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Duns Scotus's ontology is fairly densely populated with individual things or entities.<sup>1</sup> For example, within any individual material substance, we will on Scotus's analysis typically find individual prime matter, individual substantial form, individual quantity, individual quality, and a set of individual relations cementing these various entities into a unified whole.<sup>2</sup> Each of these individual entities is really distinct from any of the others.<sup>3</sup> Of these entities, Scotus holds that the

<sup>1</sup> I use the following abbreviations in this article. For works of Scotus: *Ord.* (*Ordinatio*), *Lect.* (*Lectura*), *Quod.* (*Quodlibetal Questions*), *In Met.* (questions on Aristotle's *Metaphysics*); for works of Aristotle: *Met.* (*Metaphysics*), *Phys.* (*Physics*). I also refer to the *Sentence* commentary of William of Ware, abbreviated as *In Sent.* The following sigla refer to manuscripts: A (Assisi, Biblioteca Comunale, MS 137 [Scotus, *Ord.*]); B<sub>1</sub> (Balliol College, Oxford, MS 206 [Scotus, *Lect.*]); B<sub>2</sub> (Balliol College, Oxford, MS 234 [Scotus, *In Met.*]); F (Florence, Biblioteca Laurenziana, MS Lat. Plut. 33 Dext. 1 [William of Ware, *In Sent.*]); M (Merton College, Oxford, MS 103 [William of Ware, *In Sent.*]). In the Latin texts and English translations, I enclose respectively in pointed and in square brackets material inserted by myself.

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<sup>2</sup> For prime matter and substantial form, see *Lect.* 2.12, nn. 49, 58, 68, *Opera Omnia*, edited by C. Balić and others (Vatican City 1950-), XIX, 88, 91, 95; for substance and the accidents of quality and quantity, see *Quod.* 3, n. 3, *Opera Omnia*, edited by Luke Wadding, 12 vols (Lyons: Durand, 1639), XII, 67; English translation (based on a critical text prepared by Felix Alluntis), *God and Creatures. The Quodlibetal Questions*, edited by Felix Alluntis and Allan B. Wolter (Princeton and London), p. 62 (par. 3.12). On relations, see *Ord.* 2.1.5, n. 200 (Vatican edition, VII, 101-2).

<sup>3</sup> According to Scotus, separability is a necessary and sufficient condition for real distinction: see for example *Ord.* 2.1.5, nn. 200-4 (Vatican edition, VII, 101-3). Scotus is clear that it is (logically) possible for prime matter, substantial form, quality and quantity all to exist separately (for prime matter, see *Lect.* 2.12, nn. 47-48 [Vatican edition, XIX, 87-88]; for substantial form, see *In Met.* 7.15, n. 8 [Wadding edition, IV, 719<sup>a</sup>]; for the accidents of quality and quantity, see *Ord.* 4.12.1, n. 5 [Wadding edition, VIII, 711]). Equally, Scotus is clear that substance and non-relational accidents (i.e., quality and quantity) can exist separately from any categorical relations which might pertain to them (*Ord.* 2.1.5, nn. 200, 205 [Vatican edition, VII, 101-104]). Since it is logically possible for this prime matter and this substantial form to exist without constituting this substance, we can conclude that this

essential constituents of a material substance are prime matter and substantial form. I want to look at the following question: In what sense do prime matter and substantial form, when united, constitute material substance? This question can be construed in two different but importantly related senses. (1) In what sense do individual prime matter and individual substantial form constitute an individual substance? (2) In what sense do prime matter as such (i.e., the essence or quiddity of prime matter)<sup>4</sup> and substantial form as such (i.e., the essence or quiddity of substantial form) constitute composite essence as such (i.e., the essence or quiddity of composite substance)?<sup>5</sup> (In each of these uses, the terms 'substantial form', 'composite substance', and 'composite essence' are to be understood as glossed by 'of such-and-such a kind'.)

In what follows, we shall see Scotus's answers to both these questions. But he does not always distinguish between them. There is a good reason for this. Scotus holds that individual substance is really identical with the essence which it instantiates. Since the essence instantiated by a substance—which of course determines *everything* about the kind of thing the substance is<sup>6</sup>—is really identical with the substance, there is an exact correlation between the mereology of essence as such (in terms of its really distinct components) and the mereology of an individual substance (in terms of its really distinct components).<sup>7</sup> Thus, if essence as such is a composite of really distinct

substance is really distinct from this prime matter and this substantial form. This distinction will be the topic of this paper. For other brief accounts of the principal issue addressed in this paper, see Tamar M. Rudavsky, *The Doctrine of Individuation in Duns Scotus*, in: Franziskanische Studien, 59 (1977), 320-77 and 62 (1980), 62-83 (p. 349-52); Costantino Marmo, *Ontology and Semantics in the Ontology of Duns Scotus*, in: Umberto Eco and Costantino Marmo (eds.), *On the Medieval Theory of Signs*, Amsterdam-Philadelphia 1989, 143-93 (p. 156-7); Prospero Stella, *L'ilemorfismo di G. Duns Scoto*, Turin 1955, p. 147-63 (Pubblicazioni del Pontificio Ateneo Salesiano. II. Testi e studi sul pensiero medioevale, 2).

<sup>4</sup> Scotus claims unequivocally that prime matter has an essence or quiddity: see for example *Ord.* 2.3.1.5-6, nn. 138, 187 (Vatican edition, VII, 462, 483); *Ord.* 3.22, n. 7 (Wadding edition, VII, 443); *Met.* 7.15, nn. 3, 5-6 (Wadding edition, IV, 717<sup>b</sup>, 718<sup>a-b</sup>).

<sup>5</sup> In the texts which I discuss in this article, Scotus uses the terms '*quidditas*', '*essentia*', '*natura (communis)*', and '*quod quid est*' interchangeably. In what follows, I translate all of these terms as 'essence'.

<sup>6</sup> See *Ord.* 2.3.1.5-6, nn. 181-82, 197 (Vatican edition, VII, 480-1, 488-9).

<sup>7</sup> By 'really distinct components' here, I mean to pick out matter, form, relation, and non-relational accidents. I do not mean, for example, individual material parts, or parts of a spatially extended continuum. The unity of a complex organic body is in fact something which Scotus will have some trouble with: see below, note 16. On the

parts, then an individual substance instantiating that essence is a composite of the same really distinct parts.

Despite holding that an individual substance is *really* identical with its essence, Scotus does not hold that an individual substance is *in every way* identical with its essence. He argues that any individual entity (including a composite substance) can be analysed into two really identical ‘components’: essence and individuating feature. These two components, unlike the entitative components of a substance, are not really distinct from each other; they are rather what Scotus labels ‘formally distinct’: really identical, but susceptible of definition independently of each other.<sup>8</sup>

other hand, in no case does Scotus hold that a spatially extended continuum is *composed* of its parts: see *Lect.* 1.17.2.4, n. 221 (Vatican edition, XVII, 252). According to Scotus, for a unity *composed* of parts, we need an analysis in terms of act and potentiality, such that one part is actual, and the other potential. (By ‘act’ and ‘potentiality’, Scotus means to pick out two entities, one of which [viz., act] is apt to be received by, or to inhere in, the other [viz., potentiality]). On the whole issue, see (S1) in section four below.

<sup>8</sup> For Scotus’s formal distinction, see *Ord.* 1.8.1.4, n. 193 (Vatican edition, IV, 261-2). For a thorough discussion, see Maurice J. Grajewski, *The Formal Distinction of Duns Scotus. A Study in Metaphysics*, Washington D.C. 1944 (The Catholic University of America Philosophical Series, 90). For a more rigorous presentation, see the account by Marilyn McCord Adams, *Universals in the Early Fourteenth Century*, in: Norman Kretzmann, Anthony Kenny, J. Pinborg, and Eleonore Stump (eds.), *The Cambridge History of Later Medieval Philosophy*, Cambridge 1982, 411-29 (p. 412-17); also Allan B. Wolter, *The Formal Distinction*, in: John K. Ryan and Bernardine M. Bonansea (eds.) *John Duns Scotus, 1265-1965*, Washington D.C. 1965, 45-60, (Studies in Philosophy and the History of Philosophy, 3), reprinted in Allan B. Wolter, *The Philosophical Theology of John Duns Scotus*, edited by Marilyn McCord Adams (Ithaca-London 1990), 27-41. For the relevance of Scotus’s formal distinction to his account of individuation, see *Ord.* 2.3.1.1, n. 32 (Vatican edition, VII, 403); *Ord.* 2.3.1.5-6, nn. 179-80, 192 (Vatican edition, VII, 479, 486). On Scotus’s account of individuation in general, see *Ord.* 2.3.1 passim (Vatican edition, VII, 391-516); also Marilyn McCord Adams, *Universals in the Early Fourteenth Century*, p. 412-7; Tamar M. Rudavsky, *The Doctrine of Individuation in Duns Scotus*; Allan B. Wolter, *Scotus’s Individuation Theory*, in: *The Philosophical Theology of John Duns Scotus*, 68-97; Allan B. Wolter, *John Duns Scotus*, in: Jorge J.E. Gracia (ed.), *Individuation in Scholasticism. The Later Middle Ages and the Counter-Reformation 1150-1650*, Albany 1994, 271-98; Woosuk Park, *The Problem of Individuation for Scotus: A Principle of Indivisibility or a Principle of Distinction?*, in: *Franciscan Studies*, 48 (1988), 105-23. Scotus’s basic account of individuation makes it clear that what is at issue is the indivisibility of a concrete entity into what he labels ‘subjective parts’ (*Ord.* 2.3.1.2, n. 48 [Vatican edition, VII, 412-13]; *Ord.* 2.3.1.4, n. 76 [Vatican edition, VII, 426-7]). What he is getting at is that, unlike an essence, an individual is a non-repeatable item: and it is this non-repeatability which, for Scotus, requires explaining. Scotus’s account of the real distinction between prime matter, substantial form and non-relational accidents (i.e., quality and quantity) would seem to entail that each of these is individuated independently of any of the others. This is clearly the case for composite substance and its accidents (*Ord.* 2.3.1.4,

Since my task is exegetical, it will not always be possible to keep the two questions raised above separate, and I sometimes deliberately chose ways of speaking which draw attention to the fact that Scotus is in at least some passages providing an answer to both of the questions. In this way, I shall try to remain reasonably faithful to my Scotist sources. On the other hand, wherever possible I shall try to keep the two questions separate. I shall talk of issues raised under the first question in terms of individual matter, individual form, and (when relevant) relational entity constituting an individual substance; and of issues raised under the second question in terms of matter as such, form as such, and (when relevant) relational property constituting essence as such. When I wish to refer indifferently to both the questions, I shall speak in terms of matter, form, relation (when relevant), and substance. Likewise for the terms ‘nature’ and ‘quiddity’. When I speak of ‘matter’, ‘form’, ‘substance’, and ‘essence’, I understand thereby *prime* matter, *substantial* form, *composite* (material) substance, and *composite* (material) essence, unless I specify some different meaning.

