

CHAPTER 22

MIND AND HYLOMORPHISM

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FOR later medieval philosophers, writing under the influence of Aristotle's natural philosophy and metaphysics, the human soul plays two quite different roles, serving as both a substantial form and a mind. To ask the natural question of why we need a soul at all—why we might not instead simply be a body, a material thing—therefore requires considering two very different sets of issues. The first set of issues is metaphysical and revolves around the central question of why a human being needs a substantial form. The second set of issues is psychological and turns on the question of why we should suppose that our mind is aptly characterised as a soul. This chapter takes up these two questions in turn and then turns to whether we should suppose that one and the same thing—a soul—is both substantial form and mind. This dual-function thesis is the most distinctive feature of later medieval psychology and is one reason that work from this era remains well worth reading today. Whereas modern thought furnishes many sophisticated discussions of the immateriality of mind, and the metaphysics of body, philosophers since Descartes have rarely considered that it might be one thing, the soul, that accounts for both thought and substantial unity.

1. SOUL AS FORM

In a seminal recent paper, Judith Jarvis Thomson remarks that 'surely a Tinkertoy house is made only of Tinkertoys; surely it has no additional ingredients, over and above the Tinkertoys it is made of' (Thomson 1983, 201). For Thomson, the Tinkertoys are simply a particularly vivid illustration of a point she wants to make about material substances in general. Big bodies are made from smaller bodies, and they

contain nothing other than bodies. The appeal of this way of viewing the situation is easy to see, since it is hard to imagine what other sorts of parts a body could have, and hard to see what might motivate our seeking to find any other kinds of parts. Even so, medieval philosophers almost without exception reject Thomson's claim and suppose instead that material substances, in addition to whatever smaller bodies they might be composed of—their *integral* parts—are also composed of various non-bodily parts of a more *metaphysical* sort. For authors writing under the influence of Aristotle, such metaphysical parts are characterized as either form or matter, and the formal parts are further divided into those that are accidental and those that are substantial.

A full defence of this Aristotelian metaphysical programme would require a separate defence of these three kinds of metaphysical parts—prime matter, accidents, and substantial forms—each of which admits of its own rationale. Here our focus is on only the last of these, and especially on those substantial forms, rational souls, that are found in human beings. From the medieval perspective, however, the case for postulating a rational soul rests in large part on arguments that extend much farther than the human case, applying not just to living things but to material substances in general. This is to say that the heart of the medieval case for postulating a rational soul rests on the fact that we are material substances, and that in general material substances cannot be understood on the model of Tinkertoys, as simply collections of smaller bodies assembled in a certain way. Beyond the familiar flesh, blood, bones and other integral parts that compose us in Tinkertoy fashion, we are made up of some further sort of entity, a substantial form.

It is, admittedly, not usual to view the medieval doctrine of soul from this perspective, from the bottom up rather than the top down, so that one postulates the rational soul as a consequence of broader metaphysical doctrines rather than as a special case that may or may not apply outside of the human domain. This first kind of perspective is hard for us to recognize because the word 'soul' itself seems properly at home only in the human case and fits awkwardly into a broader metaphysics of substance. Moreover, we have been taught by Descartes and others to regard the spread of soul talk beyond the human case as a disastrous bit of scholastic overreaching, taking an idea that has its place within us and putting it to work in places where it has no business at all. Descartes's perspective is, however, fundamentally alien to the medieval tradition. That tradition sees Aristotle's *De anima* not as a treatise on human nature, but as the first, foundational work in a longer cycle of biological works. A soul, accordingly, in the Aristotelian tradition, is simply the first internal principle of life, in anything that is alive (cf. *De an.* II.1, 412a28). Whatever it is within a thing that most basically explains its being a living substance, that is what the thing's soul is. This thesis, in turn, is seen as simply a particularly vivid instance of Aristotle's broader metaphysics, according to which, what distinguishes substances from non-substances is that they are not just a heap of integral parts but are the parts somehow unified, by a substantial form. Viewed from this perspective, all living things, of course, have a soul, and the only question in the human case concerns what that soul is like.

