act participated by matter is nothing else but a form so that the claims ‘matter exists in act’ and ‘matter has a form’ are equivalent.¹⁶

¹⁶ Thomas Aquinas, *Quaest. de quolibet* III, q. 1, a. 1 “Utrum Deus possit facere quod materia sit sine forma” (Leon. XXV.2, 242, ll. 53–62): “Omne enim quod est actu, uel est ipse actus, uel est potencia participans actum; esse autem actum repugnat rationi materie, que secundum propriam rationem est ens in potencia; relinquatur ergo quod non possit esse in actu nisi in quantum participat actum. Actus autem participatus a materia nichil est aliud quam forma; unde idem est dictu, materiam esse in actu et materiam habere formam.” On Aquinas’s view on matter, see Wippl 2000: 312–327.

Scotus finds that Aquinas's equivalence between existing in act and having a form is not sound, since it implies that matter is not something real. In his interpretation, Aquinas gives to matter the ontological status of something in objective potency, that is, of something in potency to existence, and thus of a non-being, like the whiteness to be generated in a black surface. But this is inconsistent with a number of positive properties that Aquinas himself ascribes to matter, like being the subject of a substantial change.¹⁷ Even more fundamentally, Aquinas's position does not save the common assumption that material substances are composite entities. In Scotus's understanding, this requires that both components of a material substance are genuine entities in their own right, whereas Aquinas's account reduces its material component to a non-being.¹⁸

Despite its serious problems, Aquinas's equivalence between the existing in act of matter and its having a form has a strong intuitive appeal in that it is based on the common characterization of form as the act of matter. If form is the act of matter, doesn't it follow that for matter to exist in act is for matter to have a form? Scotus maintains that this conclusion does not follow. The reason for this is that the term 'act' is used in different senses when we say that form is the act of matter and when we say that matter exists in act:

If you ask whether matter must be said to be an act or not, I reply that I do not want to discuss about names. For if act takes its name from 'to act', then matter is not an act in that way. I say, however, that matter is some true reality, which produces something one when it is joined to the actuality of a form. Thus, if act and potency are taken insofar as they divide being, in this way everything which has its own entity outside its cause is said to be an act, and in this way matter, being a principle and a cause of a thing, is said to be a being in act. But if potency is taken as a principle distinct from the act that a form confers, in this way matter is said to be a potency (and this is the way in which Aristotle speaks about act in *Metaphysics* VII and VIII). For in this way act is distinguished from that which receives the act. And in this way matter is not an act because it is a principle receptive of act and as such must be free of every act.¹⁹

¹⁷ Duns Scotus, *Lect.* II, d. 12, q. un., nn. 31–36 (Vat. XIX, 80–82).

¹⁸ *Ibid.*, n. 49 (Vat. XIX, 88).

¹⁹ *Ibid.*, n. 38 (Vat. XIX, 82): "Si autem quaeras an debeat dici actus aut non, dico quod nolo de nomine disputare. Si enim actus dicatur ab 'agere', sic non est actus. Sed dico quod materia est aliqua realitas vera, quae cum realitate formae facit unum. Unde si actus et potentia accipiantur prout dividunt ens, sic actus dicitur omne illud quod habet entitatem suam extra causam suam,—et sic materia, cum sit principium et causa rei, dicitur ens in actu; si autem accipiantur potentia ut est principium distinctum contra actum informantem,—sic materia dicitur esse potentia (et sic loquitur Philosophus de actu VII et VIII *Metaphysicae*): sic enim actus distinguitur contra illud

Thus, with the claim that matter exists in act we mean that matter is something that actually exists rather than something that is in potency to existence. But this kind of actuality intrinsic to matter as actual being is not that conferred to it by a form. Matter is indeed of itself formless. Matter, however, has its own formless actuality. Because of this formless actuality, matter is something positive, and in particular, the subject of the potentiality (subjective potency) to substantial forms. Thus, a composite substance is not a composite of something purely potential and something actual, as in Aquinas's view. Rather, it is a composite of two items that are both true realities and thus both actual, but their respective actualities are of distinct kinds.

