Hylomorphism
and Mereology
Hylomorphism and Mereology:

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Edited by
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INTRODUCTION

ALEX HALL

The Proceedings of the Society for Medieval Logic and Metaphysics (PSMLM) collects original materials presented at sessions sponsored by the Society for Medieval Logic and Metaphysics (SMLM). SMLM was founded in 2000 by Gyula Klima (Director), Joshua Hochschild, Jack Zupko and Jeffrey Brower, in order to recover the profound metaphysical insights of medieval thinkers for our own philosophical thought. The Society currently has over a hundred members on five continents. Alex Hall took up the position of Assistant Director and Secretary in 2011, with secretarial duties passing to Timothy Kearns in 2014. The Society’s maiden publication appeared online in 2001 and the decade that followed saw the release of eight more online volumes. In 2011, PSMLM transitioned to print and republished volumes 1-8 as separately titled editions. Sharp-eyed readers of these volumes will note the replacement of our (lamentably copyrighted for commercial use) lions, who guarded the integrity of the body of an intellectual tradition thought to be dead, with the phoenixes that mark this print rebirth. Volumes 9 and 10 appeared in a dual print/online format. With Volume 11, PSMLM switched to print only. Friends of the lions will be happy to note that they remain at their post, protecting the first ten volumes of the PSMLM at http://faculty.fordham.edu/klima/SMLM/, where interested readers can also keep up with SMLM activities and projects.

This fifteenth Volume of PSMLM collects papers on the themes of hylomorphism and mereology, presented at SMLM sponsored sessions at the 2015 meeting of the American Catholic Philosophical Association hosted by Boston College and the 2016 International Congress on Medieval Studies at Western Michigan University. Mereology is the metaphysical theory of parts and wholes, including their conditions of identity and persistence through change. Hylomorphism is the Aristotelian metaphysical doctrine according to which all natural substances, including living organisms, consist of matter and form as their essential parts, where
the substantial form of living organisms is identified as their soul. Volume 16 (forthcoming) will treat axiology and the virtues.

Citing recent interest in hylomorphism in debates over the unity of material objects, Andrew Arlig weighs the merits of scholastic accounts in his “Multiplex Composition and The Prospects for Substantial Unity.” Arlig raises what he terms ‘easy’ and ‘hard’ problems for medieval theories and concludes that these theories’ prospects are “dim.” The easy problem emerges from the idea that multiplex substances (e.g. a statue) are subject to various exhaustive, non-overlapping divisions, e.g. the left and right side of a statue, on the one hand, and its prime matter and substantial form, on the other. It may appear that such multiplex objects are in fact multiple wholes. In response, Arlig contends that there is a path forward to addressing the easy difficulty inasmuch as the existence of a substance that is subject to hylomorphic partitioning is the precondition for exhaustive divisions of the substance into, e.g. left and right sides. The hard problem, however, develops out of this supposed ontological priority. On the medieval account, the human soul seems to be a hylomorphic composite inasmuch as it is receptive of accidents. As the human soul, therefore, also stands in need of a unifying principle itself, it is ill-suited in this role, namely, as the unifying principle of a substance.

In “There is More Than One Way to Slice a Cake,” Gyula Klima identifies Arlig’s easy problem as problematic only inasmuch as the transitivity of identity seems to have broken down. Klima notes that medieval thinkers handle such cases by distinguishing substantial and accidental terms, akin to Saul Kripke’s rigid and non-rigid designators. Talk about something by means of accidental terms (as when we talk about halves of statues) picks out accidental forms, whereas talk about something by means of substantial terms, picks out substantial forms. The former designate non-rigidly, the latter rigidly. Using a mixture of both, Klima contends that it is easy to see that transitivity of identity does not have to break down. Rather, in such contexts, we are not identifying different totalities with one unit; we are simply identifying one and the same item differently, in terms of rigid and non-rigid designators. Again, Klima denies that its ability to receive accidental forms is a reason to conclude that the soul is subject to hylomorphic composition. Aquinas, for instance, would deny a literal reading to phrases such as ‘spiritual matter’ and draw on distinctions such as the soul’s having its act of being as a substantial form of the body and having it as that act whereby it is the subject of its accidents. Klima
concludes that the prospects of reviving scholastic hylomorphism are bright, provided we do this in its proper conceptual context.

Hylomorphism allows us to tell apart genuine substances, e.g. a human being, from mere conglomerates of spatially collocated bodies, e.g. Lego Batman. On this account, it might seem that every composite material object has just one substantial form that makes its integral parts parts of that unique thing, e.g. this heart is the heart of Socrates. At least Aquinas sees it this way. As a consequence, he adopts a unitarian theory. By way of contrast, pluralists such as Scotus point out that features of material objects persist after the corruption of their substantial forms. If the Rosemary shrub hadn’t been a conglomerate of substantial forms, why does the herb retain its scent?

Shane Wilkins and Thomas Ward discuss the relative merits of these stances as regards the unity or multiplicity of substantial forms. Wilkins’ “How Unicity Theorists Can Recover the Elements from Material Substances” contends that unitarians can account for the persistence of certain of a substance’s characteristics after the corruption of its substantial form inasmuch as the elements that make up the substance remain specifically, if not numerically, the same when the form of the substance is corrupted. In “Many Exits,” Ward maintains that unitarians are not entitled to the claim that elements can jump substances. Moreover, Scotus’s pluriform substances are essentially ordered toward the whole; so, with his version of pluralism we needn’t fear corpuscularianism.

