Accidental Forms as Metaphysical Parts of Material Substances in Aquinas's Ontology

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1. Introduction

Following in the hylomorphic tradition of Aristotle, Thomas Aquinas holds that all material substances are composed of matter and form.[1] Like Aristotle, Aquinas also recognizes two different types of forms that material substances can be said to possess: substantial forms and accidental forms. Of which form or forms, then, are material substances composed? It seems clear that Aquinas means to include at least the substantial form of a material substance within its hylomorphic constitution, but what about the accidental forms, the various non-essential attributes of a material substance? Are they also meant to be included in the composite whole that is a material substance?

In this paper, I explore two competing models of Aquinas's ontology of material substances, which diverge on precisely this issue. According to what I will refer to as the "Standard Model," Aquinas's view is that a material substance is composed of prime matter and substantial form. On the Standard Model, the accidental forms of a material substance, its various non-essential attributes, do not enter into its composition; they are in no way parts of it. According to what I will refer to as the "Expanded Model," Aquinas's view is that a material substance is composed of prime matter, substantial form, *and* all of its accidental forms. On the

[1] That Aquinas holds that material substances are *composed* of matter and form, and that matter and form are thereby *parts* of material substances in some sense is evidenced in several passages, among which are the following: "Matter and form are said to be intrinsic to a thing, in that they are parts constituting that thing" (Aquinas, *DPN,* Ch. 3); "matter and form are said to be related to one another...they are also said to be related to the composite as parts to a whole and as that which is simple to that which is composite" (*Ibid*., Ch. 4). All references to the works of Aquinas are to the Latin versions of the texts available at http://www.corpusthomisticum.org/iopera.html. All English translations are my own, though I have made use of the standard English translations of these texts in preparing them.

Expanded Model, the accidental forms of a material substance do enter into its composition; each of its accidents is included among its metaphysical parts.[2]

The Standard Model of Aquinas's ontology of material substances is the *Standard* Model for a reason. It is not difficult to find passages that seem to support such a reading. In Chapter Two of his *De ente et essentia*, for example, Aquinas explains that "a human being is said to be composed of soul and body, as a certain third thing constituted out of *two* things, which is neither of them. For a human being is neither soul nor body."[3] And in Book I of his *Compendium theologiae*, Aquinas reiterates a similar point: "in other human beings, the union of soul and body constitutes an hypostasis and a suppositum, since there is nothing else over and above these *two* components."[4] Elsewhere, Aquinas also seems to deny that an accidental form could ever be a part of a material substance,[5] which accords well with what Aristotle himself says in his *Categories*.[6] Beyond these (and various other) passages, which seem to straightforwardly support the Standard Model, there are also at least two big-picture reasons for interpreting Aquinas in this way. As will be explored below, a realist interpretation of the general account of accidental and substantial change that Aquinas inherits from Aristotle, to which Aquinas commits himself in several of his works, seems to entail the Standard Model. Moreover, it seems that the Standard

[2] The term 'metaphysical part' is meant to distinguish form and matter from any of the 'physical parts' that a human person can be said to have, such as its functional or integral parts (hands, eyes, blood, bones) and its simple or elemental parts (water, fire, earth). For more on the various sorts of parts that a human person can be said to have in Aquinas's ontology, see, for example: Eleonore Stump, *Aquinas* (New York: Routledge, 2003): pp. 35, 42; Christopher M. Brown, *Aquinas and the Ship of Theseus: Solving Puzzles about Material Objects* (New York: Continuum, 2005): 53, 92-98; Robert Pasnau, *Metaphysical Themes 1274-1671* (Oxford: Oxford University Press, 2011): 7-11. By referring to them as 'parts' here, I do not mean to imply that matter and form are themselves physical objects of some sort. If the reader objects to my use of the term 'parts' to describe matter and form, then she may substitute the terms 'component' or 'constituent' throughout. I do not think that this has any effect on any of my arguments either way.

[3] Aquinas, *DEE*, Ch. 2, emphasis added.

[4] Aquinas, *CT*, B. 1, N. 211, emphasis added.

[5] See, for example, *Aquinas*, *In Met*., B. 7, Ch. 13, L. 13, N. 1579-1580.

[6] Aristotle, *Categories*, translated by J. L. Ackrill, in Jonathan Barnes (editor), *The Complete Works of Aristotle*, Vol. 1 (Princeton, NJ: Princeton University Press, 1984): 3 (Ch. 2, 1a20-25).

Model is the only model that preserves the sort of robust, substantial unity that Aquinas attributes to material substances.

Despite all of this evidence that can be given in favor of the Standard Model, I think that there are several other passages in Aquinas's texts that show that the Expanded Model more accurately reflects his view of material substances. I also think that there are at least a few other big-picture reasons for interpreting Aquinas in this way. The purpose of this paper, then, is to offer a case for the Expanded Model based on these observations. In the next section, I first outline the main claims of each of the two competing models for Aquinas's ontology of material substances, making note of their most significant points of disagreement. In section 3, I present what I take to be the main argument in favor of the Standard Model: that it is required by Aquinas's Aristotelian account of substantial and accidental change. In section 4, I consider a second major argument in support of the Standard Model: that including accidental forms within the hylomorphic constitution of material substances would undermine their substantial unity. In sections 5 and 6, I offer two arguments in favor of the Expanded Model. I argue that, given the way in which he argues for God's simplicity in question three of the *Prima pars*, and the way in which he consistently describes the difference between an essence and a *suppositum*, or individual substance, throughout his works, there is good reason to believe that Aquinas thinks that the accidental forms of a material substance are included among its metaphysical parts. In sections 7, 8, and 9, I attempt to motivate the Expanded Model further by offering three sets of replies to arguments for the Standard Model. In section 7, I offer a principled way of explaining away many of the passages that seem to support the Standard Model. In section 8, I reply to the main argument in favor of the Standard Model, arguing that a proponent of the Expanded Model can accommodate Aquinas's account of substantial and accidental change without having to

surrender any of the main commitments of the view. Finally, in section 9, I explain how material substances can include their accidental forms within their hylomorphic constitution while still maintaining their substantial unity and without collapsing into accidental unities.

2. Two Competing Models

The Standard Model of Aquinas's ontology of material substances is built on a distinction between two sorts of composite wholes: material substances and "accidental unities" (sometimes referred to as "accidental beings" or "accidental compounds"). The difference between these two sorts of composite wholes is as follows. Material substances are composed of prime matter and substantial form. Material substances include things such as elements, minerals, plants, non-human animals, and human beings. You and I are material substances. And so each of us is composed of prime matter and some particular substantial form (in our case, a rational soul). Accidental unities, on the other hand, are what we might call "second-order" wholes, composed of material substances (which, as we have just seen, are themselves composed of prime matter and substantial form) and accidental forms. When an accidental form comes to "inhere" in a material substance, that is, when a material substance comes to possess a certain non-essential attribute, this gives rise to an accidental unity. And for every accidental form possessed by a material substance, there exists an accidental unity that is composed of that accidental form and the material substance in which it inheres.[7] Accidental unities, then, include so-called "kooky objects,"[8] such as white-Socrates (the accidental unity composed of Socrates and his pallor) and

[7] That Aquinas is commited to the existence of such entities is supported by several texts, among which is the following from Chapter 6 of his *DEE*, "just as a substantial being results from form and matter when they are composed, so too an accidental being results from accident and subject when the accident comes to the subject." For a complete list of references in Aquinas's texts to "accidental beings" or "accidental unities," see Brown, *Aquinas and the Ship of Theseus*, 64, fn27. In section 3 below I explore in more detail how Aquinas's account of substantial and accidental change might be seen as committing him to the existence of accidental unities.

[8] The phrase 'kooky objects' comes from Gareth Matthews, "Accidental Unities," in Malcolm Schofield and Martha Craven Nussbaum (eds.), *Language and Logos: Studies in Ancient Greek Philosophy* (Cambridge: Cambridge University Press, 1982): 223-240, and it refers to those accidental unities in Aristotle's ontology that are composed of material substances and accidental forms. For similar accounts of "kooky objects" in Aristotle's ontology, see, for

seated-Socrates (the accidental unity composed of Socrates and his seated-ness), as well as single-substance artifacts, such as bronze statues (accidental unities composed of bronze and some particular shape) and thresholds (accidental unities composed of wood and some particular location). Now, you and I are material substances. And so, once again, according to the Standard Model, each of us is composed of prime matter and substantial form. But each of us also has several non-essential attributes, such as our particular height, weight, and various qualities that we possess, as well as any and all of our particular thoughts and actions. And so each of us is also a part of several different accidental unities, one for every non-essential attribute that we possess. The key point to emphasize here is that, on the Standard Model, a material substance does not possess its non-essential attributes as parts. It possesses each of its non-essential attributes via inherence, and it composes, together with those attributes, various accidental unities.

One recent proponent of the Standard Model is Jeffrey Brower. In his 2014 book, *Aquinas's Ontology of the Material World,* Brower characterizes the difference between a material substance and an accidental unity in Aquinas's ontology in the following way:

> Aquinas thinks that the corporeal world is completely analyzable in terms of two different types of hylomorphic compound – what he calls material substances and accidental unities, respectively. These two types of compound are distinguished both by their matter and by their form – that is to say, both by the type of being that serves as their substratum and by the type that inheres in their matter…Aquinas thinks of all material substances as composed of prime matter

example: Frank Lewis, "Accidental Sameness in Aristotle," *Philosophical Studies*, Vol. 42, No. 1 (Jul., 1982): pp. 1-36; S. Marc Cohen, "Kooky Objects Revisited: Aristotle's Ontology," *Metaphilosophy*, Vol. 39, No. 1 (Jan., 2008): 3-19; S. Marc Cohen, "Accidental Beings in Aristotle's Ontology," in Georgios Anagnostopoulos and Fred D. Miller, Jr. (eds.), *Reason and Analysis in Ancient Greek Philosophy* (Dordrecht: Springer, 2013): 231-242; Michael J. Loux, "Aristotle's Constituent Ontology," in Dean W. Zimmerman and Karen Bennett (eds.), *Oxford Studies in Metaphysics*, Vol. 2 (Oxford: Oxford University Press, 2006): 207-250; Michael J. Loux, "Aristotle's Hylomorphism," in Novak, Lukas and Daniel D. Novotny (eds.), *Neo-Aristotelian Perspectives in Metaphysics* (New York: Routledge, 2014): 138-163. For interpretations of Aristotle that reject the existence of kooky objects, see: Theodore Scaltas, *Substances and Universals in Aristotle's Metaphysics* (Ithaca, NY: Cornell University Press, 1994): 97-113, 150-154; Christopher Shields, *Order in Multiplicity: Homonymy in the Philosophy of Aristotle* (Oxford: Clarendon Press, 1999): 155-175.