III PLURALITY OF FORMS

While Scotus departs from Aquinas in maintaining that form is not the only actual component in a material substance, he agrees with Aquinas and the other medieval philosophers about the kind of actuality associated to form. According to this common view, a form confers actuality to a substance in the sense that it is responsible either for the kind of thing that a substance is—for its very nature—or for some of its contingent properties. In Aristotelian terms, a form responsible for the nature itself of a substance is called 'substantial form' while a form responsible for a contingent property of it is called 'accidental form'. For example, the soul is a substantial form of a human being because it is responsible for its essential nature of rational animal, whereas the colour of its hair is an accidental form. This common view about form and the distinction between the two kinds of form are well grounded in Aristotle's metaphysics. There is a distinctively medieval controversy, however, about the number of substantial forms in a substance. While the plurality of accidental forms in a substance is commonly admitted—in our example of a human being, the accidental form responsible for the colour of the hair is not the same as that responsible for its being curly—the question of whether there is only one substantial form in a given substance or more than one is matter of great debate. Aquinas is a strong supporter of the unitarian view. He maintains that in every composite substance—from the most simple, i.e., an element, to the most complex, i.e., a human being—

quod recipit actum,—et sic materia non est actus, quia est principium receptivum actus; tale autem oportet esse denudatum ab omni actu."

there is only one substantial form.²⁰ Scotus defends the possibility of a plurality of substantial forms against Aquinas's attack. He argues that Aquinas's unitarian view is based on wrong assumptions about hylo-morphic compounds, and that there is actually a class of substances, namely, the living substances, with more than one substantial form.²¹ This section is devoted to Scotus's reply to Aquinas's unitarian view, while the next one to his pluralist account of living substances.

Aquinas's most powerful line of argument in favour of the unitarian position appeals to a fundamental feature of a material substance on which there is universal agreement, namely, that of being something with a strong unity: something per se one, in medieval terminology. The basic idea here is that a material substance is a composite entity having prime matter and substantial form as its components, but it is not simply the aggregate of its components; rather, it is one thing resulting from them. The strong unity of a substance is commonly contrasted with the weak unity of an accidental compound, that is, an entity composed of a substance and an accidental form of it, for example, the compound of a human being and the colour of her hair: this is not one thing, but the aggregate of two things. It is also commonly assumed that the difference between the strong unity of a material substance and the weak unity of an accidental compound derives from the nature of their respective components. In particular, a substantial form is the kind of thing that can be a component of something per se one, while an accidental form can only be a component of something accidentally one. For Aquinas, however, there is a crucial condition that a substantial form must satisfy in order to be a component of something per se one: it must be itself one. As Aquinas puts it, a substance is per se one because its substantial form is one so that the existence of more than one substantial form in a substance would be incompatible with its per se unity. He illustrates this claim with the example of a human being. If three distinct souls—a vegetative soul, a sensitive soul, and a rational soul—were responsible for the nature of a rational animal, then a human being would not be per se one, since these three forms could not combine to produce something per se one.²²

The intuition of Aquinas here is that the per se unity of a composite substance requires that this substance has only one actual or actualizing component. Thus, the fact that in a composite substance there is (prime)

²⁰ On Aquinas's view, see Wipfel 2000: 327–351.

²¹ On Scotus's view, see also Cross 1998: 47–76; Ward 2014: 76–109.

²² Thomas Aquinas, *Summa theologiae* I, q. 76, a. 3 c.

matter as a component in addition to a substantial form does not spoil its per se unity because, according to Aquinas, matter is absolute potentiality with no actuality of its own. Furthermore, when it is joined to any substantial form, matter becomes completely actual so that no potentiality is left from the union of matter and form. In other words, the actuality conferred by a substantial form does not admit of degrees of completeness. Thus, a composite substance has an absolute unity because its two meta-physical constituents are such that matter is purely potential and its substantial form fully actualizes the potentiality of matter. Accordingly, if a thing composed of matter and a substantial form were to acquire another form, then this thing and that form could not combine in a further thing with absolute unity, because unlike matter, the thing on which this additional form supervenes is something already fully actual, that is, an actual substance.