Rodrigo Guerizoli draws attention to the fact that it is difficult to establish a coherent picture of Aristotle on the notion of differentiae, especially as accounts taken from his Metaphysics and Topics seem at odds with one another. Guerizoli’s “Boethius of Dacia on the Differentiae and the Unity of Definitions” presents a strong realist interpretation that reconciles the texts by means of the medieval distinction between how (modus) and what (res) we can signify or pick out. Boethius was an early modist (modistae) thinker. Modism proposes a strong correlation between thought, language and things. Conceptual differences are due directly to differences between existing things and their relations. So, for instance, the conceptual and linguistic difference between subject and predicate is a direct reflection of the ontological distinction between substance and accident, or in general between what is informed and what informs it. For this conception, the syntactical complexity of a definition (say, “rational animal”) that is truly predicatable of the definiendum, the simple term it defines (say, “man”),
generates the following problem: what corresponds to the multiplicity of the parts of the definition in the thing referred to by the definiendum?

Guerizoli identifies three theses that Boethius draws from the *Metaphysics* and *Topics*. From the *Metaphysics*, Boethius takes (1) the thesis of the sufficiency of the final differentia – which proposes that definitions are complex only syntactically, the semantic content is sufficiently expressed by the differentia, which signifies the substance of the subject. (2) the thesis of the priority of the genus and (3) the thesis of the plurality of the differentiae are drawn from the *Topics*, and hold that the genus would reveal more of the nature of the definiendum than what is indicated by the differentia, and that multiple differentiae may be needed to specify the definiendum, respectively. Boethius wishes to hold on to (1) because he is a unitarian as regards substantial form. Allowing that the differentia suffices for definition pre-emptively steers pluralists away from, e.g. the claim that, for a human, ‘animal’ signifies the sensitive soul and ‘rational’ the intellectual. Yet (1) is at odds with (2) and (3), which respectively call for a complex formula and multiple differentiae. In response, Boethius allows that a complete definition is to be given in terms of the genus and the single perfect differentia (refusing to give priority to either) while rejecting (3) outright.

Aquinas draws on Plato’s theory of forms in order to illustrate his own notions of God and angels. Moreover, he describes the relationship between God as subsistent being and creatures somehow participating in that being in very Platonic terms. And yet Aquinas himself roundly rejects Plato’s theory of forms, taking several opportunities to criticize it across the course of his career. Yet, if Plato’s theory is in fact incoherent, then doesn’t this implicate Aquinas’s metaphysics of participation inasmuch as it is grounded in Plato’s theory? “What Has Aquinas Got against Platonic Forms?” by Turner Nevitt argues that Aquinas does not believe that Plato’s theory of forms is incoherent. In fact, Aquinas admits that God could create things akin to such forms, e.g. a separate, subsisting whiteness as in the sacrament of the Eucharist. Again, Aquinas never states that Plato’s theory is self-contradictory. In light of these considerations, Nevitt looks to Aquinas’s commentary on the *Metaphysics* in support of his contention that, in fact, Aquinas did not think that Plato’s theory is incoherent. Rather, Aquinas rejects Plato’s theory in the interest of parsimony as Aquinas believes that Plato’s forms are unnecessary as they cannot explain any of the things that Plato posited them to explain,
such as the changes things undergo, the nature and existence of things, and our knowledge of them.

The late-thirteenth and the early-fourteenth centuries saw the gradual subsumption of Aristotelian syllogistic under a general theory of consequences, which focused on logical relations between propositions, rather than their terms. Jacob Archambault’s “Mereological Hylomorphism” studies the development of the theory of consequences as it played out alongside the metaphysical debate over the number of substantial forms in a composite. In this connection, Archambault points to a distinction between physical hylomorphism, which posits that terrestrial objects are composites of matter and form and mereological hylomorphism, which looks on matter and form as distinct, proper, and integral parts of a hylomorphic compound. A study of Buridan’s theory of consequences, with its distinction between material and formal aspects of a proposition, reveals a mereological hylomorphism at work in Buridan’s logic that strictly mirrors Buridan’s physical hylomorphism. For, although Buridan is a unitarian as regards substantial form, Archambault notes that Buridan believes that matter and form are disjoint and (divinely) separable integral parts of a composite substance; hence, in this and other important ways, Buridan’s unitarian thesis differs from Aquinas’s. Archambault finds grounds for Buridan’s break with Aquinas in the dialectic of the debate over the number of substantial forms in a composite and notes that further study may likewise disclose a connection between the broader sense of ‘formal consequence’ recognized by Duns Scotus and William of Ockham and their shared commitment to hylomorphic pluralism.
MULTIPLEX COMPOSITION
AND THE PROSPECTS
FOR SUBSTANTIAL UNITY

ANDREW AR Lig

It is one of the commonplaces of Aristotelian metaphysics that many of the things that we most care for – and especially mundane, corporeal substances – have hylomorphic structure. Of course, “hylomorphism” names a family of theories. Thus, given the recent interest in hylomorphism as a solution to certain problems pertaining to material constitution and the relation of mind to body, it is perhaps worth spending some time on an earlier Scholastic version of hylomorphism to test its prospects as an account of the unity of substances.

In this paper, I will only make a short, tentative foray into what deserves a more thorough investigation. Primarily, I want to test the edges of a version of Scholastic hylomorphism with respect to a specific set of assumptions of medieval mereology, namely, that there are a variety of part–whole relations and that many of the parts of substances themselves seem to be divisible into parts. Divisibility and wholeness are closely aligned with Scholastic notions of unity. Indeed, divisibility often seems to be at odds with unity. Hence, if it turns out that the parts of a substance have parts, their role as principles of unity might be called into doubt.

1Unless otherwise noted, all translations are mine.
2See for instance, the recent work of Kathrin Koslicki (2008) and Mark Johnston (2006). Jeffrey Brower’s new book on Aquinas (2014) aims in large part to demonstrate that Aquinas’s version of hylomorphism has much to offer to current metaphysical disputations about the structure, unity, and identity of material things.
Medieval mereology *a la* Boethius (a quick summary)

Boethius’s *On Division* provides Scholastics with many of the mereological notions that they then employ in their thinking about the composition and structure of objects. We will, therefore, begin with a quick summary of some of the key ideas that Boethius puts forward about the division of things into their parts.