> and substantial form, whereas he thinks of all accidental unities as composed of substances and accidental forms.[9]

Other proponents of the Standard Model include Christopher Brown,[10] David Oderberg,[11] Robert Pasnau,[12] and Ross Inman.[13]

The Expanded Model of Aquinas's ontology of material substances is built on a distinction between two sorts of metaphysical parts that material substances can be said to possess: essential parts and accidental parts. The difference between these two sorts of parts is as follows. Essential parts are those metaphysical parts of a material substance that comprise its essence or nature. The essential parts of a material substance include its matter (further specified in some way) and its substantial form.[14] Typically, when a substance loses one or more of its essential parts that substance ceases to exist.[15] Accidental parts, on the other hand, are those metaphysical parts of a material substance that lie outside of its essence. The accidental parts of a substance include all of its accidental forms. Material substances can, and frequently do, lose and gain such parts over time.[16] Now, you and I are material substances. And so, according to the

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[9] Jeffrey E. Brower, *Aquinas's Ontology of the Material World: Change, Hylomorphism, and Material Objects* (Oxford: Oxford University Press, 2014): 9. See also, Jeffrey E. Brower, "Matter, Form, and Individuation," in Brian Davies and Eleonore Stump (eds.), *The Oxford Handbook of Aquinas* (Oxford: Oxford University Press, 2012): 85-103; Jeffrey E. Brower, "Aquinas on the Individuation of Substances," in Robert Pasnau (ed.), *Oxford Studies in Medieval Philosophy*, Vol. 5 (Oxford: Oxford University Press, 2017):127-128.

[10] Brown, *Aquinas and the Ship of Theseus*, 53, 64

[11] David S. Oderberg, *Real Essentialism* (New York: Routledge, 2007): 167-170

[12] Robert Pasnau, "Form and Matter," in Robert Pasnau (ed.), *The Cambridge History of Medieval Philosophy* (Cambridge: Cambridge University Press, 2010): 642; Pasnau, *Metaphysical Themes*, 101-102; Robert Pasnau, "Mind and Hylomorphism," in John Marenbon (ed.), *The Oxford Handbook of Medieval Philosophy* (Oxford: Oxford University Press, 2012): 501.

[13] Ross Inman, "Neo-Aristotelian Plenitude," *Philosophical Studies*, Vol. 168, No. 3 (Apr. 2014): 588-596.

[14] There are complications here concerning which sort of matter belongs to the essence of a material substance and how this matter relates to prime matter, but I will set aside those complications for the moment (I revisit them in section 6 below). Let the term 'matter' here stand in for whatever sort of matter it is that belongs to the essence of a material substance.

[15] Though on some interpretations of Aquinas's account of the afterlife, human persons can and do survive the loss of their matter (see, Brower, *Aquinas's Ontology*, Chapter 13 for an excellent overview of the relevant debate).

[16] "Proper accidents," those accidents that "flow" necessarily from a substance's substantial form would, however, be an exception to this generalization. For Aquinas's account of proper accidents, see, for example: Aquinas, *DEE*, Ch. 6; Aquinas *DPN*, Ch. 2; Aquinas, *ST*, I, Q. 3, A. 6, Co.; Aquinas, *ST*, I, Q. 77, A. 1, Ad. 5; Aquinas, *QDA*, Q. 1, A. 12, Ad. 7.

Expanded Model, each of us has both essential parts (matter and substantial form), and accidental parts (an accidental form corresponding to each of our non-essential attributes). The key point to emphasize here is that, on the Expanded Model, a material substance's prime matter and substantial form do not exhaust its metaphysical parts. An individual material substance, or "*suppositum,*"[17] includes among its metaphysical parts its substantial form, its prime matter *and* all of its accidental forms.

One recent proponent of the Expanded Model is Eleonore Stump. In her 2003 book, *Aquinas*, she characterizes individual material substances, or "supposits" as follows:

> any thing which has a substantial form necessarily also has accidents, even though it is not necessary that it have one accident rather than another. So a substantial form is not the only metaphysical constituent of a thing; any thing will also have accidental forms as metaphysical constituents. In addition, for material substances, the matter that makes the substantial form of a material supposit a particular is also a constituent of the supposit. So any supposit has more metaphysical constituents than just a substantial form. Insofar as all these constituents compose the supposit, the supposit is not identical to any subset of them.[18]

Other proponents of the Expanded Model include Christopher Hughes,[19] Richard Cross,[20] J.L.A. West,[21] Michael Gorman,[22] and John Wippel.[23]

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[17] The term 'suppositum' or 'supposit' is one that Aquinas himself uses to refer to individual substances. The reader may notice that in some of the passages featured below Aquinas also frequently uses the term 'hypostasis' to refer to such entities. While the terms 'individual substance', 'suppositum' and 'hypostasis' have slightly different meanings for Aquinas (see Aquinas, *ST,* I, Q. 29, A. 2, Co. for more on this), these differences are not relevant to the present discussion, and so for our present purposes, these three terms can be seen as interchangeable.

[18] Stump, *Aquinas*, 50; see also *Ibid*., 44-45, 56, and 112-113.

[19] Christopher Hughes, *Aquinas on Being Goodness and God* (New York: Routledge, 2015): 68

[20] Richard Cross, "Aquinas on Nature, Hypostasis, and the Metaphysics of the Incarnation," *The Thomist*, Vol. 60, No. 2 (1996): 175-176

[21] J.L.A. West, "The Real Distinction Between Supposit and Nature," in Peter Kwasniewski (ed.), *Wisdom's Apprentice: Thomistic Essays in Honor of Lawrence Dewan, O.P*. (Washington, D.C.: Catholic University of America Press, 2007): 92, 97

[22] Michael Gorman, "Uses of the Person-Nature Distinction in Aquinas's Christology," *Recherches de Théologie et Philosophie Médiévales*, Vol. 67, No. 1 (2000), 59, 66; Michael Gorman, *Aquinas on the Metaphysics of the Hypostatic Union* (Cambridge: Cambridge University Press, 2017): 31-33.

[23] Wippel, *Metaphysical Thought*, 241, 243, 244, 245-246, 247, 248. At pages 101-102 of his *Metaphysical Themes*, Pasnau also briefly traces a distinction in the works of some medieval philosophers between "thin metaphysical substances" (composites of prime matter and substantial form) and "thick concrete substances" (composites of prime matter, substantial form, and various accidental forms), which seems to correspond to my distinction here between essences and individual substances.

3. Setting the Standard: Substantial and Accidental Change

One of the main reasons for thinking that the Standard Model more accurately reflects Aquinas's ontology of material substances is that the account of substantial and accidental change that he inherits from Aristotle seems to require it. Aquinas most clearly articulates his account of substantial and accidental change in two places: Chapter One of his *De principiis naturae* and in Lecture 12 of his commentary on Ch. 7 of Aristotle's *Physics*.[24] In both of these texts, Aquinas explains, following Aristotle, that there are at least three things required for any real change. First, there must be something that underlies or undergoes the change, something that persists through the change. This is the subject of the change. Second, there must be some characteristic or attribute that the subject possesses prior to the change, which does not survive the change. Sometimes this is simply the lack of the characteristic or attribute to be gained; other times it is a characteristic or attribute that is contrary to the characteristic or attribute to be gained. Third, there must be some characteristic or attribute that the subject possesses after the change, the characteristic or attribute that it has gained in the change. These are the three key aspects or elements of any real change, according to both Aristotle and Aquinas. But there appear also to be two further aspects or elements that Aristotle and Aquinas wish to include. According to Aristotle and Aquinas, in any real change, there must be something that is corrupted (something that ceases to be) and something that is generated (something that comes to be).[25] And in any real change, that which is corrupted and that which is generated must be

[24] Aquinas, *DPN*, Ch. 1; Aquinas, *In Phys*., B. I, Ch. 7, L. 12.

[25] Commenting on Ch. 7 of Aristotle's *Physics*, Aquinas remarks that "He [Aristotle] says, therefore, first that, with these suppositions having been put forward, if one wishes to consider [coming to be] in all the things which come to be naturally, he will accept this: that there must always be some subject to which the coming to be is attributed, and that that subject, although one in number and subject, is nevertheless not the same in species or account. For when it is attributed to a human being that he becomes musical, the human being is indeed one in subject, but two in account. For human being and the non-musical are not the same according to account. *Aristotle does not, however, mention here the third point, namely, that in every generation there must be something generated, since this is obvious*" (Aquinas, *In Phy*., B. I, Ch. 7, L. 12, N. 104, emphasis added).

understood as composite entities. That which is corrupted in any real change is the composite whole that includes the subject and the characteristic or attribute that is lost in the change. That which is generated in any real change is the composite whole that includes the subject and the characteristic or attribute that is gained in the change.

Now, there are two kinds of change according to Aristotle and Aquinas: substantial and accidental. In a substantial change, the subject is prime matter, matter with no characteristics or attributes of its own.[26] The characteristic or attribute that inheres in prime matter prior to substantial change, which does not survive the change, is some particular substantial form. The characterstic or attribute that inheres in prime matter after a substantial change, which it has gained in the change, is some other substantial form. That which is corrupted in a substantial change is the composite whole that includes prime matter and the first substantial form. That which is generated in a substantial change is the composite whole that includes prime matter and the second substantial form. The example that Aquinas gives in the *De principiis* of this sort of change is the generation of a human being.[27] He explains that in the generation of a human being sperm and menstrual blood are the composites that are corrupted, a human being is the composite that is generated, and prime matter is the subject the remains throughout.

In an accidental change, the subject is itself composite. The subject of an accidental change is a composite whole that includes prime matter and some particular substantial form. Both of the constituents of this composite remain throughout the change. The characteristic or attribute possessed by this composite prior to accidental change, which does not survive the change, is some particular accidental form. The characteristic or attribute possessed by the composite after an accidental change, which it has gained in the change, is some other accidental

[26] See, for example: Aquinas, *DPN*, Ch. 2. For an excellent analysis of various passages in Aquinas's texts on prime matter, as well as a survey of the scholarly literature on this topic, see Wippel, *Metaphysical Thought*, 312-327.
[27] Aquinas, *DPN*, Ch. 1.

form. This much of the account parallels substantial account rather closely. But is there also some composite entity that is corrupted in an accidental change and some composite entity that is generated? Both Aristotle and Aquinas appear to say so. What is corrupted in an accidental change is a composite whole that includes the composite of prime matter and substantial form and the first accidental form. And what is generated in an accidental change is a composite whole that includes the composite of prime matter and substantial form and the second accidental form. The example that Aristotle gives us of this sort of change in the *Physics* is one in which a human being comes to be characterized as musical.[28] He explains that in such a change, there are three composite entities involved: (1) an "unmusical man," a composite of prime matter, substantial form, and non-musicality, which is corrupted in the change, (2) a "musical man," a composite of prime matter, substantial form, and musicality, which is generated in the change, and (3) a human being, a composite of prime matter and substantial form, which remains throughout the change. As Aristotle himself explains in the relevant passage, "One part survives, the other does not: what is not an opposite survives (for the man survives), but 'not-musical' or 'unmusical' does not survive, nor does the compound of the two, namely the unmusical man."[29]

Importantly, Aquinas appears to follow Aristotle in this understanding of accidental change. In his commentary on this passage, he affirms that in an accidental change there is a composite entity, the unmusical man that ceases to exist:

> when someone has already been made musical, the human being remains, but the opposite does not, were it to be a negative opposite, such as the non-musical, or a privation or contrary, such as the unmusical. Nor does the composite of subject and the opposite remain, for the non-musical man does not remain after the man has been made musical. And so coming to be is attributed to these three things: for it was said that the man becomes musical, and the non-musical becomes

[28] Aristotle, *Physics*, translated by R. P. Hardie and R. K. Gaye, in Barnes (ed.), *The Complete Works of Aristotle*, Vol. 1, (Princeton, NJ: Princeton University Press, 1984): Ch. 7.
[29] Aristotle, *Physics*, B. I, Ch. 7, 190a18-21).