I shall sometimes (for convenience) talk of a position’s being ‘Aristotelian’. By this, I mean to draw attention to one or more of

n. 89 [Vatican edition, VII, 433-4]). Likewise for prime matter and substantial form. “Omnis entitas quidditativa—sive partialis sive totalis—alicuius generis, est de se indifferens, ut entitas quidditativa, ad hanc entitatem et illam, ita quod, ut entitas quidditativa, est naturaliter prior ista entitate ut haec est, et ut prior est naturaliter, sicut non convenit sibi esse hanc, ita non repugnat sibi ex ratione sua suum oppositum; et sicut compositum non includit suam entitatem (qua formaliter est hoc) in quantum natura, ita nec materia—in quantum natura—includit suam entitatem (qua est haec materia), nec forma—in quantum natura—includit suam”. *Ord.* 2.3.1.5-6, n. 187 (Vatican edition, VII, 483); see also *Ord.* 2.3.1.4, n. 114 (Vatican edition, VII, 447); *Ord.* 2.3.1.5-6, nn. 138-40, 211 (Vatican edition, VII, 462-63, 494); see also Grajewski, p. 152. The passage just quoted seems to suggest that the composite substance constituted by individual prime matter and individual form is individuated independently of the individuation of its two necessary parts: and this seems to be a supposition made throughout Scotus’s discussion of the individuation of composite substance. The reason is that the essence of a composite substance is a quiddity, and ‘every quiddity is communicable’ (*Ord.* 2.3.1.7, nn. 227-28 [Vatican edition, VII, 500]). If Scotus really means that a composite substance is individuated independently of its two necessary parts, then he would seem to have made a mistake. It is surely impossible for something which is composed of non-repeatable parts to be a repeatable essence. Thus, I would argue that the individuation of the parts is a sufficient condition for the individuation of the whole. Perhaps Scotus’s point is just that a whole composite essence is a quiddity, and that as such it requires some kind of individuation, where this individuation could be completely accounted for by the individuation of the parts.

three possible claims, each of which looks to be Aristotelian: (1) a meaningful distinction can be made between an essential property and an accidental property; (2) a meaningful distinction can be made between substantial unity and accidental unity; (3) matter and form can reasonably be labelled material and formal *causes*. It does not especially matter whether these claims can actually be found in Aristotle.<sup>9</sup> They look to me, however, to be assumptions with which the schoolmen would be happy, and which the schoolmen would be happy to see as Aristotelian.

### 1. *Introduction: substance and unity*

Scotus's account of the union of matter and form to constitute composite substance (having matter and form as parts) is strongly anti-reductionistic: it is not true, on his account, that substance is identical with its parts, or that substance is merely the aggregate of its parts. I shall label Scotus's account R'. Scotus opposes his account to four different reductionist accounts: R1: composite substance is just the aggregate of all its non-relational parts (viz., matter and form); R2: composite substance is just the aggregate of all its non-relational and relational parts (viz., matter, form and the relation existing between them); R3: substance is just form; R4: substance is just matter. In this article, I shall be interested primarily in R1 and R2. Scotus rejects R3, according to which matter is at best accidental to substance,<sup>10</sup> since he holds (1) that it violates all of the Aristotelian claims listed above (claims which Scotus believes to be true),<sup>11</sup> and (2) that it entails denying that there could be natural generation and corruption.<sup>12</sup> Scotus

<sup>9</sup> It looks to me as though the first claim can be found in Aristotle's explorations in *Met.* 7.4, the second claim in *Met.* 5.6, and the third in *Phys.* 2.3.

<sup>10</sup> For Scotus's account of R3, see *Ord.* 3.22, n. 3 (Wadding edition, VII, 441-2). According to the marginal annotation in the Wadding edition, this position is to be attributed to Albert the Great. The annotators do not, however, suggest a passage: and in his commentary on the *Sentences*, 3.22.1 ad 1, Albert clearly rejects an identification of substantial form with essence (*Opera Omnia*, edited by S.C.A. Borgnet, 38 vols [Paris: Vivès, 1890-99], XXVIII, 385<sup>b</sup>-386<sup>a</sup>). For some of the ambiguities and difficulties in Albert's use of the terms 'form' and 'essence', see Georg Wieland, *Untersuchungen zum Seinsbegriff im Metaphysikkommentar Alberts des Großen*, Münster [Westfalen] 1971, pp. 18-40 (Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters, N.F., 7).

<sup>11</sup> See *Ord.* 3.22, nn. 5-8 (Wadding edition, VII, 443-44).

<sup>12</sup> See *Ord.* 3.22, n. 9 (Wadding edition, VII, 445); also *Lect.* 2.12, nn. 11-16 (Vatican edition, XIX, 72-74).

rejects R4, according to which form is merely something like matter's mode of organization,<sup>13</sup> since he holds that it entails that form is the same species of thing as matter, and consequently—since matter is just of one species—that all forms are of just one species: a claim which Scotus holds to be false.<sup>14</sup>

I will not consider R3 and R4 any further, since Scotus construes both theories to deny that substances have really distinct parts of the relevant type (viz., matter and form). On R1 and R2, a substance will have such really distinct parts, such that the parts *constitute* the whole. As we shall see, Scotus holds that both R1 and R2 amount to the claim that a composite substance is the aggregate of its parts. But R2 is distinguished from R1 just because R2 allows that the *relation* between the non-relational parts (matter and form) is itself a part of the whole.

Clearly, a term such as 'whole' is fairly ambiguous: we are usually prepared to use it in all sorts of ways, some of which entail far closer unities than others. I am moderately happy, for example, to talk about a whole bundle of sticks, a whole deck of cards, a whole black sheep, a whole cat, a whole angel, the whole divine nature. These more or less natural usages correspond to different usages of 'unity' which Scotus is prepared to allow:

- (1) The unity of aggregation
- (2) The unity of order
- (3) Accidental unity
- (4) Substantial unity (viz., the unity of a substance composed of really distinct parts)
- (5) The unity of simplicity (viz., the unity of a substance composed of merely formally distinct parts)
- (6) Formal unity (viz., unity which has no parts at all, either really distinct or formally distinct).<sup>15</sup>

I shall label these different types of unity respectively 'unity<sub>1</sub>', to 'unity<sub>6</sub>'. The relevant unity for our purposes is unity<sub>4</sub>. As Scotus discusses unity<sub>4</sub> in relation to composite substance, it is clear that there are two distinctions at stake. The first is rather difficult to spell out. Roughly, at issue is how to distinguish between (1) the whole which

<sup>13</sup>According to the editors of the Vatican edition, R4 can be attributed to Richard of Middleton, *Quaestiones Disputatae*, 17: see Vatican edition, XIX, 77-78.

<sup>14</sup> *Lect.* 2.12, n. 56 (Vatican edition, XIX, 90).

<sup>15</sup> *Ord.* 1.2.2.1-4, n. 403 (Vatican edition, II, 356-7).

consists merely of the *aggregate* of matter and form (and, on R2, relations), and (2) the whole which is a *composite* of matter and form: where satisfying the conditions for (2) cannot consist merely in adding some further item to the aggregate of matter and form (and relation), and where satisfying the conditions for (2) will include satisfying the condition that the whole is some entity really distinct both from its parts and from the aggregate of them. Thus, on (2) a whole is more than just its parts. I shall label this distinction ‘substance-distinction<sub>1</sub>’. How Scotus understands this distinction will emerge fully in the final section of this paper. The second distinction is that between an accidental collection of items and a substance. I shall label this distinction ‘substance-distinction<sub>2</sub>’. Thus, at issue in substance-distinction<sub>1</sub> is how to provide a principled distinction between unity<sub>1</sub> and unity<sub>4</sub>. At issue in substance-distinction<sub>2</sub> is how to provide a principled distinction between unity<sub>3</sub> and unity<sub>4</sub>. Scotus is clearly committed to both of these distinctions: though it looks to me as though substance-distinction<sub>1</sub> has more metaphysical import. In what follows, I shall indicate if an argument is relevant to substance-distinction<sub>2</sub>; otherwise, I shall assume that what is under discussion is substance-distinction<sub>1</sub>. Scotus attempts to show that adopting either R1 or R2 will fail to provide the tools for an account of substance-distinction<sub>1</sub>.

Finally, it is worth noting a little about the context of the argument. The discussions mostly occur in the context of a consideration of the unity of a human composite. A human composite, according to Scotus, consists of prime matter, bodily form, and intellective soul. Prime matter together with bodily form constitute the body.<sup>16</sup> Scotus’s professed aim is to show how body and soul constitute one substance. But, as a perusal of the texts quoted in the notes below will show,

<sup>16</sup> On the plurality of forms in a human being, see *Ord.* 4.11.3, nn. 25-57 (Wadding edition, VIII, 629-54). Scotus accepts that an animate thing has two forms: the bodily form and the soul. But he regards it as ‘probable’ that there are some other forms as well. He reasons that the organs of a complex body are specifically different from each other in virtue of different substantial forms: see *Ord.* 4.11.3, n. 46 (Wadding edition, VIII, 649). If there are such forms, then, Scotus holds, they will be ordered to the bodily form: they are all actual with regard to matter, and potential with regard to the bodily form (*Ord.* 4.11.3, n. 4 [Wadding edition, VIII, 646]). On the other hand, it is difficult to see how the forms of the different organs are ordered to *each other* (say, in terms of potentiality and act): they are the forms of *different* material parts of the composite. Presumably, then Scotus will grant that a necessary condition for the unity of an animate composite is that the various organic forms are all actual with regard to the same matter, and potential with regard to the same bodily form. In the texts I shall discuss, Scotus ignores this difficulty, and I shall follow him in so doing.

Scotus holds that exactly the same problem holds for the unity of matter and form.<sup>17</sup> Since the unity of matter and form is the standard case—obtaining in the case of every material substance—I will concentrate on this issue. But we should also bear in mind that the same kinds of arguments hold for the non-standard case of the unity of human body with intellective soul.

## 2. *R1: composite substance is the collection of all its non-relational parts*

Even though the whole is other than the parts, or from each part separately, it is not however other than all the parts at once.<sup>18</sup>

The whole is [not] another being than all the parts conjunctively.<sup>19</sup>

Scotus attributes this opinion to Averroes.<sup>20</sup> The parts at issue are non-relational parts: specifically, matter and form. Thus, Scotus consistently discusses R1 as though it entails that the conjunction of the non-relational parts does not add any further entity to these parts. There is, of course, a number of ways in which R1 might be developed: depending upon what exactly the *relation* between matter and form should be understood to be. This question will itself depend on a general account of what it is to be a relation. Scotus, for example, understands a relation between two entities—say, their union or conjunction—to be itself a thing or entity which would count as part of a whole. A relation is what Scotus would label a ‘relational’ entity: the kind of entity which is necessarily dependent on the existence of the terms of the relation.<sup>21</sup> Granted that necessarily a relation (say, of union or conjunction) is a thing which would count as part of a whole,

<sup>17</sup> Furthermore, perusal of the quoted texts will make it quite clear that Scotus is concerned with *prime* matter. The forms of air and fire are common examples of forms employed by Scotus in his discussions: and the forms of such elements were held to inhere directly in prime matter.