The distinctive features of the rational soul will emerge once we turn our attention from metaphysics to psychology. What first needs discussion, however, are the metaphysical reasons that led medieval authors to insist on a soul as something over and above the integral, Tinkertoy parts. Here we might consider three lines of thought, two of which were developed in considerable detail by medieval authors, and a third that is suggested by recent work in metaphysics.

First, there is the argument from change. If bodies are simply aggregates of smaller bodies, with their only parts being integral parts, then any kind of change to such a body will wreak havoc on our conception of what that body is. In particular, we will have no grounds to distinguish between, in medieval terms, accidental and substantial change—or, in other words, between cases of change to a substance that are identity preserving (accidental change, or alteration) and cases of change that are identity destroying (substantial change, or generation and corruption). John Buridan, for instance, writing in the mid-fourteenth century, considers the view that ‘matter disposed in one way is fire, disposed in another way it is water, air, or stone’ (Buridan 1989, *In De an.* III.11). This is to say that there are no substantial forms within substances, and that the difference between one substance and another rests simply on matter’s being arranged in one way or another. The view is an old one, Buridan says, and was rejected by Aristotle for good reason:

This was the view of Democritus, Melissus, and those who claimed that everything is one in substance. For they were not so foolish as to believe that this human being is the same in number as that one, but [they did make this claim] for things that appear to be generated from one another: for instance, if from earth A comes water B, and from water B comes grass C, and from grass C comes horse D, and so on for all species of generable and corruptible things, then horse D is the same as what was grass, water, and earth, since the same matter that they claimed to be the whole substance of the thing was first earth, then water, grass, and horse, disposed in one way and then another. These claims are extremely obscure and dangerous, however, for in the same way a donkey was a stone, and a stone has always existed, and no horse or human being has ever been generated, although matter has been made a human being or a horse. These things have been sufficiently condemned by Aristotle and others, and in no way would I want to assent to them. (Ibid.)

If the difference between earth, water, grass, and horse is just a difference in their material parts and how those parts are arranged, then Buridan thinks we will be pulled towards a view on which nothing ever undergoes substantial change. The very same thing—call it a stone if you like, though the choice of nomenclature is arbitrary—‘has always existed’, at some times looking more like a horse or a donkey, but never becoming anything different from what it has always been.

A similar statement of this same kind of argument for substantial form can be found a few years later in Marsilius of Inghen. Marsilius takes up the question of whether there is any need for a mixed body to have a substantial form that is something more than the four elements and their primary qualities (hot, cold, wet, dry), mixed according to a certain proportion. The first in his series of seven arguments

for the affirmative makes a point much like Buridan's, that without substantial form the distinction between alteration and generation collapses. But whereas Buridan imagines the opponent of substantial form eliminating generation entirely, and treating all change as mere alteration, Marsilius supposes to the contrary that 'if in the mixed body there is no other form beyond the forms of the elements, it would follow that alteration would be generation' (Marsilius of Inghen 1505, *In Gen. et cor.* I.22). This is to say, in effect, that with no further resources beyond the elements and their qualities, any case of alteration might be counted as a case of generation. This is the opposite of the result Buridan describes, but really these are two sides of the same coin. For if the distinction between alteration and generation collapses, one could say either that all alteration is generation, or that no alteration is generation. Either substances never endure through change but instead always become something new, or they always endure through change and never become something new. The plausible middle ground that respects our intuitions about the individuation of material objects cannot hold. That sort of principled distinction between generation and alteration requires substantial form.