Scotus thinks that Aquinas's account of the unity of a composite substance is wrong. The most serious problem with it is the assumption that there must be only one component of such a substance that is responsible for its being or actuality. This assumption, in Scotus's view, does not save the status of a composite entity of such a substance and reduces it to a simple entity, an entity with only one component. Appealing to the distinction between simple and composite entities, Scotus points out that it is generally agreed that both a simple entity like an intelligence (i.e., a pure form) and a composite entity like a material substance are one entity so that per se unity is ascribed not only to simple entities but also to composite ones. But if it is commonly conceded that an entity with distinct components has per se unity and so is one being, then it should also be conceded that its being is composed of the beings corresponding to its components. The components of a composite entity are indeed themselves entities and therefore each of them has its own being, and each contributes to the being of the whole.²³ Thus, according to Scotus, Aquinas's account of the unity of a composite substance does

²³ Scotus, *Ord.* IV, d. 11, p. 1, a. 2, q. 1, nn. 249–251 (Wat. XII, 255): “Ad rationes igitur pro prima opinione. Ad primam concedo primam propositionem, quod ‘unius entis est unum ‘esse’”; sed secunda, scilicet quod “unum ‘esse’ requirit tantum unam formam”, neganda est, accipiendo ‘esse’ uniformiter in maiore et minore: sicut enim ens et unum dividuntur in simplex et compositum, ita ‘esse’ et ‘unum esse’, distinguuntur in ‘esse’ tale et tale; ergo ‘esse’ per se unum non determinat sibi ‘esse’ simpliciter, sicut nec aliquod divisum determinat sibi praecise alterum dividendum. Isto modo totius compositi est unum ‘esse’, et tamen includit multa ‘esse’ partialia, sicut ‘totum’ est unum ens et tamen multas partiales entitates habet et includit . . . hoc modo ‘esse’ totius compositi includit ‘esse’ omnium partium, et includit multa ‘esse’ partialia multarum partium vel formarum, sicut totum ens ex multis formis includit illas entitates partiales”.

not work even in the case of a substance with only one substantial form because the matter of such a substance contributes its own being to the whole distinct from the being of its substantial form so that its being is actually a composite of two partial beings.

According to Scotus, therefore, a sound account of the unity of a composite substance, instead of reducing its being to a simple one, should acknowledge that its being is composite. The relevant questions to be answered then become: 'What are the conditions that the partial beings of a composite substance must satisfy for that substance to be *per se* one?' and: 'How can such conditions be satisfied in a substance with more than one substantial form?'. Scotus's answer to these questions goes as follows. Consider first the case of a substance with only one substantial form *F* in addition to matter *M*. What makes this substance one is not, as Aquinas thinks, the condition that matter does not contribute its own being, but the condition that the being contributed by matter is in potency to form *F*. Thus, both *M* and *F* have their own beings, but their beings are such that one is potential to the other. Scotus's idea is that this potency-act model can be extended to the case of a pluri-formed composite. So suppose now that a substance is composed of matter *M* and two substantial forms *F*₁ and *F*₂. With the example of a human being, suppose that *F*₁ is the form of the body and *F*₂ is the soul. This substance has *per se* unity provided that it can be decomposed into two essential parts that are related as potency to act. The two parts would be (i) that composed of matter *M* and form *F*₁ and (ii) and that consisting of form *F*₂. And just like matter *M* is in potency to *F*₁ so the composite of *M* and *F*₁ is in potency to *F*₂. With our example, the composite of matter and the form of a body is a body potentially alive, a body in potency to be made actually alive by a soul-form *F*₂. Thus, in reply to Aquinas's claim that the being of a composite substance derives from a single form, Scotus says:

But if one gives importance to the words, I concede that the total being of the whole composite is principally in virtue of one form, and that form is the one in virtue of which the whole composite is this being, and this is the last form supervening on all the preceding ones. In this way the whole composite is divided into two essential parts, that is, into its proper act, that is, the last form, in virtue of which it is what it is, and into the proper potency with respect to that act, which potency includes first matter with all the preceding forms. In this way I concede that that total being is completed by one form, which gives the whole what it is, but it does not follow from this that exactly one form is included in the whole or that in the whole many forms are not included, but not as specifically constituting that

composite, but as things included in the potential aspect of this composite.²⁴

The crucial assumption in Scotus's account of the unity of a pluri-formed composite is that substantial forms can be ordered in such a way that one is in potency to the other. Being substantial forms, they are all responsible, in some degree, for the specific being of the substance to which they belong, but they are ordered in a hierarchy such that all of them except the last only partially actualize the specific being of a substance and only the last one brings it to completion. The contrast with Aquinas is worth being made explicit. Aquinas assumes that there cannot be substantial forms that contribute only partially to the specific being of a substance because it is in the very nature of a substantial form that it is responsible for its whole specific being. Therefore, once a substantial form comes to exist in matter, the resulting compound is a substance in its own right, in its complete specific being. Any other form coming to exist in this compound would have the status of an accidental form, being a form that supervenes on a complete substance and so could only be responsible for some accidental property of it. As Aquinas puts it, a plurality of substantial forms leads to deny the ground for the distinction between substantial and accidental forms. For Scotus, on the contrary, it is not an essential feature of a substantial form that it is responsible for the whole specific being of a substance so that there can be substantial forms that only partially contribute to it, and therefore, there can be more than one such form in a given substance.