<sup>18</sup> “Licet totum sit aliud a partibus sive a qualibet parte seorsum, non tamen ab omnibus partibus simul”. *Ord.* 3.2.2 (A, fol. 144<sup>rb</sup>; Wadding edition, VII, 75 [n. 6]).

<sup>19</sup> “Totum <non> sit ens aliud ab omnibus partibus coniunctim”. *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]).

<sup>20</sup> In his large commentary on Aristotle’s *Physics*, Averroes claims, with reference to the material parts of a substance: “Totum enim nihil aliud est quam congregatio partium” (see *Aristotelis Opera cum Averrois Commentaria*, 11 vols [Venice: Iuntae, 1550], IV, fol. 7<sup>va</sup> [n. 17]).

<sup>21</sup> See Mark G. Henninger, *Relations. Medieval Theories 1250-1325*, Oxford 1989, ch. 5.



R1 should be rejected, since it entails the denial of this claim. But R1 could make perfect sense on a different account of relations. R1 could easily be held by someone who believed a relation to be a mode, or an intention, or indeed anything which could not be meaningfully called a *part* of some whole, or an item contained within some whole. And there were plenty of possible takers amongst the Schoolmen for claims such as these.<sup>22</sup> Scotus, however, does not capitalize on his account of relations to criticize R1. His arguments are all intended to show merely that union must *in some sense* involve more than just the two (non-relational) parts: while remaining neutral on just what needs to be added to the two non-relational parts to allow them to constitute a whole. (I shall follow Scotus in labelling non-relational parts and properties ‘absolute’ parts and ‘absolute’ properties.)

As understood by Scotus, R1 amounts to the following claim:

(A) An individual substance is merely the aggregate of all its individual absolute parts.

Scotus’s basic argument against R1 is that it cannot allow a clear account of substance-distinction<sub>1</sub>:

(R1’.1) (P1) An individual substance exhibits a unity at least as great as unity<sub>3</sub>.

(P2) Something exhibiting unity<sub>3</sub> is more than the aggregate of all its individual absolute parts.

(C1) An individual substance is more than the aggregate of all its individual absolute parts ([P1] and [P2]).

(P3) If R1, then an individual substance is merely the aggregate of all its individual absolute parts.

(C2) Not R1 ([C1] and [P3]).

(P1) and (P2) are Aristotelian,<sup>23</sup> as Scotus makes clear. (P3) relies on Scotus’s assessment of what R1 amounts to. But someone who held a non-entitative account of relations might regard (P3) as fairly misleading. On such an account, the only *parts* that a substance has might be its matter and form; but this would not entail that a substance was merely the aggregate of its parts: viz., it would not

<sup>22</sup> See Henninger, *Relations*, for a discussion of a number of different medieval theories.

<sup>23</sup> For (P1), see *Met.* 8.6 (1045a8-10); for (P2) see *Met.* 7.12 (1037b15-17).

entail (A). In any case, someone accepting (A) might regard both (P1) and (P2) as false.<sup>24</sup>

(R1'.2) (P1) If (A), then the *terminus ad quem* of generation is either individual matter or individual form.

(P2) The *terminus ad quem* of generation is neither individual matter nor individual form.

(C) Not (A).

(P1) is justified on the grounds that the end term of generation must be some really existing entity. (P2) is justified by the claim that it is at least possible that a substance be generated from pre-existent matter and pre-existent form. Scotus appeals to the resurrection of the body, where on medieval accounts a composite is produced from two individual pre-existent parts: its body and its soul.<sup>25</sup> This argument and the following would seem to present any adherent of (A) with some difficulties: and any adherent of R1, where R1 is understood to entail (A).<sup>26</sup>

(R1'.3) (P1) If (A), then it is not possible that an individual substance be destroyed while both its parts still exist.

<sup>24</sup> "Ostendo quod totum sit ens aliud ab omnibus partibus coniunctim et divisim. Probo quia alias non esset distinctio totius vel unius: 8 metaphysicae v<sup>a</sup>, ubi dicitur quod totum vel unum aliud quod est per se unum, aliud totum quod est unum aggregatione ut cumulus vel acervus, et istud totum secundum est suae partes tantum. Consequens inconueniens videtur: tum ex 8 metaphysicae, tum quia etiam unum per accidens est magis unum quam illud aggregatione unum, et minus unum quam totum unum per se, et tamen totum unum per accidens non est suae partes tantum, quia (secundum philosophum 7<sup>o</sup> metaphysicae c. de unitate definitionis) in hoc est homo albus unum aliquid, quia albedo inest homini; non igitur esset tale totum unum si non informaret". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]).

<sup>25</sup> As shown above, Scotus holds that it would be logically possible for a non-subsistent form to be kept in existence separately from any matter: and presumably that it could be united with some existing matter. Scotus could appeal easily to this claim in order to justify (P2) more effectively.

<sup>26</sup> "Per se terminus ad quem generationis est aliquid habens entitatem propriam, quia generatio est ad esse proprii termini. Sed totum est primus terminus ad quem generationis, non altera pars. Immo si utraque pars praeexistat et de novo unirentur nihilominus esset generatio vel productio ipsius compositi, sicut in resurrectione. Dato quod tam anima quam corpus praeexisterent secundum suas entitates, adhuc fieret resuscitatio totius compositi—non autem ad esse corporis et animae, nec ad ambo ista. Igitur ad aliquod tertium aliud ab istis". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]).

- (P2) It is possible that an individual substance be destroyed while both its parts still exist.  
 (C) Not (A).

(P1) seems true. (P2) is justified by generalizing the Aristotelian argument<sup>27</sup> that the two letters ‘a’ and ‘b’ of the syllable ‘ab’ can remain even if the syllable itself no longer exists. The relevant parts here are, of course, matter and form.<sup>28</sup>

(*RI*’.4) (P1) This individual matter cannot be the material cause of itself or of this individual form; this individual form cannot be the formal cause of itself or of this individual matter.

(P2) This individual matter is the material cause of some individual entity; this individual form is the formal cause of some individual entity.

(C1) This individual matter and this individual form are the material and formal causes of some individual composite entity ([P1] and [P2]).

(P3) If (A), there is no such individual composite entity.

(C2) Not (A) ([C1] and [P3]).

(P1) is a basic metaphysical principle: neither matter nor form has either a material or a formal cause. If (P3) is true, then the truth of (A) would entail that (P2) is false: where the precise claim would be: This matter is not the material cause of some entity, and this form is not the material cause of some entity. (I have put [*RI*’.4], as will be obvious, in a rather abbreviated way.) And the falsity of (P2), thus construed, does not look very plausible. But is (P3) true? We could answer affirmatively only if we stipulated that an entity exhibiting unity<sub>1</sub> *could* not count as an individual composite entity: which looks question-begging. Thus, an adherent of (A) could perhaps claim that some entity exhibiting merely unity<sub>1</sub> would satisfy the requirements of (C1): meaning that (P3) is false. But (*RI*’.4) would at least show that

<sup>27</sup> *Met.* 7.17 (1041b11-17).

<sup>28</sup> “Potest argui a simili, vel assumi, de corruptione, secundum argumentum Philosophi 7 Metaphysicae in fine, quia manet ‘a’ et ‘b’ et non manet ‘ab’: et idem realiter non potest manere et non manere. Igitur ‘ab’ est aliud realiter ab ‘a’ et ‘b’. Igitur cum ita sit in omnibus compositis per se quod rationi partium non repugnet ut illae maneant, et totum non maneat, aliqua erit entitas propria ipsius totius alia ab entitate partium”: *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]). As shown above, Scotus argues that both matter and form can exist independently of each other.

the adherent of (A) would be forced to give a non-standard account of what it is to be a material or formal cause.<sup>29</sup>

(R1'.5) (P1) If (A), then proper passion, operation and accident would inhere either in individual matter alone, or in individual form alone, or in some aggregate of these two parts.

(P2) Proper passion, operation and accident do not inhere in individual matter alone, or in individual form alone, or in some aggregate of these two parts.

(C) Not (A).

(P1) is clearly true. (P2) is a metaphysical principle which is central to any non-reductionist account of substance. I will defer a discussion of it to the final section. Like (R1'.2) and (R1'.3), the argument turns on at least some of the properties of the whole being different from any of the properties of the parts.<sup>30</sup> Of course, an adherent of (A) could claim that the properties of the whole are different from those of the parts: in the last section of this article I will suggest a clear metaphysical principle, which Scotus seems to accept, which will perhaps allow a clear account of substance-distinction<sub>1</sub>.

### 3. R2: composite substance is just the collection of all its non-relational and relational parts

R2 is held by William of Ware.<sup>31</sup> William reasons that, if R1 were true, then it would be impossible to give an account of the union of the parts of a composite substance. He argues as follows.

<sup>29</sup> "... Alias nihil esset per se causatum a causis intrinsicis, scilicet materia et forma. Quod enim istae causae causent hoc compositum patet, quia istae causae sunt partes causati: sed istae non sunt partes neque alterius earum neque ambarum, quia neutra est causata, neque ambae, quia sunt primae causae et prima principia rei. Igitur etc.". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]).

<sup>30</sup> "Sequeretur...quod nullum ens esset cui per se inesset propria passio et propria operatio, vel quodcumque accidens proprium, quia ista insunt speciei, nec insunt materiae nec formae eius nec utrique simul nisi ut sunt unum in aliquo toto per se". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 76 [n. 7]).

<sup>31</sup> On William of Ware, See A. Daniels, *Zu den Beziehungen zwischen Wilhelm von Ware und Johannes Duns Scotus*, in: *Franziskanische Studien*, 4 (1917), 221-38; Joseph Lechner, *Die mehrfachen Fassungen des Sentenzkommentars des Wilhelm von Ware, O.F.M.*, in: *Franziskanische Studien*, 31 (1949), 99-127; Gedeon Gál, *Gulielmi de Ware, O.F.M. Doctrina Philosophica per Summa Capitula Proposita*, in: *Franciscan Studies*, 14 (1954), 155-80, 265-92; Ludwig Hödl, *Untersuchungen zum scholastischen Begriff des Schöpfersichens in der Theologie des Wilhelm von Ware OM*, in: Burkhard Mojsisch and Olaf Pluta (eds.), *Historia Philosophiae Medii Aevi. Studien zur Geschichte der Philosophie des Mittelalters*, 2 vols. Amsterdam 1992, 387-408.