To be sure, neither Buridan's nor Marsilius's argument is decisive. For one thing, it could just be that one or the other of the radically revisionary metaphysical results described is true. Maybe nothing does go out of existence, or maybe nothing endures through change. More palatably, there are doubtless other ways in which a more commonsensical metaphysics might be preserved. Perhaps, for instance, it is just a brute fact that a donkey exists if and only if material stuff is arranged in one or another of various ways, and that as soon as the arrangement strays beyond those limits, that substance ceases to exist, and something else begins to exist. But if this is supposed to be just a brute fact, then it is hard to resist the suspicion that the boundaries of what counts as a donkey are just conventional. Without some further element—something beyond the integral parts arranged in Tinkertoy fashion—it is hard to see what would ground any sort of objective limits in the sort of change consistent with a thing's preserving its identity. Anyone moved by such considerations should find later medieval thought particularly interesting because never before or since have philosophers devoted such intensive efforts to developing a theory of what such further elements might be.

A second, related kind of metaphysical argument for substantial form targets synchronic unity—that is, the apparent fact that certain aggregates of material stuff have a special sort of togetherness that justifies our thinking of them as substances rather than as mere heaps. It is interesting that Buridan, at the start of the long passage quoted earlier, lets the pre-Socratics off the hook in this regard, allowing them the difference between one human being and another. Even so, such distinctions are highly problematic on this sort of reductive view. If all there are are corpuscles of various shapes and sizes, variously arranged, then it is not easy to see how we might draw the boundary lines, at any given moment, between one substance and another. Scholastic authors appeal to substantial form to explain such facts. The sixth of Marsilius's arguments for substantial form, for instance, runs as follows:

Sixth, [if there are no substantial forms, then] no mixed body would be one. The consequent is false, and the inference holds because there will be four elements so proportioned, and they will not be some further one thing. (Marsius of Inghen 1505, *In Gen. et cor.* I.22.)

This is supposed to be so obvious as to need no further explanation. For if a body is simply ‘four elements so proportioned’, then what makes it one thing rather than a collection of uncountably many particles coming in four basic kinds? We would have no basis for regarding the parts of a tree as parts of a single substance, and no basis for regarding an individual donkey as a single substance, rather than as many distinct substances or, alternatively, as part of a larger substance such as the whole medina, or indeed the whole material universe. Again, substantial forms are not the only way to proceed, but without *something* to determine these boundary lines, the ontology of common sense appears to be alarmingly conventional.

A third kind of consideration in support of substantial form comes from the role it might play in avoiding the threat of vagueness. Vagueness is a threat because it seems as if things in the world cannot be vague, but yet at the same time it seems that the sorts of boundaries described above must be vague. How can there be a sharp cutoff, for instance, between what counts as a mere heap and what counts as a genuinely unified substance? Some things, such as a donkey, are clearly not heaps; other things, such as a pile of stones, clearly are heaps; some things appear to be just hopelessly poised in between. At what point, for instance, is the grain consumed by the donkey a part of the donkey, rather than being a foreign element inside the donkey’s alimentary canal? Similar questions arise about the precise point at which things come into existence and go out of existence. All of this seems vague, which suggests that there seems to be no good answer to the question of what is and is not a unified substance. Many modern metaphysicians have found such questions so worrisome as to be driven towards postulating that nothing composite counts as a single entity, or that everything, no matter how scattered, counts as a single entity. Obviously, it would be preferable to have some less radical solution to these problems.

Later medieval authors have such a solution ready to hand. For any given region of material stuff, there will be a non-vague fact about whether the bodies in that region are informed by a given substantial form, and whether they continue to be so informed over time. To be sure, we will not be in a position to know the truth about such fine-grained details, and so facts about the unity and identity of substances will look vague to us. The vagueness, however, is purely epistemic; the world is determinate. This kind of epistemic solution is a well-known modern answer to the problem of vagueness. To many it seems incredible, however, that the natural world could contain such hidden facts about the exact boundaries of things. Again, the later medieval era recommends itself as the period when such a conception of the world, as made determinate by Aristotelian forms, has been worked out in the most complete detail.