Boethius observes that there are a number of items that count as true wholes. I say “true whole” because Boethius takes pains to distinguish wholes and their divisions from other items that also are divisible, such as genera (in so far as they are divisible into species) and words (*voces*) into their significations. Because these other items are divisible, there is a sense in which they have parts, and indeed, in Boethius and later writers, the products of these divisions are often said to be “parts.” This is not just a matter of laziness on their end. The relation of a species to a genus is a kind of partial ordering. So, in some extended sense, the species-to-genus relation has some features of what is now taken to be constitutive of mereological structure. Nonetheless, if pressed, Boethius will reaffirm that a genus is not really a whole and a species is not its part.

Once we put aside these other composites and we turn to examine only the true wholes, we still encounter a bewildering landscape.

Now let us speak of the division of the whole into parts, since this is the second division after the division of the genus. When we say “whole” we mean many things. For that which is continuous – such as a body or a line, or anything of that sort – is a whole. We also say that non–continuous things are wholes – for example, a whole flock, a whole population, or a whole army. Again, we call that which is universal – such as human or horse – a whole, since these things are wholes of their parts – i.e. of humans and horses. And for this reason, we say that each human is a particular. And again, that which consists out of certain powers is called a whole. For example, of soul one is the power of reasoning, another is of

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3See, e.g., Boethius *On Division* 887b: “This ought to be said: the genus is a whole in division, and a part in definition; and the definition is in such a way as if parts compose a whole of a sort, and division is in such a way as if a whole is resolved into parts; and the division of a genus is similar to the division of a whole, whereas the definition [is similar] to the composition of a whole. For in the division of a genus, animal is the whole of human [sc. corresponding to human], since under it human is embraced. But in a definition, [animal] is a part, given that the genus combined with the other *differentiae* composes the species.”
sensing, and another of basic metabolic functioning (*vegetandi*); these are parts, not species [of soul].

There are wholes that divide into continuous parts and those that divide into discrete ones. There are wholes that divide into homogenous parts and those into heterogeneous ones. There are also wholes divisible into matter and form. Interestingly, Boethius insists that the universal in so far as it is divisible into individuals is a true whole.

We are also told that a single manifold, or *multiplex*, object admits of several distinct kinds of division.

Therefore, it is in these many ways in which we speak of “the whole”. And first, if it should be continuous, the division of the whole should be made into those parts out of which the whole is perceived to consist. Otherwise, a division is not made. For you divide the body of a human this way into its parts: into a head, hands, chest, feet, [and so forth]. [And this is how to do it] even if by some other manner a correct division could be made with respect to the proper parts. However, for those things whose composition is manifold, the division is also manifold. For example, an animal is separated into those parts that have parts similar to themselves – e.g. into flesh and bone – and also into those that do not have parts that are similar to themselves – e.g. hands and feet. In the same manner both a ship and a house also [are divisible]. We resolve a book into verses, and these into words, and again, the [words] into syllables, and syllables into letters. And thus it happens that syllables and letters and names and verses are seen to be specific parts of the whole book. Yet, in another way, [some of these] are not taken to be parts of the whole, but rather parts of parts.

For example, a gold statue of David is divisible into its shape, or form, and the gold. It is also divisible into its right and left halves. It is divisible into portions of gold. And it is divisible into head, torso, hands, feet, and so forth. Each of these divisions, we should note, *exhausts* the entirety of the object.

Some of these divisions are clearly into overlapping parts. But strikingly, some of the divisions that this one multiplex object can accept result at their termini into sets of parts that both exhaust all that there is of the divisible starting point and are non-overlapping. Let’s move from the gold statue – which brings with it some complications that I wish to ignore – to

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4Boethius *On Division* 887d-888a.
5Boethius *On Division* 888a-b.
the gold itself. This gold is a substance. It is divisible into a right and a left half, or a top and a bottom. It is also divisible into portions of the gold. Perhaps these two divisions can be aligned with one another, for we could say (I think quite reasonably) that a division into a right and a left (or top and bottom) is not a complete division – this division has not reached what I am calling a terminus. The division under examination is one of a whole into homogeneous parts, and such a division does not reach its terminus until we resolve the gold down to its smallest gold portion. But now go back to the starting point, to this gold. Now divide it into what are often called its “essential parts”, that is, into its substantial form and the prime matter. These two divisions, the first into homogeneous parts and the second into essential parts both exhaust the object. They also seem to not overlap. No portion of the gold is a proper part of either the prime matter or the form. It also appears that neither the form nor the prime matter is a proper part of any proper part of the gold.

**The easy problem**

So here is a question about the unity of this gold: Boethius seems to define a kind of whole in virtue of how it is divided. Given that we have two exhaustive, non-overlapping divisions of the same putative object, doesn’t it appear that we have two wholes that are the same as this one object? To sharpen the point, consider Walter Burley’s suggestion that the same object is divisible, exhaustively it seems, into a full set of material parts, and it is also divisible into a full set of formal parts.

It should be understood that “whole” and “part” can be taken in several senses. “Part”, for instance, sometimes has the sense of essential part. (The Philosopher and the Commentator in many places call this the qualitative part, and they call the integral part the quantitative part.) And it is in this sense that “whole” is taken in the sense of either a whole with respect to

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6See Boethius *On Division* 888b: “There is also a division of the whole into matter and form. For in one manner the statue consists of its parts, and in another manner of matter and form – i.e. out of bronze and its figure (*species*).”