- (R1'.6) (P1) If two individual absolute entities are necessarily united to each other, then they are parts of some whole such that it is not possible for them to be separated from each other.  
 (P2) It is possible for two individual absolute parts [viz., matter and form] to be separated from each other.  
 (C) It is not the case that two individual absolute entities are necessarily united to each other.

(P1) looks reasonable, and (P2) would be accepted by all the schoolmen as a standard account of corruption.<sup>32</sup> As we shall see, William reasons from the conclusion to the claim that, for two absolute entities to be united, there is necessarily required some further entity over and above the two absolute entities. This claim, of course, is inconsistent with (A), which according to both William and Scotus is entailed by R1. William reasons, however, that the required further component cannot itself be an absolute entity. He gives two arguments for this, both *reductiones ad absurdum*.

- (R2.1) (P1) If there is some absolute form (F<sub>1</sub>) required to explain the unity of matter and substantial form (F), then F<sub>1</sub> is the highest form in the composite.  
 (P2) There is such a form.  
 (C1) F<sub>1</sub> is the highest form in the composite ([P1] and [P2]).  
 (P3) Higher forms are more perfect than lower forms.  
 (C2) F<sub>1</sub> is more perfect than F ([C1] and [P3]).

According to William, (C2) is false, since the substantial form is the most perfect form in the composite. Since (P1) and (P3) are true, (P2) must be false.<sup>33</sup>

- (R2.2) (P1) If it is the case that an absolute form can make a *per se*

<sup>32</sup> “Quod partes non dicant actualem unionem nec separationem praecise, patet: quia si dicerent actualem unionem praecise non possent separari actualiter; si dicerent actualem separationem non possent uniri, et ideo ista repugnant de partibus”. *In Sent.* 3.2.2 [qu. 164] (F, fol. 165<sup>v</sup>). When quoting from William’s *Sentence* commentary, I follow the text in F unless otherwise noted. I make no attempt to note the variant readings in M. The question numbers in square brackets refer to the now standard numeration given in Daniels, *Zu den Beziehungen zwischen Wilhelm von Ware und Johannes Duns Scotus*, p. 230-8.

<sup>33</sup> “Omnis forma ulterior est perfectior, quia forma ulterior continet in unitate alias praecedentes sicut intellectiva continet in se vegetativam et sensitivam. Si igitur esset alia forma compositi ultra intellectivam, esset perfectior quam intellectiva”. *In Sent.* 3.2.2 [qu. 164] (F, fol. 165<sup>v</sup>).

unity with some other entity only in virtue of some further absolute form, then there is an infinite regress of forms.

(P2) An infinite regress of forms is impossible.

(C) An absolute form cannot make a *per se* unity with some other entity in virtue of some further absolute form.

(P1) is justified by the claim that, if for any absolute form whatsoever, some further absolute form (let us label it a 'unifying absolute form') is required in order to explain the unity of the absolute form with some other entity, then *a fortiori* such an absolute form will be required to explain the unity of the unifying absolute form with that to which it is united: and so on *ad infinitum*.<sup>34</sup> In both (R2.1) and (R2.2), William is supposing that the added absolute entity is some form which somehow perfects or informs the matter and substantial form, and thereby causes their unity. This unifying absolute form is still a part of some whole: the other part is the matter and substantial form which the unifying absolute form informs.

Since the composite is not just identical with its matter and form (from [R1'.6]), and since a composite is not identical with matter, substantial form and some further unifying absolute form (from [R2.1] and [R2.2]), William reasons that a whole material substance must consist of matter and substantial form together with a *relation* between these two absolute components. William argues that, when some substance is generated, the only new entity involved is a new relation between matter and form. Likewise, he reasons, when some substance is corrupted, the only entity which ceases to exist is the relation existing between the two absolute parts:

The parts [of a composite] are prior to their being combined: nevertheless, the whole composite is said to be generated. But the whole differs really from the parts only in virtue of the relation which results from the union of the parts. Likewise, corruption results only from the separation of the natural union [of the parts]—which is a relation. And thus, a relation is the terminus of the corruption.<sup>35</sup>

<sup>34</sup> "Si totum addat aliquid reale super partes, accipio illam formam compositi quam tu das et materiam suam. Illa forma et ista materia sunt partes alicuius compositi. Igitur oportet per te quod forma istius compositi differat realiter ab istis partibus et iterum accipio illam formam compositi et materiam suam. Cum sint partes (habent unum compositum), oportet quod illa forma compositi differat ab istis partibus, et sic in infinitum". *In Sent.* 3.2.2 [qu. 164] (F, fol. 165v).

<sup>35</sup> "Prius sunt partes antequam componantur, et tamen totum dicitur generari et totum non differt realiter a partibus nisi secundum relationem quae accedit ex unionem partium. Et similiter corruptio accedit ex sola separatione naturalis unionis quae est relatio: et ita relatio est terminus corruptionis". *In Sent.* 3.5.5 [qu. 172] (F, fol. 172r).

Since on this account the composite is no entity other than matter, form, and relation, I take it that William is committed to the following variant of (A):

(A\*) An individual substance is merely the aggregate of all its individual absolute and relational parts.

William suggests the following argument against his theory:

(R2'.1) (P1) If a substantial change is a change merely in the category of relation, then there is a change that is a change merely in the category of relation.

(P2) There is no change that is a change merely in the category of relation.

(C1) A substantial change is not a change merely in the category of relation ([P1] and [P2]).

(P3) If a substantial change is not a change merely in the category of relation, then substantial change necessarily involves the generation or corruption of some absolute entity.

(C2) Substantial change necessarily involves the generation or corruption of some absolute entity ([C1] and [P3]).

Accepting (C2) is unacceptable for William. He reasons that the absolute parts—i.e., matter and substantial form—are not generated or corrupted in a substantial change; therefore, if (C2) is true, some other absolute must be generated or corrupted: and the only candidate is the composite of matter and substantial form. Thus, accepting (C2) would entail accepting that in the composite there is some absolute entity over and above its absolute parts of matter and substantial form: a position which William rejects in (R2.1) and (R2.2). (P1) is analytic; and (P3) looks fairly secure.<sup>36</sup> William therefore reasons that the Aristotelian (P2)<sup>37</sup> should be rejected.<sup>38</sup> Scotus agrees with

see also *In Sent.* 3.2.2 [qu. 164] [F, fol. 165<sup>v</sup>], quoted in note 38 below; the same point—that the whole does not differ from the [absolute] parts except in virtue of a relation—is made in *In Sent.* 3.6.2 [qu. 175] [F, fol. 174<sup>r</sup>].

<sup>36</sup> “Nulla unitio per se est ad relationem, quia ‘in ad aliquid non est motus nec mutatio’. Igitur in generatione aliquid absolutum producitur et in corruptione aliquid absolutum destruitur. Ipsae autem partes non generantur secundum philosophum in 7, sed compositum, ipsae partes non corrumpuntur in corruptione, sed compositum. Igitur compositum ad quod terminatur tam generatio quam corruptio est aliud absolutum realiter differens a partibus”. *In Sent.* 3.2.2 [qu. 164] (F. fol. 165<sup>r</sup>).

<sup>37</sup> See *Phys.* 5.2 (225b11-13).

<sup>38</sup> “Cum dicitur quod mutatio, quod est generatio, terminatur ad aliquid absolutum, nego, quia non oportet quod terminetur ad aliquid absolutum sed ad realem rela-

William that (P2) should be rejected, and hence Scotus cannot use (*R2'.1*) against William, or in support of his own theory.<sup>39</sup>

Crucial to a correct understanding of William's theory is some notion of William's account of relations. Elsewhere, William discusses at some length just how a relation should correctly be described. He rejects the theory that a relation does not involve any further entity over and above the foundation of the relation (i.e., that in virtue of which the two related terms are related). He argues as follows:

- (S) (P1) If a relation does not add any entity over and above the foundation, then relation belongs to more than one category.
- (P2) Nothing can belong to more than one category.
- (C) A relation adds some entity over and above the foundation.

(P1) is presumably to be justified by arguing that, if a relation does not add any entity over and above the foundation, then relation will belong to the same category as that to which the foundation belongs. (P2) follows from considerations of the Aristotelian categories as an exhaustive taxonomy. Granted (C), William reasons that a relation is a thing which belongs to the category of relation—irrespective, presumably, of the category to which the foundation belongs.<sup>40</sup> According to William, therefore, a relation is a thing. It has an essence over and above the essence of its foundation.<sup>41</sup> In the case of the (substantial) unity of matter and form, William argues that the foundation of the relation is just the matter and form.<sup>42</sup>

Granted William's claim that the relation between matter and form

tionem''. *In Sent.* 3.2.2 [qu. 164] (F, fol. 165v: see also *In Sent.* 3.5.5 [qu. 172] (F, fol. 172r), quoted in note 35 above).

<sup>39</sup> See *Ord.* 3.1.1, nn. 14-15 (Wadding edition, VII, 23).

<sup>40</sup> "Contra istam opinionem arguitur primo contra hoc quod dicit quod una res potest esse in diversis praedicamentis, sicut exemplificat de actione et passione''. *In Sent.* 1.33.3 [qu. 99] (F, fol. 83r).

<sup>41</sup> "Dico igitur ad quaestionem quod relatio in creaturis dicit aliam essentiam ab essentia fundamenti, ita quod opposito modo est in Deo et in creaturis. Nam ibi [M, fol. 91<sup>ra</sup>; *om.* F] ratio fundamenti et ratio relationis sunt diversae rationes reales, non tamen relatio est alia res a fundamento. In creaturis autem non solum sunt diversae rationes reales ratio fundamenti et ratio relationis, immo ipsa relatio est alia res a fundamento''. *In Sent.* 1.33.3 [qu. 99] (F, fol. 83v). 'Ratio realis' refers to some kind of formal or intentional distinction: see Gál, *Gulielmi de Ware*, p. 176.

<sup>42</sup> "Fundamentum autem huius relationis ad quod terminatur generatio est corpus et anima''. *In Sent.* 3.2.2 [qu. 165] (F, fol. 165v). William here is referring to body and soul; but his remarks hold, *mutatis mutandis*, of matter and form also.



is itself a thing, it would be possible to formulate an objection to his position along the lines of (R2.2):

- (R2.2\*) (P1) If it is the case that a form can make a *per se* unity with some other entity only in virtue of some further form, then there is an infinite regress of forms.  
(P2) An infinite regress of forms is impossible.  
(C) A form cannot make a *per se* unity with some other entity in virtue of some further form.