Here then are three kinds of work that the doctrine of substantial form might do, both in our own case and in the case of other substances. Admittedly, clearly

identifying this work is a double-edged sword. On one side, a clear sense of what substantial forms are supposed to do helps to make the doctrine less obscure. But it may at the same time serve to make it seem wholly incredible. Can we really suppose that, beyond the Tinkertoys, there is also a form of Tinkertoy, or some such thing, that grounds our familiar ontology of persisting, unified substances? Even if—worst-case scenario—postulating such a form is the only way to save common sense, it is not clear that the gain is worth the cost. Perhaps we are better off giving up on common sense. This, in effect, is what the great anti-scholastic figures of the seventeenth and eighteenth century all concluded, in one way or another, and the resultant proliferation of wild metaphysics is the price they paid.

The exact cost of substantial form depends, however, on how the theory is spelled out. One question concerns how widely to postulate such forms. Medieval authors generally deny, for instance, that artefacts have substantial forms. Hence, they can grant the case of Tinkertoys: convention rules in such questions of unity and identity because an assembly of Tinkertoys is never a real substance at all. The view can be made still more readily defensible if masses of non-living stuff (pools of water, stones) are likewise excluded, so that the only aggregate material substances will be living things. Here, unfortunately, medieval authors tend to be less clear about their position.¹

A second, all-important question regarding the cost of substantial form concerns what sort of thing these substantial forms are supposed to be. The theory can be given at least a patina of respectability if one insists that substantial forms are simply *abstracta*. Modern philosophers are accustomed to deploy abstract entities in all sorts of respectable domains, from mathematics to ethics, and so one might find their use here to be equally palatable. To be sure, it is quite unclear what it even means to characterize a thing as abstract rather than concrete. But it is far from clear, on any construal, that substantial forms on the medieval conception could fall on the abstract side of that divide. They are, for one thing, very much located in time and space. The substantial form of this donkey exists right here, where the donkey exists, and inheres in all and only those integral parts that compose the donkey. Moreover, medieval authors understand substantial forms to be causally efficacious. Far from being mere abstract characterisations of an essence or a function, the medieval substantial form is a causal agent in the most straightforward way. Thus, when Marsilius of Inghen considers the possibility that a substance such as a donkey might be generated and later corrupted entirely as a result of the varying mixtures of elements within it, he objects not just on the grounds that there would be no non-arbitrary boundaries, but also on the grounds that varying mixtures of elements simply could not—as a physical matter—give rise to something with the properties of a donkey:

Nor does it help to say that [different substances] are of distinct most specific species because of the distinct disposition of the proportions in their elemental qualities. For they are not said to differ in species through the distinct proportion and disposition in their material qualities. For if the whole substance of these mixed bodies were the elements, without any new form added on, then it would

follow that their elements would not differ in species, and [so] neither would the mixed bodies that are those elements differ in virtue of their distinct qualitative dispositions or proportions. (Marsius of Inghen 1505, *In Gen. et cor.* I.22.)

Causes at the micro-level simply could not produce a wholly new macro-level entity such as a donkey, ‘without any new form added on’ One needs that substantial form not just to do metaphysical work, but also to do physical, biological work.

It is hard to see how we, today, could accept the existence of anything like a substantial form, when viewed in this sort of concretely causal sort of way. Our physics and biology have developed in ways that do not tolerate any such central, organising principle. So if we are to embrace substantial forms, they will have to be somehow more abstract in character. But if we try to take this general metaphysical picture and apply it to the human case, we run into trouble. For whatever we might want to say about substantial forms in general, the human substantial form—the rational soul—is not supposed to be merely a bit of metaphysical *abstracta*. On the contrary, the rational soul, if it is anything at all, is at least in part the human mind. But the human mind, though it may be immaterial, seems indisputably a causal agent. Hence, a full appreciation of the medieval theory of soul requires us to go beyond metaphysics, into psychology, and consider what needs to be said about the soul when viewed as the human mind.