> musical, and the non-musical man becomes musical. Of these three, only the first remains at the completion of the production, the other two do not.[30]

And, on the other side of the change, in the *De principiis*, he describes the accidental change in which a human being becomes white as generating "a white thing," that is, a white human being:

> when a substantial form is introduced, something is said to come to be absolutely, just as we say that a human being comes to be or is generated. When an accidental form is introduced, however, something is not said to come to be absolutely, but rather it is said to come to be in this way, just as when a human being comes to be white, we do not say that a human being comes to be absolutely or that a human being is generated; rather, we say that a white thing comes to be or is generated.[31]

Aquinas's account of substantial and accidental change, then, an account which he inherits from Aristotle, and to which he commits himself in several of his works, can be seen to support the Standard Model in two ways. First, in the context of these discussions both he and Aristotle refer to the composite of prime matter and substantial form by the name of a material substance. That which is composed of prime matter and a rational soul, for example, that which undergoes the accidental change from unmusical to musical is referred to as a human being. Second, if we take seriously Aristotle's and Aquinas's remarks that in every change there must be something corrupted and something generated, and their remarks that in an accidental change it is a composite of prime matter, substantial form, and an accidental form that is corrupted, and a composite of prime matter, substantial form, and an accidental form that is generated, then this appears to commit them both to an understanding of accidental unities as complexes of precisely this sort: each accidental unity is a composite of a single material substance composed of prime matter and substantial form, and a single accidental form. Aquinas's preferred accounts of substantial and accidental change, then, appear to require the Standard Model. As Brower puts it, summarizing his case for the Standard Model,

[30] Aquinas, *In Phy*., B. I, Ch. 7, N. 102.
[31] Aquinas, *DPN*, Ch. 1.

> just as Aquinas's realism about matter (or enduring substrata) is an immediate consequence of his general account of change, so too his realism about prime matter (or enduring substrata for substantial change) is an immediate consequence of his specific account of change. Again, just as his realism about hylomorphic compounds (including his commitment to postulating distinct compounds to serve as the termini for every change) is an immediate consequence of his general account of change, so too his realism about accidental unities (including his commitment to postulating distinct accidental unities to serve as the termini for every accidental change) is an immediate consequence of his specific account of change.[32]

4. Setting the Standard II: *Unum per accidens, Unum simpliciter*

One reason to think that accidents or accidental forms cannot be included among the metaphysical parts of material substances in Aquinas's ontology is that including accidental forms within the hylomorphic constitution of material substances would seem to diminish the robust, substantial unity that Aquinas says material substances possess. The worry here is that by including accidental forms within the hylomorphic constitution of material substances the Expanded Model so diminishes the internal unity of material substances that it makes material substances themselves into mere accidental unities. The Standard Model, on the other hand, preserves the sort of robust, substantial unity that Aquinas attributes to material substances, and properly distinguishes the kind of unity exhibited by material substances from the kind of unity exhibited by the accidental unities of which they are parts. And for that reason, the Standard Model seems to more accurately reflect Aquinas's own ontology of material substances.

To see why this might be the case, we need to first explore the various kinds of unity found in Aquinas's ontology. For Aquinas, unity or oneness comes in various kinds and in various degrees. Following Aristotle, Aquinas recognizes several ways in which something can be unified, several ways in which something can be considered one thing.[33] And these various

[32] Brower, *Aquinas's Ontology*, 82.

[33] See, for example, Aristotle, *Metaphysics*, translated by W.D. Ross, in Jonathan Barnes (editor), *The Complete Works of Aristotle*, Vol. 2 (Princeton, NJ: Princeton University Press, 1984): 1603-1606 (B. 5, Ch. 7) and Aquinas's *In Met*., B. 5, Ch. 7, L. 7-8.

ways of being unified, ways of being one, can be placed along a spectrum, from least unified to most unified. The primary distinction that Aquinas makes between kinds of unity in composite entities is between unities that are "accidentally one" (*unum per accidens*) and those that are "simply" or "absolutely one" (*unum simpliciter*).[34] Those entities that are accidentally one are less unified, are one in a lesser sense, than those that are simply or absolutely one.

Throughout his works, Aquinas gives three sorts of examples of composite entities that are merely accidentally one (*unum per accidens*) and not simply or absolutely one (*unum simpliciter*). The first of these are what we might call multi-substance artifacts, such as houses or heaps of stones. As Aquinas explains, a multi-substance artifact is an entity composed of two or more material substances (and often two or more material substances of different types) joined by some accidental form, such as spatial proximity, some more specific spatial arrangement, or some coordinated function or action.[35]

The second example of composite entities that are merely accidentally one are the accidental unities discussed in section 2 above: "kooky objects" such as white-Socrates and musical-Socrates, and single-substance artifacts such as bronze statues and thresholds.[36] As we have seen, an accidental unity is an entity composed of a single material substance or subject and a single accidental form. White-Socrates, for example, is composed of a rational soul and prime

[34] See, for example, Aquinas, *SCG*, I, Ch. 18, N. 2; Aquinas, *SCG*, II, Ch. 56, N. 10-18; Aquinas, *SCG*, II, Ch. 57, N. 2-3; Aquinas, *SCG*, II, Ch. 58, N. 108; Aquinas, *ST*, I, Q. 11, A. 1, Ad. 2; Aquinas, *ST*, I, Q. 76, A. 1, Co.; Aquinas, *ST*, I, Q. 76, A. 3, Co.; Aquinas, *ST*, I-II, Q. 17, A. 4, Co.; Aquinas, *ST*, III, Q. 2, A. 1, Co.; Aquinas, *QDA*, A. 11, Co.; Aquinas, *QDSC*, A. 3, Co.; Aquinas, *QDUVI*, A. 3, co.; Aquinas, *QDUVI*, A. 3, Ad. 5; Aquinas, *QDUVI*, A. 4, Co.; Aquinas, *QQ*, I, Q. 4, A. 1, Co.; Aquinas, *CT*, B. I, Ch. 90; Aquinas, *In PH*., B. I, L. 8, N. 11; Aquinas, *In Phy*., B. 1, Ch. 2, L. 3, N. 21-22; Aquinas, *In Met*. B. 5, Ch. 6, L. 7, N. 843-847; Aquinas, *In Met*., B. 7, Ch. 17 L. 17, N. 1672-1674; Aquinas, *In Sent*., B. I, D. 24, Q. 1, A. 1, Co.

[35] See, for example, Aquinas, *SCG*, II, Ch. 56, N. 10; Aquinas, *SCG*, II, Ch. 57, N. 3; Aquinas, *SCG*, II, Ch. 58, N. 5; Aquinas, *ST*, I-II, Q. 17, A. 4, Co; Aquinas, *ST*, III, Q. 2, A. 1, Co.; Aquinas, *QDA*, Q. 1, A. 11. Co.; Aquinas, *In Met*., B. 7, Ch. 17, L. 17, N. 1672-1674.

[36] See, for example, Aquinas, *SCG*, II, 56, Ch. 12; Aquinas, *ST*, I, Q. 76, A. 3, Co.; Aquinas, *QDSC*, A. 3, Co.; Aquinas, *QQ*, I, Q. 4, A. 1, Co.; Aquinas, *In Met*., B. 5, Ch. 6, L. 7, N. 843-845; Aquinas, *In Sent*. B. I, D. 24, Q. 1, A. 1, Co.; Aquinas, *In Sent*., L. 3, D. 7, Q. 1, A. 1, Ad. 5.

matter, and an accidental form of whiteness. And musical-Socrates is composed of the same rational soul, the same prime matter, and an accidental form of musicality.

In some of these "unity passages," Aquinas also refers to what we might call multi-accident accidental unities, such as white-musical-Socrates, or just-musical-Socrates.[37] According to Aquinas, in some contexts, we seem to speak of accidental unities that include more than one accidental form. For example, we may want to concentrate on two of Socrates' features: his pallor and his musicality. The object of our consideration, white-musical-Socrates, would, then, be understood as composed of a rational soul, prime matter, an accidental form of whiteness, and an accidental form of musicality. Similarly, just-musical-Socrates would be understood as composed of the same rational soul, the same prime matter, the same accidental form of musicality, and an accidental form of justice. Now, it is not clear from these passages whether Aquinas means to recognize the extra-mental existence of such multi-accident accidental unities. He speaks of them in the same sorts of contexts in which he speaks of single-accident accidental unities, and so if we are willing to recognize the existence of the former, then perhaps we ought, for the same reasons, to recognize the existence of the latter. However, unlike single-accident accidental unities, multi-accident accidental unities do not seem necessary to account for any kind of real changes in the world. It would seem that any kind of accidental change involving two or more accidents could be accounted for just as well by means of the corruption of two single-accident accidental unities. It is also not clear whether Aquinas means for multi-accident accidental unities to extend further so as to include triple or quadruple-accident accidental unities. To my knowledge, the only multi-accident accidental unities that Aquinas mentions in any of his works are those that involve only two accidents. The

[37] Aquinas, *QDA*, Q. 1, A. 11. Co.; Aquinas, *QDUVI*, A. 3, Co.; Aquinas, *CT*, B. I, Ch. 90; Aquinas, *In PH*., B. I, L. 8, N. 11; Aquinas, *In Met*., B. 5, Ch. 6, L. 7, N. 843.

main point here, however, is that Aquinas seems to say that any entity that includes among its metaphysical parts one or more accidental forms is only accidentally one (*unum per accidens*) and not simply or absolutely one (*unum simpliciter*).

In contrast to these three types of composite entities that possess mere accidental unity, there are at least three sort of examples that Aquinas gives of composite entities that are indeed simply or absolutely one and not merely accidentally one. The first of these are compounds of matter and form, in particular of prime matter and substantial form. These sorts of unions produce composite substances. The union of soul and body in a human being, for example, is an absolute, substantial union, and this union produces a single, composite substance.[38]

The second example that Aquinas gives of a simple, absolute unity is the unity exhibited by the various material parts of a material substance. According to Aquinas, every material substance possesses at least three kinds of material parts: quantitative parts, such as a right half and a left half, functional parts, such as a human being's head, his or her hands, and his or her flesh, bones, and blood, and elemental parts, such as the various atoms and molecules of which the material substance is composed. Importantly, for Aquinas, none of these material parts are substances in themselves.[39] What this means is that none of these parts have their own independent identity apart from the whole. Each one depends for both its existence and its identity on the whole of which it is a part. When a water molecule becomes a part of the human body, for example, the water molecule loses its substantial form and comes to be enformed by

[38] See, for example, Aquinas, *SCG*, II, Ch. 56, N. 18; Aquinas, *SCG*, II, Ch. 57, N. 3; Aquinas, *SCG*, II, Ch. 58, N. 8; Aquinas, *QQ*, XII, Q. 7, A. 1, Co.; Aquinas, *In Sent*., L. 3, D. 27, Q. 1, A. 1, Ad 5; Aquinas, *In Sent*., L. 4, D. 49, Q. 2, A. 1, Co.