The point of the objection is that, if it is necessary to posit a further (relational) form (call it 'R<sub>1</sub>') to explain the unity of matter and substantial form, then it will be necessary to posit a further (relational) form to explain the unity of R<sub>1</sub> with the matter and form which it unifies: and so on *ad infinitum*.<sup>43</sup>

William does not raise the objection: but his discussion of relations would nevertheless provide him with the tools to answer it. He reasons that the addition of a relational entity to an absolute one does not itself produce a composite whole. Rather, there is just what William labels 'apposition' between the two entities. And, presumably, whatever this apposition is, it is not the kind of state of affairs which requires any further ontological explanation.<sup>44</sup> (R2.2\*) is not an objection which Scotus could invoke against William's position, since Scotus too believes that it is possible to block the proposed infinite regress.<sup>45</sup>

Scotus rejects R2 on the grounds that it does not allow a principled account of substance-distinction<sub>1</sub>.

- (R2'.2) (P1) If unity<sub>4</sub> consists merely in two absolute parts and the relation between them, then unity<sub>4</sub> is the same as unity<sub>1</sub>.  
(P2) Unity<sub>4</sub> is not the same as unity<sub>1</sub>  
(C) Unity<sub>4</sub> does not consist merely in two absolute parts and the relation between them.

<sup>43</sup> This objection against the reifying of relations has a long history from Avicenna onwards: see Henninger, *Relations*, p. 89.

<sup>44</sup> "Nec tamen ex hoc quod est alia relatio a fundamento est ibi proprie compositio (ut puta non est compositus albus simile [M, fol. 91<sup>ra</sup>; similem F] quam sit albus), nisi appellando compositionem materialem, quia ibi sunt plures essentiae quam ante. Est enim ibi nunc essentia absoluta et essentia respectiva, et prius fuit ibi solum essentia absoluta. Unde non est ibi proprie compositio sed appositio magis, quia plures essentiae". *In Sent.* 1.33.3 [qu. 99] (F, fol. 83<sup>v</sup>).

<sup>45</sup> Scotus achieves this by claiming that a relational entity is not really distinct from its relation of inherence: see Henninger, *Relations*, p. 90-1.

(P1) is entailed by Scotus's understanding of unity<sub>1</sub> and by (A\*). (P2) looks here as though it is pre-theoretical. As we shall see, Scotus does have some arguments for it.<sup>46</sup> Scotus's next argument seems less significant:

- (R2'.3) (P1) If the entity distinguishing the whole from its parts is a relation, then the essence of the whole is formally relational.  
 (P2) The essence of the whole is not formally relational.  
 (C) The entity distinguishing the whole from its parts cannot be a relation.

(P1) is presumably warranted by the claim that the distinguishing entity (*'entitas propria'*) is what determines the species to which some substance belongs. An adherent of R2 could, however, simply deny (P2). Nevertheless, denying it would entail denying the received wisdom about the elements of a definition: Scotus, for example, points out that (P2) is entailed by the claim that the essences of substances belong to genera the members of which clearly are absolute, and not relational, entities. (Think of the genus 'animal', for example.) But a determined adherent of R2 could deny even this.<sup>47</sup>

Scotus also claims that versions of arguments (*R1'.2*), (*R1'.3*), and (*R1'.5*) are effective against R2. The following four arguments are the strongest that Scotus proposes against R2, since they provide him with good metaphysical reasons for his claim that it is possible to give a clear account of substance-distinction<sub>1</sub>. I shall reserve discussion of these arguments until section five.

<sup>46</sup> "Dico quod <totum> etiam est aliud ens, et alia entitate absoluta, quia solus respectus non sufficeret ad hoc quod totum diceretur per se unum, quia in toto uno per accidens est per se respectus et essentialis partis ad partem, ut patet de dependentia accidentis ad subiectum". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 79 [n. 8]). This argument makes it look as though the issue is giving an account of substance-distinction<sub>2</sub>. Since, however, it would be possible to make a substance-distinction<sub>1</sub> without making a substance-distinction<sub>2</sub>, I take this to be a mistake—and one which Scotus himself rectifies in a later discussion, clearly identifying R2 with the failure to give an account of substance-distinction<sub>1</sub>: "Non dicit humanitas respectum solum unionis ultra partes.... Si enim homo nihil esset nisi partes unitae sibi, homo non esset homo nisi aggregatione". *Ord.* 3.22 (A, fol. 164<sup>va</sup>; Wadding edition, VII, 451 [n. 18]). On this, see also, on analogy with R1, (*R1'.1*).

<sup>47</sup> "Quidditates omnium absolutorum, ut includentes materiam et ut definibiles (quia ut sic sunt species generis absoluti) non sunt tantum formaliter entia respectiva, quod tamen oporteret si entitas propria totius esset respectus". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 79 [n. 8]).

- (R2'.4) (P1) If (A\*), then the *terminus ad quem* of generation is a relational entity.  
 (P2) The *terminus ad quem* of generation is not a relational entity.  
 (C) Not (A\*).
- (R2'.5) (P1) If (A\*), then the *terminus a quo* of corruption is a relational entity.  
 (P2) The *terminus a quo* of corruption is not a relational entity.  
 (C) Not (A\*).
- (R2'.6) (P1) If (A\*), then absolute causes are the causes merely of a relational entity.  
 (P2) Absolute causes are not the causes merely of a relational entity.  
 (C) Not (A\*).
- (R2'.7) (P1) If (A\*), then proper passion, action, and absolute accidents would inhere in a formally relational entity.  
 (P2) Proper passion, action, and absolute accidents do not inhere in a formally relational entity.  
 (C) Not (A\*).<sup>48</sup>

Scotus offers one further argument against R2:

- (R2'.8) (P1) If some essence as such has a specific difference, then that specific difference will itself be specifically different from any other specific difference.  
 (P2) A relation is not specifically different from any other relation.  
 (C) A relation is not the specific difference of any essence as such.

Although he does not spell this out, Scotus must be relying on a claim that R2 entails that a relation is the entity which distinguishes a whole substance from its absolute parts: and that as such it must be the specific difference of the essence of a substance. Hence, R2 violates

<sup>48</sup> "Hoc etiam concludunt rationes factae ad primum articulum, quia neque generatio aliqua est per se ad respectum ut ad terminum ad quem; nec etiam corruptio est a solo respectu ut a termino a quo; neque causae absolutae sunt solius respectus vel respectivi causae, neque propria passio consequitur totum praecise inquantum respectivum, neque propria operatio vel aliquid accidens absolutum". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 79 [n. 8]).

(C) here, and is therefore false. (P1) looks reasonable. (P2), on the other hand, would look as though it requires some justification: though Scotus clearly wants to remain fairly non-committal ('non videtur possibile tantam ponere differentiam [viz., specificam] respectuum': my italics). (P1) does not entail an infinite regress, since a specific difference need not itself be a complete essence, and hence be definable in terms of genus and specific difference. But the inference from R2 to the claim that a relation (on [R2]) is the specific difference of the essence of some substance looks false. A specific difference distinguishes the different species in some genus: it does not standardly distinguish a whole from its parts.<sup>49</sup>

#### 4. *R'*: Scotus's anti-reductionistic account of material substance

Scotus claims that a whole composite substance is some absolute entity really distinct from all of its parts. He construes this claim carefully to preclude the view that this absolute entity is itself a part of some (further) whole. Thus, Scotus cites with approval William's arguments (*R2.1*) and (*R2.2*).<sup>50</sup> He also agrees with William that, if matter and substantial form are to be actually united, it is necessary that there exist a relation between them.<sup>51</sup> Like William, Scotus holds that a relation itself counts as a *thing*.<sup>52</sup> Granted that a relation counts as a thing, Scotus will be committed to the claim that the relation of the two absolute parts adds some further entity over and above the

<sup>49</sup> "Nec tandem videtur possibile posse assignare differentiam specificam omnium quidditatum: quia non videtur possibile tantam ponere differentiam respectuum inter partes unitas". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 79 [n. 8]).

<sup>50</sup> "Si intelligatur in toto praeter formam partis (cuiusmodi est in homine anima intellectiva) esse aliam formam quasi supervenientem illi quae sit etiam aliquid ipsius totius, et tamen dicatur forma totius (distinguendo eam contra formam partis) quia completius constituit totum quam illa alia forma, iste intellectus est falsus, quia tunc esset in homine aliqua forma constituens hominem perfectior anima intellectiva, quod est inconveniens. Similiter si innitatur rationi acceptae ex perfectione totius—puta quia ex materia et forma quae est pars non fieret unum nisi per aliam formam unientem illas partes, quae sit totius,—ista ratio concluderet processum in infinitum, quia etiam de ipsa quaero quomodo facit unum cum materia et forma partis. Si ex se, igitur sic potest concedi de forma partis, quod ex se sit nata facere unum cum materia; si per aliud, erit processus in infinitum". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 79 [n. 8]).

<sup>51</sup> "Esse quidem totius necessario concomitatur unio partium et e converso. Nec tamen illa unio est illud esse, quia unio est respectus, et esse illud est absolutum". *Ord.* 3.2.2 (A, fol. 144<sup>vb</sup>; Wadding edition, VII, 80 [n. 11]).

<sup>52</sup> See above, note 21.

absolute parts. But, as we have seen, Scotus holds that (A\*), entailed by William's theory R2, is not a sufficient description of a material substance. (A\*), according to Scotus, is an accurate description not of unity<sub>4</sub>, but merely of unity<sub>1</sub>. Thus, (A\*) does not allow for a clear account of substance-distinction<sub>1</sub>.

Scotus puts the claim that essence as such is a composite of form as such and matter as such as follows:

If the form of the whole is understood not to be something constituting a whole, but rather to be the whole nature itself taken as quiddity, then it can be rightly conceded that the form of the whole is different from the partial form, and that nature or quiddity can be called 'form'. This is clear from Aristotle, *Metaphysics* 5.2.<sup>53</sup> ... With respect to what is it [viz. the form of the whole] a form? I reply by saying that it [is a form] with respect to the whole composite, not an informing form [i.e., a further form added to the whole composite], but the form in virtue of which the composite is a being in a quidditative way. And in this way the whole being is formally a form, just as white is said to be white by whiteness—not that the form of the whole is so to speak a cause of itself, causing a kind of a whole together with matter and the partial form. Rather, it [viz., the form the whole] is the whole itself considered just in the way which Avicenna speaks of in *Metaphysics* 5: 'horseness is just horseness'.<sup>54</sup>

In this passage, 'partial form' (*forma partis*) refers to substantial form. The point of the passage is that essence as such is more than just its really distinct components: essence as such is really distinct from its really distinct components. Thus, the components constitute some essence over and above the essence of the components. Assuming (A\*) to entail that a whole is just identical with the aggregate of its parts, R' entails that (A\*) is false. Since essence, as understood by Scotus, is not some new *part* of some further entity, Scotus's claim that the essence is a new absolute does not fall victim to William's arguments—(R2.1) and (R2.2)—against essence as some further absolute part. Of course, essence understood as a whole, rather than as a part, does not have any parts that are not either matter, form, or

<sup>53</sup> 1013b21-23.