2. SOUL AS MIND

Put in terms of high scholastic metaphysical jargon, a substantial form is the actuality of a substance, conferring on matter the substantial existence (*esse*) in virtue of which it is actually what it is. In Thomas Aquinas’s terms, whereas an accidental form makes a thing be such (e.g., hot or coloured), a substantial form *dat esse simpliciter*—‘gives existence unconditionally’ (*Summa theol.* 1a 76.4c). But this is not to say that the substantial form merely accounts for the difference between existing and not existing, as if it were the task of accidental forms to fill in all of the details of what the thing is like. Rather, the accidental forms are responsible only for a thing’s non-essential properties, leaving the substantial form to account for what the thing essentially is. The substantial form of a donkey, then—the donkey soul—gives rise to all the features of the thing in virtue of which it is a donkey, whatever those defining features may be. Indeed, for the soul of a donkey to account for the *esse simpliciter* of a donkey just is for it to make a certain aggregate of matter such as to have all the biological characteristics of a donkey. To have these characteristics just is what it is for a donkey to exist. As Aristotle had remarked, ‘for living things, living *is* existing’ (*De an.* II 4, 415b13). The implication is that there is no such thing as existence beyond the specific ways of functioning manifested by specific kinds of things.

When we apply these remarks to the human case, the result is that the human soul will be responsible for what makes us essentially human. Here we face a choice.

On one picture of human nature, we are simply minds, incidentally attached, for a certain period of time, to a certain sort of body. On another sort of picture, we are essentially biological organisms, coming into existence through certain biological processes and existing for as long as the living organism exists. On this view, we are not essentially minds at all. These two perspectives point towards two very different directions along which one might develop a theory of the human soul. Medieval authors, however, almost without exception, refuse to choose one option to the exclusion of the other. Instead, they treat it as essential to human nature both to be essentially minds and to be essentially biological organisms. This is the point of the familiar definition of human beings as *rational animals*. To have it both ways requires viewing the human soul as fulfilling two quite different functions, one biological and the other psychological. The soul must be, in short, both a mind and the form of a body. For later medieval Christian authors, such a double function was, in fact, an ecclesiastical mandate. The Condemnations of 1277 at the University of Paris forbade denying that the intellect is the actuality of the body, or treating the intellect–body relationship as like that of sailor to ship. In 1312, the Council of Vienne declared it heretical to hold that ‘the rational or intellectual soul is not *per se* and essentially the form of the human body.’ These statements guaranteed that the later medieval Christian theory of soul would be required to do double duty as both a theory of mind and a theory of the biological organism.²

As we will see below, this dual conception of the human soul gave rise to a lively scholastic dispute regarding whether some sort of distinction needs to be drawn between the mental and the biological aspect of soul. Is there a distinction of powers here, or perhaps even distinct substantial forms? There was general agreement, however, on the underlying assumption that the operations of mind are fundamentally distinct from the operations of body. This is not a verdict required by anything said so far. For even if human beings are essentially both minds and bodies, it could well be that the human soul actualizes the mind by actualising our bodies—presumably, our brains—in a certain way. To say this would be to treat the mind as something wholly biological and corporeal, a special feature of human beings, perhaps, but special in something like the way that having opposable thumbs is special—a special feature of our bodies.

We have now arrived, of course, at the old and vexed dispute between materialists and dualists. Medieval authors, almost without exception, reject materialism. But although that much is clear, it is difficult to characterize where the thesis of hylomorphism stands relative to the more straightforward dualism of Plato or Descartes. As should already be clear, later medieval authors do not fall into the camp of the dualists rather than the materialists simply because they ascribe souls to human beings. This by itself decides absolutely nothing in that debate because to postulate a soul is simply to postulate a substantial form and as such arises out of general metaphysical considerations that have nothing to do with the question of how mind stands to body. The characteristic medieval duality between mind and body arises from their denial that the soul accounts for mental phenomena in the way it accounts for other features of living organisms, by informing the body.