[39] See, for example, Aquinas, *In Met*., B. 5, Ch. 26, L. 21, N. 1102; Aquinas, *In Met*., B. 7, Ch. 13, L. 13, N. 1588, 1591; Aquinas, *In Met*., B. 7, Ch. 16, L. 16, N. 1631-1632; Aquinas, *QQ*, IX, Q. 2, A. 1, Co. It should be noted that Aquinas's claim that each individual substance has one and only one substantial form (and thus has no substances as parts) sets him against most other philosophers in the medieval period. For discussion, see Pasnau, *Metaphysical Themes*, 574-578; Thomas M. Ward, *John Duns Scotus on Parts, Wholes, and Hylomorphism* (Leiden: Brill, 2014): 76-109.

the substantial form of the whole of which it is now a part. And this applies to all other material parts. As Aquinas explains, the simple, absolute unity that is a material substance is composed not of smaller material substances with their own substantial forms, but of various virtual or potential parts, all enformed by the single substantial form of the whole.[40]

The third example that Aquinas gives of a composite entity that is absolutely or simply one is the incarnate Christ. According to Aquinas, the divine and human natures of Christ are not merely accidentally united to another. They are made absolutely or simply one thing by virtue of the absolute, simple unity of the divine essence.[41]

Setting aside the special case of the incarnation (for now), then, Aquinas recognizes three sorts of accidental unities and two sorts of simple or absolute unities among composite entities. These two sorts of simple or absolute unities are the union of substantial form and prime matter in a material substance and the unity exhibited by the various material parts of a material substance. Anything less than either of these robust, substantial unities turns out to be a mere accidental unity of one of the three types outlined above.

But what is it that makes the union of substantial form and prime matter in a material substance, or the unity exhibited by the various material parts of a material substance, an absolute or simple unity? And what is it that makes the union of one or more material substances and an accidental form, or a single subject and one or more accidental forms, a mere accidental unity? In the context of these sorts of discussions, Aquinas often suggests that the general metaphysical principle at work in discerning whether something possess accidental or absolute

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[40] See, for example, Aquinas, *ST*, I, Q. 76, A. 4, Ad. 4; Aquinas, *In BT*, Q. 4, A. 3, Ad. 6; Aquinas, *DME*; Aquinas, *QDA*, A. 9, Ad. 10; Aquinas, *QQ*, I, Q. 4, A. 1, Ad. 3; Aquinas, *SCG*, II, Ch. 56, N. 4. For more on Aquinas's theory of virtual presence and how exactly we should understand this notion, see, for example: Joseph Bobik, *Aquinas on Matter and Form and the Elements* (Notre Dame, IN: University of Notre Dame Press, 1998); Christopher Decaen, "Elemental Virtual Presence in St. Thomas," *The Thomist*, Vol. 64 (Apr., 2000): 271-300; Michael Hector Storck, "Parts, Wholes, and Presence by Power: A Response to Gordon P. Barnes," *The Review of Metaphysics*, Vol. 62 (Sep., 2008): 45-59.

[41] See, for example, Aquinas, *ST*, III, Q. 2, A. 1, Co.; Aquinas, *QDUVI*, A. 3, Co., Ad. 5; Aquinas, *QDUVI*, A. 4, Co.

unity is that no union between two actual things can ever produce an absolute or simple unity.[42] Multi-substance artifacts, for example, fail to possess absolute or simple unity because they include among their constituents two or more actual material substances. Each individual material substance, on the other hand, does possess absolute or simple unity because it does not include among its constituents any actual material substances as parts, only virtual or potential substances. Similarly, single and double-accident accidental unities fail to possess absolute or simple unity because they include among their constituents two or more actual forms: at least one substantial form and at least one accidental form. Each substantial form-prime matter compound, on the other hand, does possess absolute or simple unity because it does not include among its constituents any actual forms other than its substantial form. The prime matter in each of these compounds is, as we have seen, pure potentiality, possessing no actuality of its own.

Putting all of these pieces together, we can begin to see why Aquinas's account of accidental and substantial unity would seem to pose problems for the Expanded Model. Aquinas is clear that he thinks that material substances are simply or absolutely one (*unum simpliciter*) and not merely accidentally one (*unum per accidens*). But, setting aside (for the moment) the case of the incarnation, Aquinas only recognizes two instances of simple or absolute unity among composite entities: the union of substantial form and prime matter in a material substance, and the unity exhibited by the various material parts of a material substance. All other unions turn out to be mere accidental unities of one of the three types outlined above. Now, based on my descriptions of the various kinds of unities found in Aquinas's ontology above, and my earlier description of the Expanded Model in section 2, it seems that the Expanded Model's conception of material substances places material substances under the category of

[42] See, for example, Aquinas, *SCG*, I, Ch. 18, N. 2; Aquinas, *SCG*, II, Ch. 56, N. 12, 14; Aquinas, *SCG*, II, Ch. 58, N. 8; Aquinas, *ST*, III, Q. 2, A. 1, Co.; Aquinas, *QDA*, Q. 1, A. 11. Co.; Aquinas, *QDSC*, A. 3, Co.; Aquinas, *QQ*, I, Q. 4, A. 1, Co.; Aquinas, *In Sent*., L. 3, D. 2, Q. 1, A. 1, QC. 3, Ad. 1.

multi-accident accidental unities. For, like multi-accident accidental unities, material substances on the Expanded Model include among their metaphysical parts substantial form, prime matter, and various accidental forms. As I said earlier, it is not clear whether Aquinas means to recognize the existence of accidental unities that include more than two accidental forms, but he does provide, in the context of these discussions, the general framework for modeling such entities. Such entities would include among their metaphysical parts the substantial form and the prime matter of the subject, as well as all of the material substance's accidental forms. And because such an entity would include among its parts several actual forms, by Aquinas's own criteria it seems that the greatest unity that it could possess would be mere accidental unity or oneness. Understanding material substances as possessing these sort of metaphysical parts, then, which the Expanded Model does, would seem to significantly diminish the robust, substantial unity that Aquinas himself clearly and consistently attributes to material substances throughout his works, making them into nothing more than complex accidental unities.

5. The Case for Expansion I: Divine Simplicity

The main disagreement between the Standard Model and the Expanded Model pertains to accidental forms. On the Standard Model, accidental forms are "outside" of material substances, as it were; they are *not* included among their metaphysical parts. On the Expanded Model, accidental forms are, in a sense, "inside" of material substances; they *are* included among their metaphysical parts. If it can be shown, then, that Aquinas does in fact consider accidental forms to be included among a material substance's metaphysical parts, then this would go a long way toward showing that the Expanded Model is a more accurate representation of Aquinas's ontology. And so, in making my case for the Expanded Model, I would like to begin by focusing on those texts that seem to support such a conclusion.

One reason to think that, on Aquinas's view, accidents or accidental forms are indeed parts of material substances is the way in which he argues for God's simplicity in question three of the *Prima pars*.[43] Here Aquinas argues for God's simplicity negatively, that is, by giving an exhaustive list of all of the ways in which something can be composite and all of the different sorts of parts a composite thing can have, and then systematically arguing that the God whose existence he has demonstrated in the previous question cannot be composite in any of those ways or have any of those sorts of parts. The structure of question three is as follows: In article one, Aquinas considers whether God is a body, that is, whether God has any physical or quantitative parts. In article two, Aquinas considers whether God is composed of matter and form, that is, whether God has any essential parts. In article three, Aquinas considers whether God is the same as His essence or nature, that is, whether God has any non-essential parts. In article four, Aquinas considers whether essence and existence are the same in God, that is, whether God's existence (His "*esse*") is some part of Him distinct from His essence. In article five, Aquinas considers whether God is contained in a genus, that is, whether God has any "definitional parts." In article six, Aquinas considers whether there are any accidents in God, and here I want to interpret this article as asking whether God has any accidental parts (I will return to this point shortly). In article seven, Aquinas considers whether God is altogether simple, that is, whether God has any other sorts of parts not mentioned in the previous articles. And, in article eight, Aquinas considers whether God enters into the composition of other things, that is, whether God Himself is a part of anything else.

Now, based on this brief summary of question three, it is clear that there is a very important shift that occurs between articles seven and eight. In article seven, Aquinas considers the various ways in which something can be composite and the various sorts of parts a composite

[43] Aquinas, *ST*, I, Q. 3.

thing can have. In article eight, however, Aquinas considers the ways in which some entity can itself be a part of some further composite. The shift here is between an analysis of the possibility of a decomposition of God into parts and the composition of some further composite that has God as one of its parts. Now, one natural way of reading this question is to see the shift between article seven and article eight as signaling a shift between not only articles seven and eight, but between article eight and all of the other articles that came before. In this way, we might read article seven as a sort of summary of the preceding articles, summarizing all of the ways in which something can be composite and all of the parts that a composite thing can be said to have discussed earlier, and inquiring further whether these ways of being composite and these various sorts of parts form a comprehensive list, that is, whether there are any other ways God could be composite, or any other sorts of parts that God might be said to have. Once Aquinas has established the comprehensiveness of articles one through six, he can then move on to ask a different sort of question in article eight, one that is only indirectly about what sorts of parts God might be said to have.

In support of this interpretation of the structure of his argument, consider the beginning of his reply in article seven:

> That God is entirely simple can be shown in several ways. First, from what has been said above. For, in God there is no composition of quantitative parts, since He is not a body, nor of form and matter. Nor is there any difference in God between His nature and His *suppositum*, nor any difference between His essence and His existence. Nor is there any composition of genus and difference in Him, or of subject and accident. It is clear, then, that God is in no way composite, but is entirely simple.[44]

Here we see that Aquinas himself views each of the preceding articles as detailing a particular way in which something can be composite. He also views the articles collectively as offering a comprehensive list of all of the possible ways in which something can be composite. Article

[44] Aquinas, *ST*, I, Q. 3, A. 7, Co.

eight, then, cannot be asking the very same question as the other articles (whether God is in any way composite), since Aquinas already takes himself to have decisively proven that point. Article eight asks a very different, though importantly related, question about God's nature – whether He can be said to be a part of any composite.[45]

There are two important conclusions to draw from my interpretation of Aquinas's argument in question three. First, if I am right that articles one through six all detail various ways in which something can be composite, then article six, which considers whether there are any accidents in God, should be read as asking whether God has any accidental parts. Now, if Aquinas held that accidents were no part of any substance, then it would not make any sense to ask whether they are parts of God. All of the other ways of being composite mentioned in the other articles are in fact true descriptions of other substances, according to Aquinas. And so the fact that, on my interpretation, Aquinas is asking whether God has any accidents as parts is an indication that he holds that in the case of other individual substances, they do have accidents as parts. On my reading, that God is simple in that he does not have any accidents as parts is one more way in which God differs from other existing things.[46]

Secondly, my interpretation of question three also counts against the Standard Model. Recall that, according to the Standard Model, for Aquinas, accidental forms are not parts of material substances. Rather, accidental forms are parts of accidental unities, the other parts of which are material substances. According to the Standard Model, then, all other substances besides God are parts of larger composites, namely, accidental unities. We should, expect, then,

[45] For a similar interpretation of Aquinas's mode of argumentation in his treatment of Divine simplicity in the *Summa*, see Peter Weigel, *Aquinas on Simplicity* (Bern: Peter Lang, 2008).