<sup>54</sup> "Si tamen intelligatur forma totius non aliquid constituens totum, sed natura tota ut quidditas, hoc modo bene concedi potest quod forma totius sit aliud a forma partis, et quod natura vel quidditas possit dici forma: patet ex Philosopho 5 Metaphysicae cap. de causa.... Sed respectu cuius est forma? Respondeo et dico quod respectu totius compositi, non quidem forma informans sed forma qua compositum est ens quidditative. Et hoc modo totum ens formaliter est forma, sicut album dicitur album albedine, non quidem quod forma totius sit quasi causa ipsius, cum materia et forma partiali causans quasi totum, sed est ipsum totum praecise consideratum secundum illum modum quo loquitur Avicenna 5. Metaphysicae, 'Equinitas est tantum equinitas' ". *Ord.* 3.2.2 (A, fol. 144<sup>va</sup>; Wadding edition, VII, 80 [n. 9]).

matter-form relation: but on Scotus's non-reductionistic account, it is nevertheless still not identical with its parts.

The same is true of individual composite substance. As I have noted, Scotus tends to slip fairly readily between these two different points, and he often talks of 'composite' ambiguously, not making it clear whether he is talking about composite essence or this individual composite. But the context makes it quite clear that what he is saying about the unity of a composite applies to this individual composite as much as to composite essence. The discussion of R1, R2, and R', takes place within a consideration of the union of Christ's human nature to the second person of the Trinity in the hypostatic union. The question is: Was this human nature assumed by the second person of the Trinity by means of the assumption of its parts, or not? And Scotus is elsewhere quite clear that Christ's human nature is itself an individual substance, individuated without reference to its union with the second person of the Trinity.<sup>55</sup> In our text, Scotus makes the following remarks about this individual substance (viz., Christ's human nature):

The whole nature out of parts ... is a certain third being, different from each of its parts, and from both together or separately.<sup>56</sup>

It is also worth noting that a whole substance on R' will be *really* distinct from its parts. Some of Scotus's arguments against R1 and R2 make this clear: see particularly the text cited at (R1'.3): 'AB [viz., a whole] is really different from A and B [viz., its parts]'. Equally, the parts of the whole are really separable from the whole: since, as Scotus supposes, the absolute parts can continue in existence even if the whole does not exist. (Separability is a sufficient condition for real distinction.)<sup>57</sup> Thus, the whole is really distinct from its absolute and relational parts.<sup>58</sup> We can thus formulate the basic claim of the theory as follows:

(B) Substance is some absolute entity really distinct from matter, form, relation, and any aggregate of two or more of these parts.

<sup>55</sup> See for example *Ord.* 3.1.1, nn. 6, 17 (Wadding edition, VII, 12, 25).

<sup>56</sup> "Natura tota ex partibus...est quoddam ens absolutum tertium aliud a partibus utrisque, et ambabus coniunctum et divisim". *Ord.* 3.2.2 (A, fol. 144<sup>vb</sup>; Wadding edition, VII, 80 [n. 11]).

<sup>57</sup> On the separability criterion for real distinction, see above, note 3.

<sup>58</sup> A puzzling margin note placed next to (R1'.1) seems to suggest otherwise: 'Nota quod totum non est aliud realiter quam partes vel coniunctim vel divisim acceptae' (A, fol. 144<sup>va</sup>). In the light of Scotus's unequivocal claims in the main text, I assume this to be a mistake.

(B) should be understood to exclude the claim that there could be any parts other than matter, form and relation. (B) should also be understood to entail that substance exhibits unity<sup>4</sup>. I will discuss this claim further in the last section.

Scotus addresses three problems raised by R'. (S1) Can R' provide an *explanation* for the fact that matter and substantial form can be united in such a way as to constitute a whole which exhibits unity<sup>4</sup>? (S2) Can R' provide an *explanation* for the fact that accidental forms cannot be united with some other entity so as to constitute a whole which exhibits unity<sup>4</sup>?<sup>59</sup> (S3) Can, as R' supposes, an absolute entity (viz., the whole composite substance) depend on, or at least presuppose, a relational entity?<sup>60</sup>

(S1) The most important discussion gives what looks like a standard Aristotelian reply to the question:

A composite of matter and form is one, because 'this one is act, and that one potentiality', as Aristotle says there:<sup>61</sup> for just as there is no medium between matter and its being a cause in its genus, and none between form and its being a cause, these two therefore constitute a *per se* unity.<sup>62</sup>

According to this passage, matter and substantial form are united immediately to each other as potentiality and act: matter is immediately potential to form, and form is immediately actual to matter. For this reason, a composite of matter and form is one *in itself*. Thus, the explanation of the fact that matter and substantial form unite to make an entity which exhibits unity<sup>4</sup> is just that matter and substantial form are the types of thing that they are.

By labelling matter 'potential', Scotus does not mean that matter is pure potentiality, or that it somehow fails to be an entity or thing in its own right. Scotus consistently claims that matter is potential merely in the sense of being a subject capable of receiving (substantial) forms, or in which forms can inhere. Scotus labels this type of potentiality 'subjective potentiality'.<sup>63</sup> Subjective potentiality is not a property

<sup>59</sup> For (S1) and (S2), see *Ord.* 3.2.2, n. 10 (Wadding edition, VII, 80).

<sup>60</sup> *Ord.* 3.2.2, n. 11 (Wadding edition, VII, 81).

<sup>61</sup> *Met.* 7.6 (1045b7-21).

<sup>62</sup> "Compositum ex materia et forma est unum quia 'hoc actus et illud potentia', sicut ibi dici Philosophus; quia enim non est medium inter materiam et ipsam esse causam in genere suo, nec inter formam et ipsam esse causam in genere suo, ideo per se faciunt unum". *Lect.* 2.12, n. 50 (Vatican edition, XIX, 89). See also *Ord.* 3.2.2, n. 10 (Wadding edition, VII, 80); *Lect.* 2.12, n. 67 (Vatican edition, XIX, 95).

<sup>63</sup> *Lect.* 2.12, nn. 30, 37 (Vatican edition, XIX, 80, 82).

instantiable only by prime matter. Scotus believes, as noted above, that some composite substances contain two (or more) essential forms. A necessary (though not sufficient) condition for the substantial unity of such composites is that the various forms are arranged hierarchically: the composite composed of matter together with a lower form is itself subjectively potential to a higher form.<sup>64</sup> Since the significant claim here is that matter and lower forms are subjectively potential to higher forms, R' can, *mutatis mutandis*, be used to give an account of the substantial unity of any composite exhibiting unity<sub>4</sub>, irrespective of the number of hierarchically arranged forms which, with matter, compose it.

(S2) Scotus claims that it is not possible to provide an explanation for the fact that accidents cannot be united with some other entity so as to constitute a whole which exhibits unity<sub>4</sub>:

There is no reason why this entity is *per se* act with respect to that entity, whereas another is only *per accidens* [act] with respect to some further entity, except that this [kind of] entity is this [kind of] entity.<sup>65</sup>

(S2) in fact concerns the possibility of giving a clear account of substance-distinction<sub>2</sub>: or more precisely, the grounds upon which such a distinction is to be made. Scotus, as the passage makes clear, is fairly agnostic about the grounds on which the distinction can be drawn. On the other hand, his account of (S1) makes it clear that he does not have such difficulty with substance-distinction<sub>1</sub>.

(S3) Scotus argues that there is no difficulty involved in affirming that some absolute entity can depend on, or presuppose in some sense, a relational entity. He argues that, generally, any natural causal activity entails spatial proximity: *a fortiori*, then, natural causal activity resulting in the production of a substance or absolute accident entails spatial proximity. But spatial proximity, in Scotus's fairly Aristotelian account of place, is itself merely a relation. Hence, the natural production of some substance or absolute accident depends on a relation. Analogously, then, there is no difficulty in the case of a whole depending upon the relation between its parts.<sup>66</sup>

<sup>64</sup> On this, see note 16 above, and conveniently *Ord.* 4.43.1, n. 7 (Wadding edition, X, 6).

<sup>65</sup> "Quare autem ista entitas est per se actus respectu istius, et alia per accidens tantum respectu alterius, non est ratio, nisi quia haec entitas est haec entitas". *Ord.* 3.2.2 (A, fol. 144<sup>va-b</sup>; Wadding edition, VII, 80 [n. 10]). See also *Lect.* 2.12, n. 50 (Vatican edition, XIX, 89).

<sup>66</sup> "Nec est inconveniens aliquid absolutum dependere, vel praeexigere, vel saltem coexistere aliquo modo aliquem respectum. Universaliter enim omne absolutum



## 5. Assessment

Is Scotus right to hold that a whole is more than merely the aggregate of its parts (where the relevant parts are matter, form and relation)? I do not know the answer to this rather ambitious question. But I will try to spell out more clearly what his position might amount to. First, I will exclude those arguments which fail to suggest why drawing a substance-distinction<sub>1</sub> is desirable. One argument, *(R1'.4)*, relies on the stipulation of the *per se* unity of a composite as a pre-theoretical given. Much the same trait is revealed by *(R2'.3)*, which trades on the stipulation that the quiddity of a whole is not in any way a merely relational property. These two arguments therefore cannot be used by Scotus to *defend* his position. Other arguments fail for other reasons to be relevant to a fully articulated defence of R'. *(R2.1)* and *(R2.2)* amount to the rejection of an unsuccessful non-reductionist account of substance. Equally, rejection of *(R2'.1)* is consistent both with R2 and with R'. Rejecting *(R2'.1)* requires the rejection of the Aristotelian claim that there can be a change in a relational property only as the result of a change in some non-relational property: i.e., that it is not possible for there to be a change *merely* in the category of relation. *(R2'.8)* trades on the related stipulation that an absolute cause cannot be the efficient cause of a merely relational entity. This stipulation looks inconsistent with a rejection of the Aristotelian claim in *(R2'.1)*. Since Scotus does reject this Aristotelian claim, it seems difficult to see how we can allow him the stipulation required for *(R2'.8)*. Finally, *(R1'.1)* and *(R2'.2)* show that R1 and R2 will have difficulty providing a clear account of substance-distinction<sub>1</sub>. They are thus of relevance to the adherents of R1 and R2 just if the adherents of these theories would be reluctant to make this reductionist move. But the two arguments do not provide any reasons for thinking that the reductionist account is not in fact desirable.