7Here I admit that there are some complications. As many of you know, there is a robust debate in the Scholastic period about precisely how a substantial form imbues its matter. Is it extended through the matter in such a way that part of the form is here and another part there? Is it wholly in each bit of the matter (in so far as we can individuate the bits, of course)? It is for this reason that Bob Pasnau once proposed that Aquinas is in fact committed to the view that a stone, or my hunk of gold, is in fact not a substance (see his 1997, 130-2).
form or a whole with respect to matter, and placed opposite to these, there is the part with respect to form and the part with respect to matter. The parts with respect to form are those that always remain the same so long as the whole remains the same and complete. The parts with respect to matter are those that flow in and flow away. Examples of the former include the hand and the head as well as others of the sort that remain the same so long as the whole remains the same. Examples of the latter include flesh and marrow, since these flow in and flow away even as the whole remains the same. And just as “part” is spoken of in these two senses — one with respect to the matter, the other with respect to the form — “whole” is likewise spoken of in two ways, one with respect the form and one with respect to the matter. Accordingly, a man in youth and in old age has the same soul at every time [that he exists] and is the same whole with respect to the form. But he is not the same [whole] with respect to the matter, since at one age he has one matter and at a different age a different matter. This is because the matter of the food that has been incorporated into the augmented thing’s nature \(<\text{augments}\)** the [thing’s] matter. When considered in terms of that which is augmented or diminished, new matter is continuously acquired and old matter is continuously lost, and hence, it is not the case that a man always remains the same with respect to the matter, even though he might remain the same with respect to the form.\(^9\)

The material object is thus the same thing as two wholes. But the full set of material parts has different conditions for persistence from the full set of formal parts. If X and Y have different conditions for persistence, X and Y are distinct. Ergo, the material object is the same as two distinct wholes. But how can this hold unless this material object fails to have any interesting sort of intrinsic unity?

If you have been sitting on the edge of your seat waiting to protest, don’t worry, I see the solution too. This Boethian methodology for determining what is a whole fails to account for the ontological subordination of some parts to others. Go back to my hunk of gold. No portion of gold can be a part of the prime matter, because it would not be a portion of gold unless there were a thing composed of prime matter and the right substantial form. If the form were not present, the portions of prime matter would not be gold. (They might not even be portions — since on some views, all accidental properties, including quantitative properties depend upon the substance and hence upon the substantial form.) In other words, even though the two divisions of the gold are exhaustive, one is ontologically or

\(^8\)Following the editors’ recommendation that we should add “augens”, or something similar (p. 301, note 6).

\(^9\)Walter Burley *De toto et parte*; ed. Shapiro and Scott, p. 300.
“naturally” prior. It is a precondition for there being a division into homogeneous parts that there is essential, hylomorphic composition. This is also how we can address the puzzlement prompted by Burley’s treatment of composition.

The harder problem: the parts of souls in that they are forms

I might be overlooking some interesting wrinkles that will need to be ironed out, but overall, I think there is a clear path forward toward solving this first puzzle about unity in the face of multiplex composition. Hence, I call it the easy puzzle about multiplex objects. The harder puzzle involves one of the essential parts, namely, the substantial form, and it comes into view when we look at one kind of substantial form, namely, the human soul.

This harder problem arises from the fact that, on the one hand, there are compelling reasons to identify structure, complexity, and therefore parts in the soul. But since a soul is a form, it also has the job of unifying the human animal. But it seems that no substantial form, let alone a soul can unify the animal if it itself has parts.

The argument against the divisibility of forms can be found in at least two versions in two places in the Aristotelian corpus. The first is at the end of Metaphysics Zeta, the second is De Anima 1.5. Since the argument in the De Anima is specifically geared toward the soul, I will point you to it.

Some say that the soul has parts (meriste), and thinks with one part, and desires with another. In this case what is it that holds the soul together, if it naturally consists of parts? Certainly not the body; on the contrary the soul seems rather to hold the body together; at any rate when the soul is gone the body dissolves into air and decays. If then some other thing gives the soul unity, this would really be the soul. But we shall have to inquire again, whether this is a unity or has many parts (hen e polumeres). If it is a unity, why should not the soul be directly described as a unit? And if it has parts, the progress of the argument will again demand to know what is its combining principle (ti to sunechon ekeino), and thus we shall proceed ad infinitum.11

11 Aristotle De Anima 1.5, 411b5-14; trans. Hett (Loeb).
Here is how the argument seems to go:

Suppose X is constituted by a set of parts PX. PX will need something external to it to unify it. Call this Y. But now suppose that Y also has parts, PY. PY too will need something external to it to unify Y. Call this Z. Now Z will either be partless or it will have parts. If Z is partless, then we have found our principle of unity, and Z ought to be the form, not Y. But if not, the argument will run again. (And so it might go to infinity.) Therefore, if Y had parts, Y cannot be the form.\(^\text{1}\)

\(^1\)Compare to Siger of Brabant’s interpretation of the argument from the De Anima and Metaphysics: “[…] it is contrary to the ratio of form that it be composed out of many parts. Aristotle makes such an argument in the seventh book of his Metaphysics: If some being and some unity must exist out of many, and if it must not be that these many exist in the way that a heap does, then it must be the case that there is something that unites these many things, the cause of the being and unity of these things, and this will be a form. But if again this [i.e. the unifying form] is a composite out of many, then the argument goes in the same manner, and it will proceed infinitely. Therefore, it is contrary to the ratio of form that it can be composed out of many parts. And this line of reasoning is confirmed by the fact that the aforementioned composition of a form would be out of many which are actually distinct from one another. In these sorts of cases [Aristotle’s] proposal – namely, that out of many there cannot come to be something one, unless there is some third thing that unites them, which will be a form – holds true. However, a being and unity can come to be without a third thing unifying them so long as the many out of which it comes to be are not distinct in act, but exist rather as potency and act (as matter and form exist). In this case, one of the [many components], namely the form, is the cause of the being and unity of the matter, and thus out of matter and form something one may come to be. And this is not because there would be a third thing, which is the cause of the being and unity of these, but because matter and form do not have existence through distinct causes of being. Rather, one is the cause of the being of the other, as matter in itself is not some being; it only potentially exists (tantum potest esse). So, it is through this matter that form per se is united to matter; it is not through a unifying intermediary that it is per se the cause of the being of that. […] And the above-mentioned argument about form, specifically, the form that is soul, is one that Aristotle gave at the end of the first book of De Anima. If the vegetative, by which something is a living body, and the sensitive, by which something is animal, were diverse parts of the soul, Aristotle argues that there would have to be a third thing that unifies them, and this third thing would be more the soul. And again if form were a composite out of many parts distinct in act, then as we have seen, because it has a form [the first form] would not be one in act in an absolute sense (simpliciter), although it might be granted that it would be one in virtue of a last act. But there would not be one in virtue of a last substantial act, since a form possessing a form, from which [the former] is actually distinct, is not related as a substantial act to a potency, as it
If the argument is sound, then assuming that a substantial form is responsible for the unity of the substance, no substantial form can have parts.