IV THE HYLOMORPHIC COMPOSITION OF LIVING SUBSTANCES

Living substances include plants, non-rational animals, and rational animals, i.e., human beings. Being alive is posited as an essential feature of these substances, and therefore, it is accounted for by a substantial form, which, following Aristotle, medieval philosophers identify with the soul.

²⁴ Ibid., nn. 252–253 (Vat. XII, 255–256): “Si tamen omnino fiat vis in verbo, concedo quod totale ‘esse’ totius compositi est principaliter per formam unam, et illa est forma, qua totum compositum est ‘hoc ens’; illa autem est ultima, adveniens omnibus praecedentibus; et hoc modo totum compositum dividitur in duas partes essentielles: in actum proprium, scilicet in ultimam formam, qua est illud quod est,—et in propriam potentiam illius actus, quae includit materiam primam cum omnibus formis praecedentibus. Et isto modo concedo quod ‘esse’ istud totale est complete ab una forma, quae dat toti illud quod est; sed ex hoc non sequitur quod in toto includatur praecise una forma vel quin in toto includantur plures formae non tamquam specificae constituentes illud compositum, sed tamquam quaedam inclusa in potenciali istius compositi”.

Thus, in the Aristotelian tradition, it is commonly agreed that the soul is a substantial form of a living substance. The controversial question is whether the soul is the only substantial form of such a substance. While Aquinas insists that for living substances too the unitarian model applies, Scotus, and with him many other scholastic philosophers, maintains that this is exactly the class of substances for which the unitarian model is inadequate and a pluralist model instead holds. In his view:

universally in every animate thing it is necessary to posit that form in virtue of which it is a body, distinct from that in virtue of which it is animate.²⁵

Scotus's point can be expanded as follows. A living substance is a body of a special kind: a living body. Accordingly, there are two relevant kinds of essential properties of a living substance, that is, those relative to its being a body and those relative to its being alive. Contrary to what Aquinas thinks, it is not the case that both these properties can be accounted for by just one substantial form, namely, the soul. Rather, its soul is responsible for its being alive, but it is not also responsible for its being a body. What makes it a body is a substantial form distinct from the soul, the so-called form of the body. For example, it is the form of the body that is responsible for the existence of a bodily organ, like an eye, and it is the soul that is responsible for its vital function, for example, for the visual power of an eye. Later in this section, we shall see something more about Scotus's view on the form of the body. Let us first understand why Scotus thinks that we need to posit the form of the body in addition to the soul.

His strongest argument is that such an additional form is necessary to give an adequate account of the kind of change that the death of a living substance involves. When Socrates dies, for example, what is left is his corpse. The intuitive view that Scotus wants to defend is that the corpse of Socrates is actually the body of Socrates so that the body of Socrates remains the same in the passage from life to death: it is the same body that is first alive and then dead. The identity of the body through death, however, requires that there is a form of the body distinct from the soul. For the body remains the same insofar as the substantial form that is responsible for its being a body persists; but the soul does not persist through death, given that the body is no longer alive; therefore, it cannot be the soul that is responsible for its being a body, and so there must be

²⁵ Ibid., n. 280 (Vat. XII, 265): "... universaliter in quolibet animato necesse est ponere formam illam —qua corpus est corpus—aliam ab illa qua est animatum".

another form that is responsible for this.²⁶ Equivalently, if the soul is the only substantial form in Socrates, what persists in the passage from life to death is only the prime matter of Socrates but not also his body; the corpse of Socrates is not the body of Socrates but a body totally different from the body of Socrates, given that the only component that the two bodies share is prime matter. Thus, a unitarian cannot save the intuitive view that the body of a living substance persists through death.