This leaves the following group of arguments: *(R1'.2)*, *(R1'.3)*, *(R1'.5)*, *(R2.4)*, *(R2'.5)*, *(R2'.6)*, *(R2'.7)*. Roughly, these arguments fall into three groups. (i) *(R1'.2)*, *(R2'.4)*; (ii) *(R1'.3)*, *(R2'.5)*; (iii)

causatum a pluribus causis necessario praeexigit unionem et approximationem illarum causarum in causando. Et ita potest hic esse quod tota entitas totius sit absoluta, licet necessario praeexigat vel coexigat unionem partium absolutarum''. *Ord.* 3.2.2 (A, fol. 144<sup>vb</sup>; Wadding edition, VII, 80 [n. 10]). For location as a relation, see *Ord.* 4.10.1, n. 7 (Wadding edition, XII, 499); *Quod.* 11, n. 3 (Wadding edition, XII, 263; Alluntis and Wolter, p. 258 [par. 11.4]).

(*R1'.5*), (*R2'.7*); adding (*R2'.6*) to the first two groups. Let us grant, with Scotus, the following claims: (1) that (A) and (A\*) are false; (2) that (*R2.1*) and (*R2.2*) are true; and (3) that (*R2'.4*)-(*R2'.7*) presuppose the rejection of R1 (and hence [A]) found in (*R1'.2*), (*R1'.3*) and (*R1'.5*). Let us further infer from (1) and (2), with Scotus, that (B) is true. On this basis, we can perhaps formulate three composite arguments which will express what Scotus is drawing our attention to.

(*T1*) (P1) If it is not the case that the *terminus ad quem* of generation is either individual matter alone, or individual form alone, or relational entity alone, or some aggregate of two or more of these parts, then (B).

(P2) It is not the case that the *terminus ad quem* of generation is either individual matter alone, or individual form alone, or relational entity alone, or some aggregate of two or more of these parts.

(C) (B).

(*T2*) (P1) If it is not the case that the *terminus a quo* of corruption is either individual matter alone, or individual form alone, or relational entity alone, or some aggregate of two or more of these parts, then (B).

(P2) It is not the case that the *terminus a quo* of corruption is either individual matter alone, or individual form alone, or relational entity alone, or some aggregate of two or more of these parts.

(C) (B).

(*T3*) (P1) If it is not the case that proper passion, operation, and absolute accident inhere either in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts, then (B).

(P2) It is not the case that proper passion, operation, and absolute accident inhere either in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts.

(C) (B).

Putting the premisses like this makes it clear that what is at issue is an account of substance-distinction<sub>1</sub>. There are two good reasons for thinking that the way I have put these premisses—particularly the recurring ‘some aggregate of two or more of these parts’—is warranted by Scotus’s discussion of R’. First, I phrase the premisses like

this to capture Scotus's claim that a whole is not simply identical with all its parts (where the relevant parts are matter, form, and relation). Secondly, as Scotus phrases (*R1'*.5) (from which, with [*R2'*.7], I derive [*T3*]), it entails the denial of the claim that proper passion, operation, and absolute accident inhere in individual matter alone, or individual form alone, or in both simultaneously (*'utrique simul'*): the only plausible reading of which would be 'in some aggregate of these two parts'. In putting (*R2'*.7), Scotus expressly claims that argument (*R1'*.5) is sufficient to refute R2: though he does add the further stipulation that proper passion, operation, and absolute accidents cannot inhere in relational entity either. And putting all this together, we can formulate the whole of the antecedent of (P1): 'It is not the case that proper passion, operation, and absolute accident inhere either in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts'. The way Scotus expresses (*R1'*.2) and (*R1'*.3) is a bit less clear: but I would defend my formulations (*T1*) and (*T2*) by analogy with (*T3*).

Are there any good reasons for accepting these arguments? Let us look first at (*T1*) and (*T2*). 'Generation' and 'corruption' are terms standardly used to refer to the production and destruction of a complete composite substance in virtue of the conjunction or separation of its parts. Hence, the two terms refer to changes which can be undergone by a substance, and which are *different in kind* from the changes which could be undergone by matter alone, or form alone, or relational entity alone. The fourth claim made by (P2) of (*T1*) and (*T2*) is that the termini of generation and corruption cannot be some aggregate of two or more of matter, form, and relational entity. One condition under which (P2), thus expressed, could be true would be if the following were true:

(T) Some of the properties of some whole are different in kind from the properties which inhere in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts.<sup>67</sup>

(T) is a non-reductionistic claim, entailing (P2) of (*T1*) and (*T2*). But

<sup>67</sup> By 'properties' here, I do not mean properties such as 'is a part of x', or 'is composed of parts', the first of which would be (trivially) false of any whole which is not a part of some further object, and the second of which would be (trivially) false of any whole which does not have parts of its own. I am using 'properties' to mean non-trivial properties, such as: 'has a causal influence on x', or 'has the capacity to smile'.

accepting (T) is not a necessary condition for accepting (P2) of (T1) and (T2). This premiss is also entailed by the weaker claim:

(U) Some of the properties of some whole are numerically different from the properties which inhere in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts.

But plausibly (U) could be satisfied only in one of two ways. (1) We stipulate *in advance* that the whole is not just the set of all the parts, and thus guarantee that some property of the whole is not just a property of all the parts together. But if we do this, our accepting (U) will be at best no more than a *petitio principii*. (2) We understand (U) as entailed by (though not entailing) (T). In this case, it is Scotus's assent to (T)—not his assent to (U)—which is of importance. Thus, if (P2) of (T1) and (T2) is to be accepted, it must be construed as *entailing* (T):

(T\*) If some of the properties of some whole do not inhere in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts, then these properties are different in kind from the properties which inhere in individual matter alone, or in individual form alone, or in relational entity alone, or in some aggregate of two or more of these parts.

(T\*) would give us a principled—though perhaps not very sophisticated—way of spelling out substance-distinction<sub>1</sub>. (T\*) is thus just the kind of principle which Scotus needs if his account is to be reasonably complete. There is no unequivocal evidence that Scotus would assent to (T\*): though I shall try to show that (T\*) is the most plausible reason for Scotus's accepting (T1), (T2) and (T3). The best evidence for Scotus's assent to (T\*) is to be found in (T3). In his discussion in (R1'.5)—on the basis of which I have formulated (T3)—Scotus reasons:

Proper passion, proper operation and any proper accident do not belong to matter or form or both of these together (except inasmuch as they are one in some *per se* whole), though they do belong to the species [of the whole].<sup>68</sup>

Although this does not provide unequivocal evidence of Scotus's support for (T\*), nevertheless, Scotus's use of 'species' here perhaps alerts us to the relevance of differences *in kind*—not merely numerical

<sup>68</sup> For the text, see above, note 30.

differences—between the properties of the whole and the properties of the parts. And it thus might signal his support of (T\*). In any case, adherence to (T\*) provides the most plausible reason for Scotus's claim that the properties of the whole do not inhere in any of the parts, or in any aggregate of the parts. Thus, proper passions, like proper accidents, are Aristotelian properties (*propria*): necessary but non-defining properties.<sup>69</sup> The claim that proper passions and accidents do not inhere in a part or in any aggregate of two or more of the parts makes good sense on the supposition that such properties would be of the appropriate kind to inhere in a composite substance, but *not* of the appropriate kind to inhere in individual matter, individual form, relational entity, or in any aggregate of two or more of these parts. Much the same point can be made with regard to operations. A material substance is capable of all sorts of causal activity which are different in kind from the causal activity of any of its parts. Typically, matter and form (even as parts of a composite) do not exercise any *efficient* causality at all: whereas in medieval accounts the composite substance which they constitute clearly does exercise efficient causality.<sup>70</sup> But the claim that operations do not inhere in an aggregate of two or more of individual matter, individual form, and relational entity, could best make sense on the supposition that such properties would be of the appropriate kind to inhere in a composite substance, but *not* of the appropriate kind to inhere in individual matter, individual form, relational entity, or in any aggregate of two or more of these parts. With regard to (T1) and (T2), the properties of being generable and corruptible, which can be instantiated (uniquely) by a material substance, do not look to be the same in kind as the properties of the parts of a material substance (i.e., matter, form, and relational entity). I conclude that Scotus accepts (T\*), and that it is for the reason outlined in (T\*) that he adopts a non-reductionistic account of material substance.

(T) and (T\*) are principles which concern individual substances. But the arguments in section four of this article make it clear that an essence as such is different from its various parts in a way analogous to that in which an individual substance is different from its various

<sup>69</sup> See *Ord.* 1.3.1.3, n. 134 (Vatican edition, III, 83).

<sup>70</sup> In the case of a human composite, two of the parts (viz., body and soul) do exercise efficient causality of their own: though the type of efficient causality which they exercise together is still different in kind from that which they exercise separately. It is perhaps the case that the whole human composite exercises some 'downwards' causation on its parts, possibly the exercising of vital activity would be a case in point.

parts. Perhaps we could formulate another principle, along the lines of (T), to cover this:

(V) If some whole has an essence which is different in kind from the essence of any of matter alone, or form alone, or relational entity alone, or some aggregate of two or more of these parts, then the essence of the whole is really distinct from the essence of matter alone, or form alone, or relational entity alone, or some aggregate of two or more of these parts.

We can argue for the antecedent of (V) from (T) since, if an individual has at least some essential properties which are different in kind from the properties of its parts, then the essence which it instantiates will be different in kind from the essence of its parts. The antecedent of (V) entails the consequent since an essence which is different in kind from some other essence is *a fortiori* numerically different from that essence.

(V) enables us to clarify precisely Scotus's account of substance-distinction<sub>1</sub>. An individual exhibiting unity<sub>4</sub> will satisfy the description in the antecedent, and will hence have an essence which fails to be identical with the essence of its parts: whereas an individual exhibiting merely unity<sub>1</sub> will not satisfy the description in the antecedent. On (V), essence as such exhibits unity<sub>4</sub> just because it is not reducible to its parts. But adding further properties does not yield some further non-reducible essence. The resulting abstract object would in fact be reducible to essence and the added non-essential properties. The whole will constitute a unity<sub>1</sub>—or at best unity<sub>3</sub>.

Which of R2 and R' is to be preferred? William of Ware would presumably hold that some of the properties of the whole are different in kind from the properties of any of the parts. But, since he does not hold that a whole substance is anything beyond its parts, he would reject (T\*). Thus, Scotus's opinion will be preferred to William's if (T\*) is true. Assessing the truth of (T\*) would take me well beyond my merely historical aims in this paper. But I hope at least to have identified the lines upon which an assessment of these two theories might take.