[46] Given that article four asks whether God's existence is distinct from his essence, my argument here might also lend support to the claim that, for Aquinas, the "esse" or "act of existence" of every other thing should be included among its metaphysical parts. Since the focus of this paper is on the formal constituent(s) of material substances, I will have to sidestep issues pertaining to *esse* or acts of existence. I do not mean to reject the claim that material substances include among their metaphysical parts their *esse* or act of existence. I only mean to bracket these issues for the time being.

that there would be some mention of this in article eight, since it is here that Aquinas considers whether God is a part of any composite. At the very least, we should expect that Aquinas would explain to the reader that, since it has already been shown that there are no accidents in God, we can conclude that God is not part of any accidental unity. In many of the other articles, Aquinas freely refers back to previous articles when the conclusions there are relevant for the argument at hand.[47] But we do not see any reference to article six in article eight. Instead, the only place in which God's relation to accidents is discussed is in article six itself (as well as the summary in article seven), which, according to my interpretation, is on the decomposition side of question three. If the Standard Model were the correct reading of Aquinas, then Aquinas would not have to ask both whether there are any accidents in God and whether God is a part of any composite. The former would be a species of the latter.

Now, none of this is a knockdown argument against the Standard Model. Aquinas could be moving from discussing a way in which God might be said to be a part of some further composite in article six, to discussing the ways in which God might be said to have parts in article seven, and then back to discussing other ways in which God might be said to be a part of some further composite in article eight. But a virtue of the Expanded Model is that it supports a much more natural reading of Aquinas's argument in question three, according to which articles one through seven are all about the sorts of parts that God might be said to have, and only article eight shifts to a discussion of the things of which God might be said to be a part.[48]

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[47] In the *Sed contra* of Article 2, he refers back to Article 1; In the *Corpus* of Article 4, he refers back to Articles 1 and 3; In Article 6, he refers back to Articles 2 and 3; and in Article 7, he refers to "the previous articles."

[48] In addition to his treatment of divine simplicity in the *Prima pars*, Aquinas also argues for the absolute simplicity of God in three other places: Aquinas, *SCG*, I, Ch. 18-27, Aquinas, *QDPD*, Q. 7, A. 1-4, and Aquinas, *CT*, B. I, Chs. 9-24. In each of these texts, the order in which Aquinas argues for his conclusions is slightly different. In the *SCG*, *QDPD* and *CT*, for instance, Aquinas argues first that there is no composition of any sort in God, and then he goes on to argue that God must therefore be said to lack all of the various sorts of parts that other things have. And the order in which Aquinas considers the different sorts of parts that God might be said to have varies. In all four of these texts Aquinas concludes that there is no composition of subject and accident in God, but only in the *ST* (A. 8) and the *SCG* (Chs. 26-27) does Aquinas also conclude that God is no part of any other thing. Nevertheless, in the

6. The Case for Expansion II: Essence and Suppositum

A second reason to think that, for Aquinas, accidents or accidental forms are to be included among the metaphysical parts of material substances is the way in which he distinguishes between the nature or essence of a material substance and the material substance itself, the *suppositum*, throughout his corpus. According to Aquinas, the essence or nature of a thing is that which makes the thing the kind of thing that it is. For any two members of the same kind or species, then, there is a sense in which those two members can be said to possess the same essence or nature.[49] In the case of material substances, essences or natures are composite: the essence or nature of a material substance includes both its form and its matter. The form that is included in the essence of a material substance is the substantial form that is characteristic of its kind. In the case of human beings, for example, the essence includes the substantial form that makes something a human being, which is a rational soul. Aquinas calls the matter that is included in the essence of a material substance its "common matter."[50] Common matter is the kind of matter that something must possess in order to be the kind of thing that it is. According to Aquinas, the common matter of human beings is flesh and bones; every human being is composed of this same kind of stuff. Because the essence or nature of a thing is that which makes the thing the kind of thing that it is, there is a sense in which every material substance of a particular kind or species has the same substantial form and the same common matter. It is,

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SCG, as in the *ST*, that God is no part of any other thing is a conclusion reached after he has finished his discussion of the sorts of parts that God must be said to lack. In the *Sed contra* of article four of question seven of the *QDPD* (a *Sed contra* to which Aquinas does not offer a reply), there is also an interesting passage that reads: "Every accident depends on something else. There can be no such thing in God, because that which depends on something else, is caused to exist. And God is the first cause and is in no way caused. Therefore, in God there can be no accident." Note here that the concern is that, since every accident is dependent on something else, placing an accident in God would make God dependent on something else. Why would placing an accident in God make Him dependent on something else? I would like to suggest that what Aquinas has in mind here is that placing an accident in God would make God dependent on something else because God would thereby depend on something else for the existence of one of His parts. I think that this passage should be read, then, as supporting the Expanded Model.

[49] See, for example, Aquinas, *DEE*, Ch. 1; Aquinas, *ST*, I, Q. 3, A. 3, Co.

[50] See, for example, Aquinas, *DEE*, Ch. 2 and Ch. 6; Aquinas, *ST*, I, Q. 29, A. 2, Ad. 3; Aquinas, *QDPD*, Q. 9, A. 1, Ad. 6.

however, important to understand what this sameness amounts to. Two human beings do not possess numerically the same substantial form and numerically the same common matter. Rather, they possess numerically distinct substantial forms and numerically distinct common matters, which are nevertheless qualitatively identical. The sense in which both the common matter and the substantial form of which the essence of a material substance is composed are "the same," then, is that they are intrinsically indistinguishable. They are numerically distinct from one another only by virtue of one or more extrinsic individuating principles.[51]

What, then, is the relationship between an individual material substance, or *suppositum,* and its essence or nature? Here I think that a proponent of the Standard Model has two options. First, he or she could identify an individual material substance with its individuated essence or nature. In such case, "common" matter would be understood as nothing more than prime matter specified to a certain extent by the substantial form that inheres in it, and an individual material substance would be nothing more than a particular instance of the common matter and substantial form that place it in its kind. Now, as was mentioned above, an individual essence or nature is an individual as a result of certain extrinsic individuating principles. And so according to this first way of understanding the relationship between individual material substances and their natures, individual material substances would not include among their metaphysical parts those principles that individuate them from others in their kind. The difference between an essence or nature and an individual material substance would *not* be a mereological one; an individual material substance would not have any additional metaphysical parts outside of its extrinsically individuated essence.[52] Alternatively, a proponent of the Standard Model could

[51] My interpretation of Aquinas on this point is indebted to Jeffrey Brower's analysis of common natures in his "Aquinas on the Problem of Universals," *Philosophy and Phenomological Research*, Vol. 90, No. 3 (2015): 1-21. See also, Brower, "Matter, Form, and Individuation," 94-100.
[52] This seems to be the strategy pursued by Brower in his *Aquinas's Ontology*, 112.

maintain a distinction between an individual material substance and its nature or essence by including the individuating principles that make that nature or essence an individual nature or essence among the metaphysical parts of the individual substance. In such case, common "matter" would be understood as nothing more than certain general specifications for an individual material substance's matter that are built into its substantial form, and the prime matter of an individual substance would serve as the individuating principle that individuates the individual substance's nature or essence from others of its kind.[53] The key thing to note here is that, on either option, an individual material substance would still be nothing more than its prime matter and its substantial form.

Importantly, both of these options for understanding the relationship between an individual material substance and its essence or nature on the Standard Model appear to be in conflict with what Aquinas himself says on this issue. When Aquinas himself describes the difference between the nature or essence of an individual material substance and the individual material substance itself he clearly and consistently describes that difference in mereological terms. Early on in his *De ente et essentia*, for example, Aquinas makes a distinction that will carry on through the rest of his works between two sorts of matter found in a material substance: undesignated and designated.[54] Undesignated or common matter is, as we have seen, included in the essence of an individual material substance. Common matter is the matter which, together with a thing's substantial form, places that thing in its kind. This matter is common in that it does not include any of the designations that make the matter of one member of a substantial kind distinct from the matter of other members of that kind. Designated matter, on the other hand, falls outside of a thing's essence and so does not place a thing in its kind. Designated matter

[53] This seems to be the strategy pursued by Brower in his "Matter, Form, and Individuation," 96 and in his "Aquinas on the Problem of Universals," 16.
[54] Aquinas, *DEE*, Ch. 2.

does, however, include the designations that make a thing the particular thing that it is, distinct from other members of its kind. What is most pertinent about this distinction for the present discussion is the way in which Aquinas characterizes the relationship between individual material substances, their common matter, and their designated matter. According to Aquinas, common matter, together with substantial form, comprises the essence of a thing. And the relationship between this composite essence and any individual substance that possesses it is one of part to whole. An individual material substance includes among its parts a composite essence and designated matter.[55] Now, what is it, precisely, that designates matter? Aquinas is clear that prime matter includes no designations whatsoever, since it is nothing else but pure potency.[56] Elsewhere we learn that prime matter becomes designated by certain dimensions, which as Aquinas explains, are accidents falling under the category of quantity.[57] It seems, then, that for Aquinas, an individual material substance does include among its metaphysical parts at least some of its accidents. It must include at least the quantities that designate its matter. Neither the first nor the second option for understanding the relationship between individual substances and nature or essences outlined above reflect this feature of Aquinas's account.

That individual material substances or *supposita* include among their metaphysical parts the accidental forms or quantities that designate their matter and thus individuate them from other members of the same kind is a claim found in several of Aquinas's works. Importantly, in many of these works, Aquinas also expands the list of accidental forms to be numbered among the metaphysical parts of individual material substances to include more than just their particular spatial dimensions. For instance, when comparing the complexity of human beings to the

[55] See Aquinas, *DEE*, Ch. 2, as well as the passages cited in my discussion of this point below.
[56] For descriptions of prime matter as "pure potency," see, for example: Aquinas, *SCG*, I, Ch. 17, N. 7; Aquinas, *ST*, I, Q. 115, A. 1, Ad. 2.
[57] The clearest explication of this point is in Aquinas's commentary on Boethius's *De Trinitate* (Aquinas, *In BT*, Q. 4, A. 2 and A. 4), but he also makes note of this fact in his *DEE*, Ch. 2.

simplicity of God in article three of question three of the *Prima pars*, (considered above), Aquinas explains that

> in things composed of matter and form, the *suppositum* and its nature or essence must be distinguished, since the essence or nature includes in itself only that which falls under the definition of the species, just as humanity includes in itself that which falls under the definition of human being. For this human being is a human being, and this refers to his humanity, namely, that by which the human being is a human being. But the individual matter, with all of the individuating accidents, does not fall under the definition of the species, for this flesh and these bones, or this whiteness, or this blackness, or other things of this sort do not fall under the definition of a human being. Hence this flesh and these bones and the accidents individuating this matter are not included in humanity. Nevertheless, they are included in that which is a human being. Hence, that which is a human being possesses in itself something that humanity does not. And for this reason a human being and his humanity are not totally the same, but humanity refers to a formal part of the human being, since the defining principles are possessed formally with respect to the individuating matter.[58]

In this passage, Aquinas tells us that the relationship between the essence of a thing and the thing itself, the *suppositum*, is a mereological one: the essence of a thing is one of its parts. What other parts does an individual material substance have beyond its essence? Aquinas says here that the other parts of an individual substance include its "individuating accidents," which accords well with what he says in the *De ente* about designated matter. But he also says here that the other parts of an individual substance beyond its essence include various other non-essential attributes, such as its color and "other things of this sort." This passage, then, would seem to support the claim, espoused by proponents of the Expanded Model, that an individual substance includes among its metaphysical parts not only the accidents that help to individuate from others of the same kind, but also its various qualities and "other things of this sort," that is, its other accidental forms. (This passage also lends further support to my interpretation of question three of the *prima pars* outlined above).