But perhaps this is not Aristotle’s intention. After all, he is on record in numerous places – in the De Anima no less\(^\text{13}\) – asserting that the soul has parts. Rather, the purpose of the argument in De Anima 1.5, and also in Metaphysics 7.17, might be to target a specific way of partitioning the soul or form.\(^\text{14}\) After all, we have already learned that “part” is said in many ways. Perhaps De Anima 1.5 is not ruling out the idea that the soul might have certain sorts of parts. If this right, the argument in De Anima 1.5 would have a different construal – such as something like the following:

Suppose X is unified to degree D and that X is constituted by a set of parts PX. PX will need something external to it to unify it, namely, Y. But now suppose that Y has a degree of unity that is on the same par as or weaker than X. If that were true, Y would be unable to unify PX to degree D. For example, if X were a substance, then Y would be unable to make X one substance. At best, Y could make PX into an aggregate.

On this construal, the form could be divisible into parts, so long as this division is compatible with the form being more of a unity than the composite that it unifies.

So far; so good. The trick, however, will be to show that the divisions of the soul never result in a set of parts that compromises the greater unity of the soul with respect to the unity of its composite.

**Partitioning the soul, part 1**

The soul, as it happens, is threatened by partitioning at numerous turns.

For one thing, Boethius (following Aristotle’s practice) divides the soul by means of its powers.

\(^\text{13}\)See, for example, De Anima 2.2, 413b5-9, 413b13-16, 413b27-414a1; 3.4, 429a10-18. Also On Memory 450a16-18; On Sleep and Waking 454a11-14.

\(^\text{14}\)This is, for instance, Johansen’s reading of De Anima 1.5 (see 2014, 42). See also Corcilius and Gregoric 2010, 82-5.
Of the whole which consists of powers, its division ought to be made in this manner: Of soul, one part is in plants, another in animals; and again, of that which is in animals, one is rational and another is sensible; and after that, these are dissected by means of other subdivisions. But soul is the whole of these things, not their genus. They are parts of the soul, not as in quantity, but as in some power or virtue. For the substance of the soul is combined out of these powers. Thus, it happens that a division of this sort has something similar to both the division of the genus and of the whole. For it is because each part of which soul is predicable implies [soul] itself, that [this division] is compared to the division of the genus, [a genus] of which wherever there is a species, the genus itself immediately follows. However, this must be compared to the nature of a whole: not every soul embraces all the parts, but some [embrace only] some of them.¹⁵

Once a soul’s powers appear as principles for partitioning the soul, hosts of other possible divisions of the soul into parts seem to present themselves. For example, it appears that, given the powers manifest in different parts of the body, the soul itself might be divisible in quantity or place. And even if some powers come bundled together, when it comes to some low-level organisms, the soul itself seems to be divisible into two new souls if we cut the organism in two.¹⁶

Moreover, plants clearly live even when divided (diairomena), and some of the insects also; which implies that the parts have a soul specifically if not numerically the same as that of the whole (hos ten auten echonta psuchen toi eidei, ei kai me arithmot); at any rate each of the two parts has sensation and moves in space for some time. It is not at all surprising that they do not continue to do so; for they have not the organs necessary to maintain their natural state. But none the less all the parts of the soul are present in each of the [divided] parts [of the worm], and the [soul parts] are homogeneous both with respect to each other and with respect to the whole. [So] although they [viz. the parts of the soul] are not separable from one another, the whole soul is thus divisible.¹⁷

Some of these potential ways of partitioning the soul itself can be easily managed. For example, its seems that one can admit that powers of the soul manifest in different parts of the body (or, in the case of the intellect, in no part of the body) without cutting up the soul itself by drawing some

¹⁵Boethius On Division 888c-d.
¹⁶See De Anima 1.5, 411b19-27; and 2.2, 413b16-24. See also mentions of the physical partition of plants and annelids in On Length of Life ch. 6, 467a18-23; and On Youth 468a23-b12.
fairly plausible distinctions, such as between a thing (a substance) and its activities (accidents), or between a thing and the instruments that it needs to perform its operations and functions. One might even be able to hold that in the case of plants and annelids, the partition of the soul is only accidental. Or, in the case of plants (which seem to be the true threat, as their partitions can survive and flourish), one can merely concede that there is no such thing as a plant. A plant is perhaps better thought of as a community of organisms, as opposed to one complete substance.

When pressed, these solutions might reveal some soft spots, but I want to move on to what I see to be the toughest challenge to the Scholastic hylomorphic theory. It pertains to the human soul, which on the one hand is a substantial form of the composite human being, but on the other something that is able to subsist in its own right (per se), at least for a spell, and which is itself the subject of several accidental changes. That the human soul must subsist in its own right is a requirement of the faith. The human soul must be able to survive separation from the body. The human soul also seems to be the subject of accidental changes, since a human intellect does not think about the same one thing throughout its long existence. Rather, it thinks about many things: right now a cat, later the Pythagorean Theorem. It also seems to be able to learn: there was a time when I did not know the Pythagorean Theorem.