More generally, a unitarian cannot save the common intuition that a living substance is a composite of body and soul as two distinct components. Indeed, Aquinas admits that this common intuition is wrong. Instead, for him, the correct view about the decomposition of a living substance is that this is a decomposition into prime matter and the soul so that there is no body independently of the soul, given that it is the soul itself that in virtue of which the body is the body, and hence a living body.²⁷

Furthermore, a unitarian is forced to postulate a substantial form that is newly produced at Socrates's death, the substantial form responsible for the kind of body that Socrates's corpse is, but—as Scotus argues—a unitarian cannot give a satisfactory account of the coming into being of such a form. For, in the unitarian view, the agent responsible for the death of a living body is also responsible for the production of the form of the corpse; but while it is perfectly plausible that agents of very different kinds can produce death, that is, remove the soul from the body, it is not plausible at all that such different agents can produce completely similar forms of the corpse. With Scotus's example, the corpse of a cow killed with a knife and that of a cow killed by drowning are very similar; how then is it possible that the agents producing the two corpses—the knife and water—are so dissimilar? A unitarian does not have a good answer to this question, according to Scotus.²⁸

Which are exactly the substantial forms in a living substance, according to Scotus? The passage quoted above seems to suggest that there are two such forms: one in virtue of which a living substance is a body, that is, the form of the body, and the other in virtue of which it is living, that is, the

²⁶ Ibid.: "... forma animae non manente, corpus manet. Et ideo universaliter in quolibet animato necesse est ponere formam illam—qua corpus est corpus—aliam ab illa qua est animatum. ... Unde corpus, quod est altera pars <i.e., compositi>, manens quidem in suo 'esse' proprio sine anima, habet per consequens formam qua est corpus isto modo, et non habet animam—et ita illa forma necessario est alia ab anima."

²⁷ Thomas Aquinas, *Summa theologiae* I, q. 76, a. 4, especially arg. 1 et ad 1.

²⁸ Duns Scotus, *Ord.* IV, d. 11, p. 1, a. 2, q. 1, nn. 225–226 (Vat. XII, 246–247).

soul. This is not, however, Scotus's considered view. More precisely, he adopts a unitarian view about the soul, that is, he assumes that the animating form or soul is only one form in all kinds of living substance so that even in the case of a human being there is only one form responsible for all its vital operations (vegetative, sensitive, and rational). He supports, however, a pluralist view about the form of the body: there is not only one substantial form in virtue of which the body of a living substance is the body it is. For the body of a living substance is a highly complex one, containing many specifically different organic parts, for example, flesh, bones, heart, liver, lungs, eyes, and so on. And Scotus finds it odd that just one form could be responsible for this great variety of organic parts.²⁹ He thinks that we should rather posit that each organic part has its own substantial form distinct from that of any other organic part so that, for example, the form in virtue of which the heart is the organic part it is is different from the form in virtue of which the liver is the organic part it is.³⁰ This pluralist view also finds strong support in the fact that different organs have different existential careers. For example, the fact that in the formation of the embryo, the heart is the first organ to be produced can easily be explained if one assumes that the form responsible for the identity of the heart is distinct from that of any other organ.³¹ Similarly, the fact that in the corpse, bones persist much longer than the flesh can easily be explained if one assumes that the form responsible for the identity of bones is distinct from the form responsible for the identity of the flesh.³²

What is then the form of the body to which Scotus refers in the passage quoted above and in many other occasions? Is it just the collection of the substantial forms of the organs? Or is it rather another bodily form that supervenes on the collection of organs?³³ Scotus does not devote to these questions the attention they would have deserved and leaves them without an explicit answer. It is not surprising that his scattered remarks on this topic have given rise to diverging interpretations. According to one of them, that of Richard Cross, there is a form of the body over and above the forms of the organs;³⁴ according to the other one, that of Thomas Ward, there is not such a form so that the forms of the organs are entirely responsible for the body of a living substance.³⁵

²⁹ Duns Scotus, *QMet.* VII, q. 20, n. 31 (OPh IV, 387). ³⁰ Ibid., n. 11 (OPh IV, 382).

³¹ Ibid., n. 38 (OPh IV, 389–390). ³² Ibid., n. 15 (OPh IV, 383).

³³ For Scotus's formulation of these alternatives, see *ibid.*, n. 19 (OPh IV, 383–384).

³⁴ Cross 1998: 68–71. ³⁵ Ward 2014: 90–93.