[58] Aquinas, *ST,* I, Q. 3, A. 3, Co.

And this is not an isolated remark. In his *Commentary on Aristotle's* Metaphysics, Aquinas makes the very same point:

> Humanity is not altogether the same as a human being, since humanity signifies only the essential principles of a human being and excludes all of the accidents. For humanity is that by which a human being is a human being, and so includes none of the things that are accidental to a human being. Hence, all of the accidents possessed by a human being are excluded from the definition of humanity. Now, it is this particular human being himself that is a human being, that possesses the essential principles, and is that to which accidents can inhere. And so, even though the definition of a human being does not include any of the accidents that a human being possesses, nevertheless 'human being' does not refer to something separate from those accidents. And therefore 'human being' refers to the whole, and 'humanity' refers to a part.[59]

Here again we have the claim that a human being, an individual material substance, includes among its metaphysical parts more than its essence. Here Aquinas explains that 'humanity' is only one part of the larger whole that is an individual human being. What else does this larger whole include? While Aquinas does not explicitly say that the individual material substance that is a human being includes the accidents that it possesses among its parts, he does say that a human being's humanity (her essence or nature) is only one part of her, and that the term 'human being' does not refer to something separate from those accidents. It is not very much of a leap, then, to suggest that in this passage Aquinas means for these accidents to be included among the additional parts to which he is referring. What is most interesting about this particular passage is that it describes accidents as both inhering in a material substance and as being included in the whole that is that material substance. This would seem to count against the Standard Model's claim that accidents must inhere in material substances "from the outside," as it were.

Finally, that Aquinas holds that there is a mereological difference between the nature or essence of a thing and the *suppositum* is perhaps most clearly illustrated in his account of the incarnation. So, for instance, in his treatment of the incarnation in the *Tertia pars*, he states

[59] Aquinas, *In Met*., B. 7, L. 5, 1379.

> 'Nature' refers to the essence of the species, which the definition signifies. And if nothing else were found joined to that which pertains to the notion of the species, then it would not be necessary to distinguish the nature from the *suppositum* of the nature, which is the individual subsisting in that nature, since, in this case, every individual subsisting in some nature would be altogether identical to its nature. Now, in certain subsisting things something can in fact be found which does not pertain to the notion of the species, namely accidents and the individuating principles, as is most clear in those things that are composed of matter and form. And therefore, in such cases the nature and the *suppositum* are different things, not as if they were altogether separate from one another, but since the *suppositum* includes the nature of the species and certain other things over and above the notion of the species, '*suppositum*' refers to the whole, which possesses the nature as a formal part and is perfective of it.[60]

Once again, in this passage, Aquinas explains that the essence or nature of a material substance does not exhaust its metaphysical composition. He explains here that any individual material substance will also include among its metaphysical parts its "individuating principles," which, as we have seen, are accidental forms in the category of quantity, and its accidents. As in the two previous passages, Aquinas places no restriction here on the sorts of accidents that he wishes to include. The most straightforward way of reading these sorts of passages, then, I submit, is to see them as outlining a view according to which all accidental forms are metaphysical parts of material substances. And the fact that these sorts of passages can be found in several of Aquinas's works, spanning several stages of his career, is, I think, rather strong evidence that, for Aquinas, a *suppositum*, an individual material substance, is not exhaustively composed of its matter (either prime or common) and its substantial form, as it is on the Standard Model. Rather, for Aquinas, a *suppositum* includes its accidental forms as further metaphysical parts.[61]

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[60] Aquinas, *ST*, III, Q. 2, A. 2, Co. For other passages in Aquinas's corpus that make similar points, see, for example: Aquinas, *QDPD*, Q. 9, A. 1, Co.; Aquinas, *QDPD*, Q. 7, A. 4, Co.; Aquinas, *QDUVI*, A. 1, Co.; Aquinas, *QDUVI,* A. 3, Co.; Aquinas, *QDUVI*, A. 3, Ad. 14; Aquinas, *QQ*, II, Q. 2, A. 2, Co.; Aquinas, *QQ*, II, Q. 2, A. 2, Ad. S.C.; Aquinas, *CT*, B. 1, Ch. 10; Aquinas, *CT*, B. 1, Ch. 154; Aquinas, *In DA*, B. 3, L. 8, 706; Aquinas, *DEE*, Ch. 2; Aquinas, *In Met*., B. 7, L. 11, 1521-1522; Aquinas, *In Met*., B. 7, L. 12, 1535-1536; Aquinas, *In Met*., B. 8, L. 3, 1710; Aquinas, *QDA*, Q. 1, A. 17, Ad. 10; Aquinas, *SCG*, I, Ch. 21, N. 2; Aquinas, *SCG*, IV, Ch. 81, N. 10; Aquinas, *In Sent*., B. 1, D. 23, Q. 1, A. 1. For more on Aquinas's distinction between individual substances or *supposita* and essences or natures, see Wippel, *Metaphysical Thought*, 238-253.

[61] While I have focused in this paper on Aquinas's account of material substances, there are similar passages in Aquinas's texts that suggest that angels, too, have their accidental forms as further metaphysical parts, and for

7. Further Expansion I: 'Substance' is Said in Many Ways

As I said at the start of this essay, the Standard Model of Aquinas's ontology of material substances is the *Standard* Model for a reason. It is not difficult to find passages that seem to support such a reading. This prompts what is perhaps the most obvious, most immediate objection to the Expanded Model: if the Expanded Model is indeed the correct interpretation of Aquinas, and accidental forms are indeed parts of individual material substances in Aquinas's ontology, then why does Aquinas almost never include the accidental forms of a material substance in the list of its metaphysical parts? And why does he regularly refer to the composite of substantial form and prime matter as substance, or the composite of a particular kind of substantial form and prime matter by the name of a particular substance?

I think that this is a legitimate concern for the Expanded Model. But I also think that there are at least two strategies available to a proponent of this model for contending with these sorts of passages. In general, I think that a proponent of the Expanded Model has to interpret those passages in which Aquinas refers to the composite of a particular kind of substantial form and prime matter by the name of a particular substance as a sort of shorthand. When Aquinas speaks of a human being, for example, as composed of substantial form and prime matter, a proponent of the Expanded Model has to interpret Aquinas as referring only to the essential parts of a human being, setting aside the various accidental parts that she also possesses. Indeed, if what I have argued in the previous section is correct, we must read him this way. For Aquinas clearly thinks that the matter of which a human being is composed is designated matter, matter with some particular dimensions, and these dimensions, as we have seen, are accidents in the

similar reasons (see, for example: Aquinas, *ST*, I, Q. 77, A. 1, Ad. 5; Aquinas, *QQ*, II, Q. 2, A. 2, Co.). For discussion of this point, see Christopher Hughes, "Aquinas on Continuity and Identity," *Medieval Philosophy and Theology*, Vol. 6 (Mar., 1997): 96-97; Hughes, *Aquinas on Being Goodness and God*, 68-74, 138-141 and Wippel, *Metaphysical Thought*, 244-245, 246, and 247.

category of quantity. It cannot be the case, then, that a human being, or any individual material substance, is composed of only its prime matter and substantial form. There must be more to it than that.

Concerning those passages in which Aquinas refers to the composite of substantial form and prime matter as substance, a proponent of the Expanded Model has a second sort of response that he or she can offer. Following Aristotle's remarks in Book V, Chapter 10 of his *Metaphysics*, Aquinas often distinguishes at least three ways of speaking of substances.[62] First, we can speak of substantial forms as substances inasmuch as substantial forms are the "cause of being" for the others. Let us refer to this category of substance as substance$_1$. Second, we can speak of essences, natures, or quiddities as substances, inasmuch as they are signified by the definitions of things. Let us refer to this category of substance as substance$_2$. Finally, we can speak of individual substances (elements, minerals, plants, animals, human beings, angels, etc.) as substances, inasmuch as they are the ultimate subjects of predication. Let us refer to this category of substance as substance$_3$.

This threefold distinction between ways of speaking of substance runs throughout Aquinas's works, though occasionally Aquinas mentions only the second and third. For instance, in his discussion of the Trinity in the *Prima pars*, Aquinas writes,

> Following what the Philosopher says in Book V of the Metaphysics, 'substance' is spoken of in two ways. In one way substance is spoken of as the quiddity of a thing, which the definition signifies. In this way we say that the definition signifies the substance of a thing, which the Greeks called *ousia*, and which we may speak of as the 'essence' of a thing. In another way, substance is spoken of as the subject or '*suppositum*', that which subsists in the genus of substance.[63]

[62] Aquinas, *In Met*., B. 5, L. 10, 898-905. For more on this threefold distinction in Aquinas, see Wippel, *Metaphysical Thought*, 198-208.
[63] Aquinas, *ST*, I, Q. 29, A. 2, Co.

This general distinction is also reiterated in his treatment of the incarnation in the *Tertia pars*: "Substance, as is clear from Book V of the *Metaphysics*, is spoken of in two ways: in one way as the essence or nature of a thing; in another way as the *suppositum* or hypostasis."[64] The significance of this distinction for my purposes becomes clear when we consider once again the fact that, according to Aquinas, the essence or nature of a material substance includes both the matter and the substantial form of that substance. As Aquinas explains in his *De ente et essentia*,

> From the conjunction of both [substantial form and matter] there results that being in which a thing subsists in itself, and from them something essentially one is produced. And, therefore, from their conjunction a certain essence results. Hence, the form, though in itself it is not considered to have the complete notion of an essence, nevertheless, is part of a complete essence... [On the other hand,] from accident and subject something essentially one is not produced, but something accidentally one. And therefore from their conjunction a certain essence does not result, as it does from the conjunction of form and matter. As a result, an accident has neither the notion of a complete essence, nor is part of a complete essence.[65]

And so, keeping this understanding of natures or essences in mind, when Aquinas refers to the composite of matter and substantial form as substance, we need not infer from these remarks that he holds that a material substance has substantial form and prime matter as its only metaphysical parts. That would be to collapse the distinction between substance$_3$ and substance$_2$. What he means when he refers to the composite of matter and substantial form as substance is that matter and substantial form comprise the essence, nature or quiddity of an individual material substance, which we can call a substance, as long as we keep in mind that by doing so we are calling it a substance$_2$, not a substance$_3$, which is the individual material substance or *suppositum* of which it is a part.

Admittedly, these two strategies for contending with those passages in Aquinas's texts that are difficult to reconcile with the Expanded Model do not decisively resolve this issue. Nor

[64] Aquinas, *ST*, III, Q. 2, A. 6, Ad. 3
[65] Aquinas, *DEE*, Ch. 5.

do these two strategies address all of the passages that can be seen to support the Standard Model.[66] I think that these strategies do, however, take a bit of the sting out of the more commonly cited passages. They also provide proponents of the Expanded Model with a way of trying to reconcile these passages with that Aquinas himself says about the composition of material substances in the context of his discussions of Divine simplicity and the real distinction between the essence or nature of individual material substance and the individual material substance itself.