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18This is Albert the Great’s solution: “We say that the soul is one and has power parts (partes virtuales), whereas the body is one and has organic parts, which all have a continuous connection (continuationem) to one, the heart. Thus, one ought to say that the soul is in the heart and from there its powers emanate into the whole body. And thus, it is not a whole in the whole such that it is a whole in each part [of the body]. Rather, it is in each part in virtue of some one of its powers. […] And yet even if we grant that [the soul’s] essence is present to each of its powers, it is not necessarily true that if a power is separated its essence is separated. For this power is attached to this organ, whereas the essence of the soul is not. Rather it is in the heart, which is the organ to which the essence of the soul has been assigned. And thus the essence is not separated from the heart unrestrictedly, it is only separated with respect to this operation, which it has in a part that has been separated. For as we said above [in Book 1, tract. 2, ch. 16], when a body is divided necessarily the soul is divided accidentally, although it was not divided in the way that a form which is spatially spread out in a body [can be]” (De Anima, Book 2, tract. 1, cap. 7; p. 75, ll. 34-54).

19This seems to be Aristotle’s own way out. In a remarkable little passage from On Youth Aristotle claims that animals which can survive for a spell when divided are “like a concretion of several animals, whereas the best constituted animals do not show this defect, because their nature is one as much as it can be” (468b9-12).
That a human soul is a thing that subsists in its own right and that it is itself the subject of accidents leaves the soul – which by hypothesis is a form – open to partitioning into hylomorphic parts. This would be a remarkable and, I think, unwelcome result.

The thought that the human soul might itself have hylomorphic structure, of course, is not a thought that I came up with. It was a proposal that was front and center in the thirteenth century. Thus, I am entertaining once more an old view and I am going to propose the perhaps scandalous thought that it is still a legitimate challenge to the Scholastic hylomorphist who nevertheless insists that the human soul has the two characteristics mentioned just above.

**Partitioning the soul, part 2: universal homomorphism redux?**

I will rehearse Bonaventure’s argument as it pertains to angels. But it should be clear how his line of reasoning also will apply to a human rational soul, assuming that it too is self-subsistent and capable of being the subject of accidents. Bonaventure first observes that there are numerous kinds of composition. Some of these kinds of composition are uncontroversially applicable to angels and *a fortiori* human souls. An angel, for example, is “composite” when considered in relation to its principle, or causal origin. An angel is also composed out of its substance, or actuality, and potency, for if there were no potency in an angel, it would be absolutely actual – i.e. a god. Parallel to this metaphysical structure, an angel has a logical composition, namely, a composition of genus and differentia. Finally, all created substances, including angels are composed of their being and their essence.

Moreover, [an angel] can be considered as a being in its own right (*ens in se*). And in terms of this to the extent that it actually exists there is in it the composition of being (*ens*) and existence. To the extent that it exists as something essential [i.e. that it has an essence], in it there is composition of “that through which it is” (*quo est*) and “what it is” (*quod est*). And to the extent that it exists as an individual or person, in it there is composition of “what it is” (*quod est*) and “who it is” (*quis est*).

Therefore, even though an angel is said to be simple, it is not absolutely simple, since it exhibits these aforementioned modes of composition. At

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20Bonaventure *In Il Sent.*, dist. 3, pars 1, art. 1, q. 1.
the same time, Bonaventure acknowledges that angels do lack some forms of composition: It is not composed out of quantitative parts, and it is not composed out of “a corporeal and a spiritual nature”, by which he means a soul and a body.

This much, Bonaventure takes to be agreed upon by all-comers. Where he breaks ranks with his opponents is on the question of whether angels and intellects in general have hylomorphic composition.

That it seems so is demonstrated in the following fashion: [a] Based on the account of change (mutationis). Nothing changeable is simple. An angel in accord with its nature is changeable and indeed has changed. Therefore, it possesses composition. And it’s being different comes from matter. In anything where there is change, the principle of changeability is present. And the principle of changeability is matter. Therefore, etc. […] Again, [b] this position can be demonstrated through the account of action and passion: Nothing both acts and suffers as the same thing and with respect to the same thing. But an angel, the same one, both acts and suffers. Therefore, it has one principle with respect to which it acts and another principle with respect to which it suffers. The principle with respect to which it acts is form; the principle with respect to which it suffers can be nothing other than matter. Therefore, etc. The major premise is obvious. The minor is also clear, since it is the role of an angel to both give and receive illuminations. […] Moreover, [c] this seems so through the account of individuation. Among angels there is a distinction of hypostasis, and it is not in virtue of origin. Thus, the following argument can be constructed: Every numerical distinction comes from an intrinsic, substantial principle, since even if all accidental features were put to one side, there are still distinct items in the sense of numerical differences. This does not come from form. Therefore, it comes from a material principle. […] Moreover, [d] this position can be demonstrated by means of the nature of essential composition. An angel has a definition, and accordingly it participates in the nature of a genus and of a differentia. The former is a nature in virtue of which it agrees with others; the latter is a nature in virtue of which it differs. Therefore, given that necessarily the whole truth of the definition is really found in any angel, necessarily one must posit a diversity of natures in the angel. It is impossible that many natures come together to construct a third unless one has the ratio of possibility and the other the ratio of actuality. For nothing comes to be out of two things existing in potentiality, and likewise nothing comes to be out of two things existing in act. Therefore, necessarily, [one must be existing in potentiality, and the other in act.\(^\text{21}\)]

\(^{21}\)Bonaventure In II Sent., dist. 3, pars 1, art. 1, q. 1.
To summarize this long passage, Bonaventure identifies four phenomena that will force us to concede that intellects must have hylomorphic structure:

1. Rational substances are changeable, which means that there must be the proper internal structural features to accommodate change; specifically, there must be an active (“formal”) part and a passive (“material”) part.

2. Rational substances both act and suffer. Hence, there must be the proper internal structural features to accommodate, namely, an active (“formal”) part and a passive (“material”) part.