### *Appendix*

#### *Scotus's account in the Questions on the Metaphysics, 8.4*

In the Questions on Aristotle's *Metaphysics*, 8.4, Scotus presents a (rather confusing) discussion of some of these issues which in places

looks like a version of R2. But the account does not seem to be wholly consistent, and large parts of it look like a defence of R'. I shall first present the textual evidence (in two parts), and then make some suggestions as to the most plausible reading of the texts.<sup>71</sup>

(1) The main exposition of Scotus's opinion in the *Metaphysics* questions runs as follows:

When there are essentially many causes of one effect, those causes never cause the effect unless they concur in their causing. To concur, and to fail to concur, alter nothing about the absolute nature of a cause; neither is that concurrence any fifth cause [viz., other than material, formal, efficient and final causes]. Therefore the causes sometimes cause and sometimes fail to cause merely in virtue of the various relations of the causes to each other, which [are] not however the basis [*ratio*] for the causation—[either] for them [viz., the causes] or for any one of them. Thus, here, with regard especially to the two causes (viz., matter and form) they cause because they are united—i.e., concurrent in causing (and their concurrence is brought about by the action of an agent); and when they are not concurrent, they do not cause. Therefore there is something in the composite beyond them [viz., matter and form].<sup>72</sup>

Some comments are in order here. First, as the final sentence makes

<sup>71</sup> It is difficult to determine the date of the (incomplete) *Metaphysics* questions. It is generally felt that they are early: see Vatican edition, XIX, 41\*-46\*. Scotus certainly refers to them in *Ordinatio* 4.11.3, n. 41 (Wadding edition, VIII, 645). But in *Metaphysics* 7.13, n. 26 (Wadding edition, IV, 708<sup>b</sup>) there is a reference to the *Ordinatio*: indicating either that at least books 7 to 9 of the *Metaphysics* questions are late, or that (as the editors of the Vatican edition suggest) Scotus continued tinkering with the work throughout his life (on the whole question, see also Vatican edition, I, 155\*; also Allan B. Wolter, *Reflections on the Life and Works of Scotus*, in: *American Catholic Philosophical Quarterly* 67 (1993), 1-36 [p. 35-6]). The discussion of the issues which are of interest to me in this article is certainly far less polished in the *Metaphysics* questions than it is in the *Ordinatio*. In Scotus's *Lectura*, we find an account which is fairly similar to the *Ordinatio* account (although the *Lectura* account is less well developed). *Lectura* 3.22 (B<sub>1</sub>, fols 65<sup>v</sup>-69<sup>v</sup>) is followed very closely by the *Ordinatio* account; and *Lectura* 3.2.2 (B<sub>1</sub>, fols 14<sup>v</sup>-15<sup>v</sup>) makes the important point that quiddity is to be identified with *forma totius*, where both terms are to be understood to refer to a *whole*: not to the kind of part which can inform another part. It also provides versions of arguments (*R1'.1*), (*R1'.2*), (*R1'.3*), (*R1'.4*), (*R2.1*), (*R2.2*). But book three of the *Lectura* (1303-04) is not an early work (Vatican edition, XIX, 33\*), and hence of no help in detecting—or indeed denying—any shift of opinion between Scotus's earlier and later writings.

<sup>72</sup> “Quando alicuius causati sunt multae causae essentialiter, illae numquam causant causatum nisi ⟨in⟩ causando concurrant. Concurrere autem et non concurrere nihil variant circa absolutam naturam alicuius causae, nec est iste concursus quinta causa. Itaque sola relatione alia et alia causarum ad invicem, quae tamen non eis ⟨sunt⟩ nec alicui earum ratio causandi, causae quandoque causant, quandoque non. Ita hic de duabus causis specialiter, videlicet forma et materia, quia unita—hoc est concurrentia ad causandum—causant (qui concursus fit eorum per actionem agentis); non concurrentia non causant. Igitur in composito est aliquid praeter ipsa”. In *Met.* 8.4 (B<sub>2</sub>, fol. 155<sup>ra</sup>; Wadding edition, IV, 757<sup>b</sup> [n. 6]).

clear, in order for matter and form to constitute a substance, some further entity needs to be added to them. Secondly, this added entity does not itself have any causal role in the constitution of a substance. Thirdly, matter and form, as absolute entities, remain in themselves unchanged when they constitute a substance. Fourthly, matter and form are united in virtue of their concurring in the (material and formal) causation of some substance.

Since the substantive claim here is the first one, the passage seems in fact consistent with both R2 and R'. But a reply which Scotus gives to an objection to his position looks straightforwardly consistent only with R2:

If there is understood to be some relation in the composite (beyond the absolute nature of each [viz., matter and form]), not as an intrinsic cause, nor as the basis [*ratio*] of a cause—and (because of this) not as an essential part of the composite, but rather such that the part and the cause are concomitant [upon the relation], without which [relation] the cause would not cause, the consequence cannot be denied, and neither is the consequent awkward. If, however, 'something' is understood to mean 'some absolute essence' or '[something] in the composite as its essential part': neither of these follows.<sup>73</sup>

This passage makes it quite clear that the entity in virtue of which matter and form constitute a substance is just a relation. Furthermore, it claims that a relation is a necessary (though not sufficient) condition both for the status of matter and form as real parts of some real composite, and (consequently) for their status as causes. But it appears to go on to claim that, apart from matter and form, there is no further absolute entity in the composite at all. This claim is consistent with R2, but not with R'.

Scotus goes on to offer a reply to (*R1'.3*)—an argument which, as we have seen, is a pivotal part of his defence of R' in the *Ordinatio*. According to the reply, the Aristotelian example of the syllable 'ab' is to be construed not as about matter and form (since standardly form does not survive the destruction of the composite), but as about the different material constituents of a substance.<sup>74</sup>

<sup>73</sup> "Si intelligatur aliquis respectus praeter absolutam naturam utriusque in composito, non ut causa intrinseca, nec ratio causae (ac per hoc, non ut pars essentialis compositi, sed ut concomitans partem et causam, sine quo causa non causaret), non potest negari consequentia, nec consequens est inconveniens. Si autem intelligatur 'aliquid' idest, 'aliqua essentia absoluta', vel 'in composito ut pars essentialis eius' neutrum sequeretur". In *Met.* 8.4, (B<sub>2</sub>, fol. 115<sup>ra-rb</sup>; Wadding edition, IV, 757<sup>b</sup> [n. 7]).

<sup>74</sup> In *Met.* 8.4, n. 7 (Wadding edition, IV, 757<sup>b</sup>-758<sup>a</sup>).



(2) On the other hand, some passages in the questions on *Metaphysics* 8.4 look to be a straightforward defence of R'. Scotus objects to his account by invoking William of Ware's argument (*R2'.1*). Here, Scotus accepts the controversial Aristotelian premiss (P2): viz., that there cannot be a change merely in the category of relation (a premiss which, as we have seen, Scotus elsewhere rejects). Scotus argues that, in the case of the relation between matter and form in the constitution of a material substance, the relation can be corrupted only if there is a change in some absolute entity. The relevant change cannot be in matter and form since, as both R2 and R' accept, matter and form remain essentially unchanged in the constitution of a composite substance. The relevant change must therefore occur in some other absolute entity. To spell out what this other entity might be, Scotus distinguishes two ways in which matter and form could be related: (i) directly to each other; (ii) indirectly, in virtue of their both being (directly) related to some third entity distinct from either of them. The second of these is relevant to the case at hand: matter and form, Scotus argues, are related indirectly in virtue of their both being related to the whole composite—which composite is an absolute entity—of which they are parts:

When two things are mutually related to some third thing, such that it is impossible for them thus to be related unless one or both of them is thus related to some third thing, then their mutual relation can indeed be corrupted, without the corruption of any absolute thing in one of them, but merely in virtue of the corruption of some absolute, [which corruption is] posited in the third thing to which each of them is related. It is thus impossible for matter and form to be united unless each is part of a composite. Therefore, in a composite the relation of totality [*relatio totalitatis*] is corrupted when some absolute thing (which was the foundation for the relation of totality in it) is corrupted: and consequently the relation of [being] a part [is corrupted] in these [viz., matter and form], and thirdly the mutual relation in each of these [viz., matter and form], which cannot survive without this [viz., the relation of being a part].<sup>75</sup>

On this account, (P2) of (*R2'.1*) is not violated, since the destruction of the various relations between matter, form and the composite whole

<sup>75</sup> “Quando aliqua mutuo referuntur ad aliquod tertium et impossibile est illa sic referri nisi alterum illorum sic referatur ad aliquod tertium vel ambo, bene potest corrumpi eorum relatio mutua, sine corruptione alicuius absoluti in aliquo illorum, sola corruptione absoluti posita in illo tertio ad quod alterum illorum dicitur. Sic hoc impossibile est, materiam et formam esse unita, nisi utrumque sit pars compositi. Igitur in composito, corrupto aliquo absoluto quod erat fundamentum relationis totalitatis in ipso, corrumpitur relatio totalitatis, et ex consequenti relatio partis in istis, et tertio relatio mutua in utroque istorum: quae non potest stare sine illa”. *In Met.* 8.4 (B<sub>2</sub> fol. 115<sup>va</sup>; Wadding edition, IV, 758<sup>a-b</sup> [n. 9]); see also *In Met.* 8.4, n. 8 (Wadding edition, IV, 758<sup>a</sup>).

which they constitute can be explained in virtue of the corruption of the composite. But this argument entails, of course, that the whole composite is some third absolute entity over and above its matter and form. It thus entails both that Scotus reject R2 and that he defend his standard account R'.

Thus, if Scotus is to avoid being inconsistent in this *Metaphysics* question, he will have to defend R' throughout. Can we provide a reading of the texts discussed under (1) in this section which will render them consistent with R'? I explained above that the first of the two passages quoted denies merely that, in order for matter and form to compose a substance, some further absolute (in virtue of which matter and form would compose a substance) needs to be added to them—the denial of which is consistent with R'. What about the second passage? What Scotus is concerned to deny in this passage is that there is some absolute entity in the composite beyond matter and form. Perhaps we could read the difficult phrase in the last sentence: ‘ “Some absolute essence” or “[something] in the composite as its essential part” ’ to deny (respectively) merely some further accidental absolute essence or some further essential absolute part. The reading is a little forced: but unless we adopt some such strategy, we will be constrained to conclude that Scotus contradicts himself with the space of a couple of pages; a conclusion which, granted Scotus's usual care, is clearly unlikely.

Finally, the discussion of Aristotle's example of the syllable 'ab' can be explained by the context. If we look at the discussion of this example not as it occurs elsewhere in Scotus's writings, but as it occurs in Aristotle, we find that it is indeed about the material constituents of a thing, and not about matter and form at all. Hence, the difference between Scotus's discussions in the *Ordinatio* and the *Metaphysics* questions can be explained by the greater importance which might be ascribed to the Aristotelian text in the latter discussion.<sup>76</sup>

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<sup>76</sup> Maurice O'Fihely (Mauritius de Portu), in his annotations to the *Metaphysics* questions, printed in the Wadding edition, claims that Scotus's account of in the *Metaphysics* questions is different from that in the *Ordinatio*: and the difference he suggests is just that between R2 (or R1) and R' (see Wadding edition, IV, 757<sup>a</sup>). But I have given reasons for holding that the two accounts are not diverse. I thus disagree with O'Fihely.