8. Further Expansion II: Making Room for Accidental Unities

Proponents of the Expanded Model typically do not speak of accidental unities when describing Aquinas's ontology of material substances. Perhaps this is because they do not think that Aquinas actually does recognize the existence of such things, or at least that he does not take them to be additional entities in his ontology beyond the material substances with which they are associated. Perhaps proponents of the Expanded Model would rather think of accidental unities as "beings of reason," found only in the mind. Perhaps "white-Socrates" is just a helpful abstraction, something that we consider when we abstract away several of Socrates' metaphysical parts in order to concentrate on some important subset of those parts for purposes of explanation in a particular context. And there may be good reasons, interpretive or otherwise, for espousing such a deflationary reading of Aquinas's references to accidental unities.[67] It should be noted, however, that a proponent of the Expanded Model could recognize the real, extra-mental existence of accidental unities without compromising any of the main committments of his or her view. And since, as was shown in sections 3 and 4 above, there are

[66] The two passages cited at the start of this essay in support of the Standard Model are particularly difficult to deal with, since here Aquinas not only lists matter and form as components of a material substance, he also seems to explicitly deny that there are any other further components.

[67] Some of these are discussed in Lindsay Cleveland, *Groundwork for a Thomistic Account of Contemporary Property Roles*, Doctoral Dissertation, Baylor University (2018): Ch. 6. Cleveland, a proponent of the Expanded Model, favors this approach to accidental unities.

several key passages in which both Aristotle and Aquinas speak of accidental unities, it might be beneficial for a proponent of the Expanded Model to do so.

On the Expanded Model, material substances include among their metaphysical parts their prime matter, their substantial form, and all of their accidental forms. If we hold fixed the claim made by proponents of the Standard Model above that accidental unities include among their metaphysical parts prime matter, substantial form, and a single accidental form, then a proponent of the Expanded Model can recognize the existence of accidental unities. Importantly, however, these entities would be found within the larger composite that is the individual substance. For example, on the Expanded Model, white-Socrates may be understood as a hylomorphic compound that includes Socrates' prime matter, Socrates' substantial form, and Socrates' pallor, but which excludes all of Socrates' other accidents. And seated-Socrates may be understood as a hylomorphic compound that includes Socrates' prime matter, Socrates' substantial form, and Socrates' seatedness, but which excludes all of Socrates' other accidents. In this way, on the Expanded Model, accidental unities would turn out to be parts of material substances, not the other way around. Each accidental unity within a particular material substance would include some particular subset of that substance's metaphysical parts, and each would also overlap with every other inasmuch as each would include among its own parts the same prime matter and substantial form.

If proponents of the Expanded Model were to understand accidental unities in this way, then they would also be able to capture everything that proponents of the Standard Model want to say about accidental change. Recall that on the Standard Model's understanding of accidental change, when a material substance undergoes accidental change, say when it gains an accidental form, there are no new substances that are generated, but there is something that is generated. On

the Standard Model, there is an accidental unity that is generated when a material substance gains an accidental form. And, conversely, when the material substance loses that accidental form, that same accidental unity is corrupted. The Standard Model's account of accidental change preserves the idea that in every change, some hylomorphic compound is generated or corrupted. In substantial change, material substances are generated or corrupted; in accidental change, accidental unities are generated or corrupted.

Now, with the account of accidental unities introduced earlier in this section, the Expanded Model can also accommodate the claim that there is something generated or corrupted in every real change. And, in particular, it can also accommodate the claim that material substances are generated or corrupted in substantial change and accidental unities are generated or corrupted in accidental change. Recall that, on the Expanded Model of accidental unities outlined above, accidental unities are understood as parts of material substances and not the other way around. An accidental unity is a hylomorphic compound comprised of a material substance's prime matter, its substantial form, and one of its accidental forms. On an Expanded Model of accidental change, then, when a material substance gains an accidental form, there is something generated: the accidental unity consisting of the three parts just mentioned. And when the material substance loses an accidental form, the accidental unity that possesses that accident as its principal metaphysical part is corrupted. Naturally, the material substance itself continues to exist in such changes, since the material substance does not lose its prime matter, its substantial form, or its other accidental forms. It simply loses a non-essential part. Like a cat losing a tuft of fur (or worse, a limb), the material substance carries on through the loss of one of its non-essential parts by virtue of its continued possession of what is essential to it.[68] Nevertheless,

[68] As Aquinas himself explains at *ST*, III, Q. 2, A. 3, Ad 1: "A difference in accidents makes a thing 'other'; a difference of essence makes 'another thing'. Now, it is clear that, in created things, the otherness that results from a difference in accidents can pertain to the same hypostasis or suppositum. In such cases, numerically the same thing

a proponent of the Expanded Model can admit that some hylomorphic compound (found "within" the material substance) has ceased to exist. And in this way, the Expanded Model can preserve the Standard Model's basic account of accidental change without having to surrender its claim that accidental forms are to be understood as metaphysical parts of individual material substances in Aquinas's ontology. Now, whether proponents of the Expanded Model need to recognize the existence of accidental unities in the first place will depend on how seriously we want to take Aquinas's references to such entities. But, as I have shown, a proponent of the Expanded Model is free to espouse even a strongly realist interpretation.

9. Further Expansion III: Unity, Identity, and Persistence

In section 4, I considered an argument in favor of the Standard Model, according to which including accidental forms within the hylomorphic constitution of material substances would so diminish their internal unity that they themselves would become no more unified than mere accidental unities. As we have seen, according to Aquinas, no union of two actual forms produces a simple or absolute unity (*unum simpliciter*). The greatest degree of unity that any entity possessing two actual forms can achieve, then, appears to be mere accidental unity (*unum per accidens*). Earlier it was also discovered that, on the Expanded Model, individual material substances appear to have the very same mereological structure as one of the three major kinds of accidental unity recognized by Aquinas, which we called multi-accident accidental unities. The Expanded Model, then, would seem to significantly diminish the robust, substantial unity that Aquinas himself clearly and consistently attributes to material substances throughout his works, with the result that, on this model, material substances turn out to be nothing more than complex accidental unities. In the previous section, I offered one way in which a proponent of

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can underlie different accidents. However, in created things, it is not the case that numerically the same thing can subsist in different essences or natures. Hence, that, in creatures, one thing is said to be 'other' does not signify a difference in suppositum, but only a difference in accidental forms."

the Expanded Model can distinguish between individual material substances and accidental unities, but several key questions remain: what sort of unity does an individual material substance possess on the Expanded Model, and how is an individual material substance to be distinguished from the multi-accident accidental unity that shares its parts? In this final section of the paper I respond on behalf of proponents of the Expanded Model to both of these concerns.

The first claim that I would like to defend is that, on the Expanded Model, individual material substances remain simply or absolutely one, and do not become merely accidentally one. The key to understanding how a composite entity can be considered a simple or absolute unity while still possessing two or more actual things among its constituents is to understand that something can be both simply or absolutely one and also accidentally many. Let us begin with the following passage from Aquinas's *Summa theologiae*:

> nothing prevents something from being in one way divided and in another way undivided, just as that which is divided by number is undivided according to species, and thus it may turn out that something is one in one way and many in another. But, nevertheless, if something is undivided simply, either because it is undivided according to that which pertains to its essence (though it may be divided with respect to those things that are outside of its essence, like something which is one in subject and many according to its accidents) or because it is undivided in act and divided in potency (like something which is one as a whole and many according to its parts), in such case it will be simply or absolutely one [*unum simpliciter*] and accidentally many [*multa secundum quid*]. On the other hand, if something is undivided accidentally and divided simply, inasmuchas it is divided according to its essence, and undivided accidentally, or according to its principle or cause, it will be simply or absolutely many and accidentally one, like those things that are many in number and one in species or in principle. Hence, being is divided with respect to one and many in this way, as it were, by means of simply or absolutely one and accidentally many.[69]

In this passage, Aquinas explains that something can be one or undivided in one way and many or divided in another way. Here Aquinas describes two ways in which this can occur. First, something can be simply or absolutely one while also having many parts. One example he gives

[69] Aquinas, *ST*, I, Q. 11, A. 1, Ad. 2.

of this is the unity exhibited by the various material parts of a material substance. As we have seen, for Aquinas, a material substance is simply or absolutely one in that it possesses no substantial parts, but it is also virtually or potentially many, in that many of its material parts are such that they could, if separated from the whole, become substances in their own right. What is especially pertitent for my purposes is the other example that Aquinas gives of something that is simply or absolutely one while also having many parts. Here Aquinas says that something counts as simply or absolutely one as long as there is a simple or absolute unity within its essence, that is, as long as what makes that thing what it is essentially is a simple or absolute unity. Importantly, this is so even if that thing possesses further accidental parts outside of its essence. In such case, the individual in question will be simply or absolutely one by virtue of the union of its essential parts and accidentally many by virtue of the plurality of its various accidental parts.

The second way described in this passage in which something can be one or undivided in one way and many or divided in another is that something can be simply or absolutely many while also exhibiting sufficient unity to count as one thing in a certain respect. Aquinas does not give us a clear example of this sort of case in this particular passage, but he does in similar passages elsewhere. In question 17, article 4 of the *Prima-secundae*, for example, Aquinas says that

> nothing prevents certain things from being many in one respect and one in another. Indeed every plurality is one in some respect...Nevertheless, a difference is to be noted here: that certain things are simply many and one in a certain respect and certain other things are the reverse. Now, 'one' is predicated in the same way as 'being'. And a substance is a being absolutely, but an accident or a being of reason is a being only in a certain respect. And therefore those things that are one in substance are simply or absolutely one and many in a certain respect, just as a whole in the genus of substance composed of its integral or essential parts is simply or absolutely one [*unum simpliciter*], for the whole is a being and a substance simply whereas the parts are beings and substances in the whole. On the other hand, those things that are distinct with respect to their substance and one by means of an accident are simply or absolutely many and one accidentally, or one

> in a certain respect [*unum secundum quid*], just as many human beings are one people and many stones are one heap, which is a unity of composition or order. Similarly, many individuals, which are one in genus or species are simply or absolutely many and one in a certain respect, since to be one in genus or species is to be one according to nature [*ratio*].[70]

Here again we see Aquinas's distinction between being simply or absolutely one and accidentally many (one in a certain respect) and being simply or absolutely many and accidentally one. And once again one of the examples that Aquinas gives of something that is simply or absolutely one and accidentally many is an individual material substance. An individual material substance is simply or absolutely one in that it is one substance, but it is also many in that it possesses various parts (integral, essential, and accidental). In this passage, Aquinas also gives us a helpful example of something that is simply or absolutely many and accidentally one. Here Aquinas says that a single group of people is unified in this way, as are many stones in one heap: each is simply or absolutely many in that it includes among its constituents two or more material substances, and each is accidentally one in that those material substances are joined or united by a single accidental form. What we are given, in this passage, then, is a distinction between the kind of unity exhibited by individual material substances and the kind of unity exhibited by accidental unities, one that does not rely on a distinction between possessing accidental forms as parts and not possessing accidental forms as parts. What makes the unity of an individual material substance different from the unity of an accidental unity is not that an accidental unity includes among its metaphysical parts an accidental form and an individual material substance does not. Rather, it is that an accidental unity has as the source of its being, and as the source of its unity, the union of some accidental form with one or more subjects, whereas an individual

[70] Aquinas, *ST*, I-II, Q. 17, A. 4, Co. A similar passage can also be found in Aquinas, *In DN*., Ch. 11, L. 2, in which Aquinas says that a human being, qua material substance, is in itself one [*in seipso unum*], but is within itself many [*intra seipsum non unum*].

material substance has as the source of its being, and as the source of its unity, the union of its essential parts, its substantial form and prime matter.