3. Rational substances are individuals. All individuals must have a principle of individuation. The only principle of individuation available is the combination of a formal element with a material element.

4. Rational substances have an essence and a definition, which requires that there be both a part that is responsible for the substance belonging to a general class (the genus) and a part that is responsible for the substance belonging to its most specific class. The former is a “material” element; the latter a “formal” element.

Bonaventure thinks it is an open and shut case that all created substances, including angels and other putatively “simple” intellects, exhibit these phenomena.

I do not see a cause or account (ratio), by means of which one can defend [these claims] unless the substance of an angel – indeed, any essence of a created per se being – is composed out of different natures. But if there is composition out of different natures, these two natures will be disposed towards one another in the manner of an actual thing to a potential one – that is, of form and matter. And once this has all been laid out it seems to be closer to the truth (plerior esse) that in an angel there is composition out of matter and form.22

In short, there is no intelligible option for explaining these phenomena other than to posit that the metaphysical parts that make these phenomena possible are a material nature and a formal nature.

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22Bonaventure In II Sent., dist. 3, pars 1, art. 1, q. 1.
Bonaventure’s specific arguments vary in quality, and many readers will know how various thirteenth-century philosophers responded to them. But I want to suggest that (1) and (2) point to a common problem and deserve a second look. Averroes pronounced that a simple substance couldn’t be the subject of accidents. Boethius was covering the same terrain when he asserted that a form couldn’t be the subject for other forms.

Therefore, nothing is said to be on account of matter, but rather on account of a proper form. Yet, the divine substance is form without matter, and hence, it is one and it is that which is. The remaining forms are not that which are. For each and every one has its being from those out of which it is (that is, from its parts) and so it is this and that (that is, its parts conjoined), not this alone or that alone. For example, since an earthly human consists of a soul and a body, it is the body and the soul, not (going part by part) either a body or a soul. Therefore, he is not that which is. But what is not from this and that, but is only this, this is that which is, and this is the most beautiful and the most powerful, since nothing outshines it. But for this reason this is a one in which there is no number; nothing is in it apart from that which is. Nor, in fact, can it be a subject, since it is a form, but forms cannot be subjects.

Once I buy into the basic hylomorphic account for change, this simple thought seems on the face of it to be right. At the very least the burden of proof seems to be on the Aristotelian who wishes to violate this dictum. And it is here that the Aristotelians seem to be resorting to some ad hoc measures to work around this dictum. For instance, consider these two arguments:

[Argument 1, and a reply]

Next it will be asked whether the human intellect is a composite of matter and form. It appears that it is. The Commentator proves in his On the Substance of the Sphere [1, 4 B] that a simple substance cannot be the subject of accidents. His argument is this: As it was said in the first book of the Physics [cf. 1.7, 190b20], form along with matter is the cause of all accidents being in a subject. Now, the intellect is the subject of accidents. Therefore, etc.

[ad 1] In opposition to the first, one should reply that some accidents are real. Examples of these are the white, the dark, and things of this sort, and for these kinds of accidents it cannot be the case that a simple substance is

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23See Averroes De substantia orbis 1, 4 B.  
24Boethius On the Trinity 2, 28-43.
their subject. But other accidents are intentional, and for these kinds a simple substance can very well be a subject.25

[Argument 2, and a reply]

Again, every potency is receptive in virtue of its material nature (per naturam materiae). According to both Aristotle [cf. De Anima 3.4, 429a15-16] and the Commentator [cf. Averroes In De anima 3.3], intellect has a receptive potency. Accordingly, it has this in virtue of a material nature. Therefore, [intellect is composed of matter and form.]

To [this objection] it should be said that there are two kinds of receptive potency: one which is a potency in relation to reception and dismissal and transmutation, and it is this kind that is in virtue of material nature; the other consists in pure reception, and this is not in virtue of material nature. It is this [second] sort that is in the intellect.26

Given that the intellect is the subject of accidents, it must be complex, and it is hard to see how this complexity can be anything other than either hylomorphic complexity or something like hylomorphic complexity. It thus is interesting to observe that many Scholastics who resist universal hylomorphism concede that rational souls and other intellects have something like hylomorphic composition:

[Exhibit 1]

However, there is in a human soul something that is “material” and something “formal”. The material element is the possible intellect, by which everything can come to be, since the soul in virtue of the possible intellect is in potency to all material forms. The formal element in the soul is agent intellect by means of which all things are made. Nevertheless, this “material” item should be distinguished from prime matter, for [prime matter] is the principle of corruption, whereas the “material” [element in the soul] is not. Furthermore, they differ in the manner in which they receive things. Prime matter receives forms as individuals, that is, as these [forms] (individuales et has). The intellect receives material forms

25Anonymous “Semi-Averroist” Quaestiones in De Anima Book 3, q. 2; Giele et al. 1971, pp. 303-5.
26Siger of Brabant Quaestiones in tertium De Anima, q. 6; Siger de Brabant 1972, pp. 17ff.
universally. Hence, they differ in terms of their receptive natures and their modes of receiving.27

[Exhibit 2]

Consequently, we should inquire whether the intellect is a composite of matter and form. And it seems that it is. [obj. 1] It is certain that the intellect has some sort of composition. But it cannot be composed out of two actual entities; rather [it must be composed] out of one that is in potency and another in act. What is in potency is matter, and what exists in act is form. Therefore, it is composed out of matter and form. […] Therefore, there is some sort of composition in the intellect, but as we have seen, this is not a [composition] out of matter and form. We should say that the intellect is composed out of a material [constituent] and a formal [constituent], just as [a definition is composed] out of a generic form and a difference-making form (forma differentiae). Accordingly, it is composed out of a “material” form and an act. For it is not the case that all forms are simples, and since all the parts of a definition are forms, it must be the case that one is material in relation to the other and that anything [arising out] of them is a composite. Therefore, it is clear how it will go in the case of the other [sc. the intellect].

[ad 1] To the first argument [in favor of hylomorphic composition] it should be said that it is true that the intellect has some sort of composition and that this composition is not out of two pure acts. Accordingly, it is out of two acts, of which one is “material” in relation to the other and where the other is “formal”.28

Assuming that these quasi-formal and quasi-material parts are real – and for at least some Scholastics, they are – the unity problem comes back into view. Parts imply decomposability and dependence.

Furthermore, every genus is naturally prior to its proper species, whereas a whole is posterior to its proper parts. In some cases, the parts that compose the whole precede the completion of its composition only in nature, in other cases, in reason as well as time. Hence, it happens that we resolve a genus into posterior things, but a whole into prior things.29

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27Anonymous “Semi-Averroist” Quaestiones Book 3, q. 2; Giele et al. 1971, p. 304.
28Siger of Brabant Quaestiones in tertium De Anima, q. 6; Siger de Brabant 1972, pp. 17ff.
29Boethius On Division 879b-c. See also On Division 880a: “There is still the matter of giving the differences between the distributions of the word and the whole. They differ in this way: the whole consists of parts, but the word does not
Worse, and more to the point at issue, the existence of parts appears to necessitate the existence of an external principle of unity. Otherwise, one of the standard arguments for God’s absolute simplicity appears to lose its force.30

Of course, as we already noted, the existence of parts in a specific unifier need not compromise the ability of that unifier to unify something else. But the burden of proof seems to be on the advocate of this line of response to show that even though a soul – again, a form of a special sort – has quasi-hylomorphic composition, this kind of composition is more unified than the unity that the soul then goes on to impose on the (true) hylomorphic composite. It is here that I want to challenge the Scholastic to make the case that this is true; for I see no obvious way forward that does not amount to a case of positing a new sort of thing that can accomplish just this task. This, alas, has the stink of an ad hoc maneuver. The prospect for reviving a thirteenth-century version of hylomorphism seems rather dim.

So, should we be platonists?

It is sometimes easy from our vantage to forget that there was nothing inevitable about the fact that mainstream Scholasticism adopted the Aristotelian dictum that a soul is a substantial form. Other authorities, such as Augustine and Boethius subscribed to the platonic view that a human soul is a separable substance that is like a form in many respects, but strictly speaking it is not a form. Thirteenth-century philosophers would have also encountered this platonic position in Avicenna’s De Anima. Avicenna concedes that a soul can be thought of as a form in that it consist of those things that it signifies. And the division of a whole is made into parts, whereas that of the word is not made into parts, but rather into those things that the word signifies. Hence, it happens that when one part is removed, the whole perishes, but if a word designates many things, when one thing that it signifies is removed, the word remains.”

30Here I am thinking of the argument rehearsed by, among others, Aquinas: “The second reason [why God is altogether devoid of composition] is that every composite is posterior to its components and it is dependent upon them. God is the first being, as was demonstrated above. The third reason is that every composite has a cause. For things that are diverse in their own right (secundum se) do not converge into some sort of unity unless by means of some additional cause that unites them. God, however, does not have a cause […]” (Summa theologiae I, q. 3, art. 7).
perfects, or completes, the body. Moreover, the soul is “quite distinct from
the substance that has its being through the soul, and it is that on account
of which the substance [i.e. the whole human being] is what it is.”
Moreover, the soul is the “active” constitutive part of the human being,
which is placed in relation to a “potential” constitutive part, namely, the
body. However, when push comes to shove, Avicenna makes it abundantly
clear that the soul is not a form in the strictest sense of the term; it is only a
form in an extended, analogical sense. The argument that he offers was
well known to early thirteenth-century Scholastics. Hence, Avicenna
prefers to characterize the soul as the perfecting constitutive part of the
whole human being. The soul at the time of its creation is created in a
body, and it has a tendency toward its specific body. Nevertheless, once
it has been created, the human soul does not require a body in order to
exist. “The soul achieves its first entelechy through the body; its
subsequent development, however, does not depend upon the body but on
its own nature.” The human soul’s relation, then, to its body is
accidental.

Platonism in the sense that I am using it stresses the *per se* subsistence of
the soul, and in particular, the notion that at least some souls – namely,
ellec ts – are separable and can exist on their own at least for some time.
Clearly, Platonism is friendlier than Aristotelianism on this score to
orthodox theism. It is also easier to see how a platonic soul can do many of

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31Avicenna *De Anima* I, c. 1, p. 20.
32For one such example, see John Blund *Tractatus de anima* II.i, §§14-16 (pp. 5-
6): “It is held by Aristotle that the soul is the perfection of an organic body that
possesses life in potency. But one might object: Form gives being and matter is
intrinsically (*in se*) imperfect. Hence, every perfection is a form. Thus, since a soul
is a perfection of an organic body that possesses life in potency, a soul is a form.
But no form is a thing existing in its own right (*per se existens*) once it is separated
from the substance. Therefore, since a soul is a form, a soul cannot be said to be a
thing existing in its own right once it is separated from the substance. Therefore, a
soul cannot exist separately (*separari*) from a body, but it will perish along with
the body. To this one should say that the name "soul" designates a thing as it is in a
complex. For it signifies a substance under a certain accidental condition, namely,
in relation to an organic body insofar as this [body] is animated and vivified by
that [soul]. It is in virtue of this accident that it is said to be the perfection of the
[body], specifically, because this [viz. the soul] animates that [viz. the body].”
33Avicenna denies that souls pre-exist the body and that they can migrate from one
body to another: *De Anima* V, cc. 3-4; *Kitab al-Najat*, book 2, section 6, cc. 12 and
14 (Rahman (trans.) *Avicenna’s Psychology*, pp. 56 f. and pp. 63-4).
34Avicenna *Najat*, 2, 6, c. 12 (*Avicenna’s Psychology*, p. 58).