That Aquinas recognizes the possibility of something being simply or absolutely one despite including among its metaphysical parts several actual forms is perhaps most clearly illustrated in his account of the incarnation. In article 3 of his *Disputed Questions on the Union of the Word Incarnate*, for example, Aquinas explains

> Although both 'one' and 'many' can refer to the *suppositum* and to the nature, it is clear that if some single *suppositum* were to have many substantial natures it would be simply or absolutely one [*unum simpliciter*] and many in a certain respect [*multa secundum quid*]. A sign of this is that those things which are distinct with respect to *suppositum* and are one with respect to that which pertains to the nature in itself are simply or absolutely many but one in genus or species. And, therefore, conversely, if one *suppositum* were to have many natures it would be simply or absolutely one and many in a certain respect. Since, therefore, Christ is one *suppositum* having two natures, it follows that He is simply or absolutely one and two in a certain respect.[71]

What we see here is that the incarnate Christ is a case in which Aquinas clearly thought that something can include among its metaphysical parts two actual forms or things and still be considered an absolute or simple unity. Here the incarnate Christ includes within his *suppositum* two actual natures, one human and one divine. Christ is many in that he possesses these two actual natures, and yet He is also simply or absolutely one by virtue of those two natures being found within the same suppositum and by virtue of the absolute simplicity of the divine essence. And this is not meant to be an isolated case. Aquinas himself anticipates the implications of this account of the incarnation for understanding individual material substances. Earlier in the same article, for example, Aquinas says

> that which has unity is said denominatively to be one, just as that which has whiteness, or that which is the subject of whiteness is said to be white. And for the same reason, that which has plurality is said denominatively to be many and that which has duality is said denominatively to be two. Now, since one is

[71] Aquinas, *QDUVI*, A. 3, Co.

> convertible with being, just as there is accidental being and substantial being, something is said to be either one or many according to an accidental form or according to a substantial form. Indeed, with respect to accidental forms something is said to be many which is the subject of different forms, either successively or simultaneously. Successively, as, for example, Socrates sitting is different from Socrates standing; for that reason Socrates, inasmuch as he is first standing and then sitting is many successively. Simultaneously, as, for example, Socrates inasmuch as he is white and musical is many.[72]

In the same article, Aquinas goes on to explain that

> Socrates, insofar as he is white and musical, is many, not simply or absolutely, but in a certain respect. For, with respect to an accident something is said to be, not simply, but in a certain respect. But with respect to substance something is said to be, as a being, simply or absolutely one or simply or absolutely many.[73]

Altogether what I think that these texts reveal is that, for Aquinas, whether something possesses simple or absolute unity or accidental unity is not simply a matter of whether something includes among its metaphysical parts one or more actual forms. The real issue is whether something has as the source of its unity, the source of its identity, the union of two or more actual forms or whether it has as the source of its unity and identity something that is itself simply or absolutely one. An accidental unity is accidentally one because it has as the source of its unity, the source of its identity, the union of one or more accidental forms with one or more subjects. The incarnate Christ is simply or absolutely one despite the fact that He includes among His metaphysical parts two actual natures because He has as the source of His unity and identity the absolutely undivided divine essence. And an individual material substance is simply or absolutely one despite the fact that it includes among its metaphysical parts various accidental forms because it has as the source of its unity and identity the union of its substantial form and prime matter. Including accidental forms within the hylomorphic constitution of material

[72] *Ibid.*
[73] *Ibid.*

substances, then, does not prevent them from possessing the robust, substantial unity that Aquinas attributes to them.

Based on my interpretation of the passages above, then, I think that a proponent of the Expanded Model should give the following account of the distinction between accidental unities and individual material substances. An accidental unity is produced, and is made one thing, by the union of an accidental form and its subject. For material substances, that subject includes prime matter and substantial form. And so any particular accidental unity is produced, and is made one thing, by the union of two actual things: a subject that includes prime matter and substantial form and an accidental form. White-Socrates, for example is produced, and is made one thing, by Socrates' prime matter and substantial form and the accidental form of whiteness that inheres in him. As a result, in order to describe what white-Socrates essentially is we need to make reference to two actual things, and for white-Socrates to continue to exist, he must maintain possession of both of these actual parts. If white-Socrates were to lose the accidental form of whiteness that inheres in Socrates, that is, if Socrates were to undergo an accidental change pertaining to the color of his skin, then white-Socrates would cease to exist necessarily. It is the coming together of two actual things, then, that makes white-Socrates what it essentially is and the continued union of these two actual things that makes it the case that it continues to be. In this way, the unity found in an accidental unity is, on the Expanded Model, both rigid and fragile. It is rigid in that the parts of an accidental unity are fixed. White-Socrates always and everywhere possesses the very same metaphysical parts. It is fragile in that any change in any of those parts would bring about the destruction of that unity. As Socrates undergoes various accidental changes over the course of his life, accidental unities are coming in and going out of existence at a remarkably rapid rate. There may be some accidental unities that remain for much

of Socrates' life, and there may even be some that remain for all of Socrates' life,[74] but there are many more that are only present for a fraction of Socrates' life. Accidental unity is a unity that is easily and frequently broken.

A material substance, on the other hand, is produced, and is made one thing, by the union of substantial form and prime matter. As we have seen, for Aquinas, prime matter is pure potentiality, completely lacking in any actuality of its own. And so a material substance is produced, and is made one thing, by the union of one actual thing and one potential thing. Socrates, for example, is produced, and is made one thing, by his rational soul and his prime matter. As a result, in order to describe what Socrates essentially is we need to make reference to both his form and his matter, but we do not need to make reference to any of his accidents. Any accidents that Socrates possesses, even if they are included among his metaphysical parts, are accidental, not essential, to what he is. They are in no way constitutive of his identity. Consequently, for Socrates to continue to exist, he must maintain possession of both of his essential parts, his form and his matter,[75] but he need not maintain possession of any particular accidental part. Socrates can and does gain and lose such parts over time without ceasing to exist and without changing what he essentially is. It is not the coming together of two actual things, then, that makes Socrates what he essentially is; it is still just the coming together of his rational soul and his prime matter. And it is not the continued union of any two actual things that makes it the case that he continues to be; he can survive the dissolution of any accidental unities found within him.[76] In this way, the unity found in a material substance is, on the Expanded Model, more flexible than the unity present in an accidental unity, but it is also more robust, capable of

[74] Presumably, those accidental unities that are composed of necessary accidents would be such.
[75] Setting aside the possibility of Socrates surviving into the afterlife without any kind of matter.
[76] Setting aside any accidental unities composed of necessary accidents.

surviving the ebb and flow of accidental change. Substantial unity is a unity far less easy to break.

But what about multi-accident accidental unities? How is an individual material substance to be distinguished from the multi-accident accidental unity that shares all of its parts? Let us consider, then, the possibility that Aquinas does mean to recognize the extra-mental existence of multi-accident accidental unities, and the possibility that in Aquinas's ontology there is indeed some multi-accident accidental unity that includes among its metaphysical parts the very same metaphysical parts that a material substance is said by a proponent of the Expanded Model to possess at any particular time. For example, let us say that there is some multi-accident accidental unity associated with Socrates that includes his prime matter, his rational soul, and all of the accidental forms that he possesses at that moment. Let us call such an accidental unity a comprehensive accidental unity. I would like to argue that even if there is such a comprehensive accidental unity in Aquinas's ontology, this accidental unity would still be importantly different from the sort of composite whole that the Expanded Model understands Socrates to be in at least two ways. First, unlike Socrates, this comprehensive accidental unity would depend for its identity on the accidental forms of which it is composed. The accidental unity would be what it essentially is because of the accidental forms that it possesses as metaphysical parts. Second, and as a result of the first, unlike Socrates, this comprehensive accidental unity would depend for its existence on the accidental forms of which it is composed. The existence of such an accidental unity would be so fragile that once it lost any of its accidental forms, or gained any new ones, that is, once Socrates changed any one of his accidental features, that accidental unity would cease to exist and would be replaced by some numerically distinct comprehensive accidental unity with slightly different parts. Socrates himself, on the other hand, the mereologically

flexible and robustly unified composite whole that includes Socrates' prime matter, Socrates' rational soul, and all of the accidental forms that Socrates happens to possess at that time, does not depend for his identity on any of the accidental forms of which he is composed; they are not what makes him what he essentially is, and so he is able to survive the addition and substraction of various accidental parts over the course of his existence. The sort of composite whole with which the Expanded Model identifies a material substance, then, is a very different kind of composite whole from an accidental unity. It is in at least two ways distinguishable even from the sort of comprehensive accidental unity that includes all of the material substance's accidental forms. It has its identity, its unity, and its existence from a different source. While the comprehensive accidental unity gets its identity, its unity, and its existence at least in part from its constituent accidents, Socrates gets his identity, his unity, and his existence from his essence, which includes his substantial form and prime matter but none of his accidents. And so, for this reason, I think that it is false to say that on the Expanded Model material substances turn out to be mere accidental unities. Material substances have unique identity and persistence conditions that set them apart from any accidental unities to which they may be related and with which they may share their parts.

In summary, then, on the Expanded Model, individual material substances are both simply or absolutely one and also accidentally many. An individual material substance is simply or absolutely one by virtue of the substantial form-prime matter compound that serves as the source of its unity, identity, and existence. And an individual material substance is accidentally many by virtue of the various accidental forms and accidental unities that are included within its hylomorphic constitution. As I have argued here, I think that, like the Standard Model, the Expanded Model preserves the robust, substantial unity that Aquinas attributes to material

substances, and I think that it also properly distinguishes the kind of unity exhibited by material substances from the kind of unity exhibited by the accidental unities with which they are associated. And for that reason, I do not think that Aquinas's account of accidental and absolute unity gives us any reason to think that the Standard Model more accurately reflects Aquinas's ontology of material substances.

10. Conclusion

There are, then, two main models for understanding Aquinas's ontology of material substances: the Standard Model, according to which accidental forms are *not* included among their metaphysical parts, and the Expanded Model, according to which they *are* included among their metaphysical parts. In this paper, I have attempted to illustrate the major differences between these two models and to outline the main arguments that can be offered in support of each. I have argued that despite a number of passages in Aquinas's texts that seem to support the Standard Model, and two big-picture reasons for attributing to him this sort of view, there are several other passages in Aquinas's texts that support the Expanded Model, and at least two other big-picture reasons for attributing to him this sort of view. I have also argued that a proponent of the Expanded Model can accommodate Aquinas's account of substantial and accidental change without having to surrender any of the main commitments of the view, and preserve the substantial unity of material substances without having them collapse into accidental unities. Based on these considerations, I think that there are good reasons to think that the Expanded Model better reflects Aquinas's views on material substances, and good reasons to think that, for Aquinas, accidental forms are indeed metaphysical parts of material substances.[77]

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[77] *[acknowledgements redacted for purposes of blind review]*

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