Instead, according to most medieval authors, the soul gives rise to the human mind without actualising matter at all. This is to say that the human soul by itself, quite independently of the body, is responsible for the thinking and willing that are the characteristic operations of mind. Although there are many things one might mean by 'dualism', this is the most common and widely accepted medieval formulation: that the operations of mind are performed by the soul independently of the body.

Even though dualism, so conceived, was almost universally embraced, there was considerable controversy over whether the thesis could be proved. The most prominent advocate of such proofs was Aquinas, who put particular weight on the following argument (with numbers supplied for the premises):

It is necessary to say that the principle of intellectual operation, which we call the soul of a human being, is a non-bodily and subsistent principle. For [1] it is clear that through the intellect a human being can cognize the natures of all bodies. But [2a] that which can cognize certain things must have none of those things in its own nature, because that which exists in it naturally would impede its cognition of other things. In this way we see that a sick person's tongue, infected with a jaundiced and bitter humor, cannot perceive anything sweet; rather, all things seem bitter to that person. Therefore if the intellectual principle were to contain within itself the nature of any body, it could not cognize all bodies. But every body has some determinate nature. Therefore [3a] it is impossible for the intellectual principle to be a body. [3b] It is likewise impossible for it to operate *through* a bodily organ, because [2b] the determinate nature even of that bodily organ would prevent the cognition of all bodies. Analogously, a determinate colour not just in the pupil, but even in a glass vase, makes liquid poured into that vase seem to be of the same colour. Therefore [4] this intellectual principle, which is called mind or intellect, has an operation of its own that the body does not share in (*Summa theol.* 1a 75.2c).³

What drives this argument is the idea that the intellect displays a startling plasticity in its cognitive range. Our other cognitive capacities—sight, hearing, and so on—are each rigidly limited to a certain domain, that of colour, sound and so forth. But the intellect, according to the first premise of the argument, can think about anything (or at any rate anything in the material realm, which is as strong a claim as Aquinas takes himself to need). The second premise of the argument then asserts that such plasticity would be impossible if the intellect either (a) were a body or (b) were to operate through a body. From these two premises the sub-conclusions of (3a) and (3b) immediately follow, and they together yield dualism in the sense defined above: that the mind operates independently of the body.

If the human soul is responsible for the operations of the mind, and if the mind operates independently of the body, then the human soul is certainly a very special kind of form. Every other form with which we are familiar, substantial or accidental, performs its function in virtue of actualising matter in a certain way. The accidental form of blue, for instance, is a certain sort of actualisation of a body, and accordingly, colour is inconceivable apart from a body. Similarly, the substantial form of a donkey actualizes matter in such a way as to produce the complex biological systems characteristic of donkeys. All of those systems are corporeal, in the sense that they

are bodies so-and-so constituted and would not be the systems they are if they were, somehow, incorporeal. What Aquinas is arguing for, in the case of mind, is that here the soul is responsible for a feature of human beings that (3a) is not a body and (3b) does not rely on any body for its operation. It is in this precise sense that Aquinas, and other medieval Aristotelians, contend that the human soul is immaterial. It is not immaterial because it is a form. There are, after all, forms everywhere in nature, and they are perfectly ordinary parts of material substances. Nor is the human soul immaterial because it fails to inform a body or lacks location. The human soul does inform a body, just as every form does, and so is located where that body is located. What makes the human soul immaterial is that it does something more—it has an operation that it carries out independently of the body, inasmuch as the human soul, all by itself, thinks.

But even if this is a conclusion that medieval authors generally accepted, still they disagreed over whether it could be proved. One who thought it could not was William Ockham. With Aquinas's arguments evidently in mind, Ockham takes up the question of whether 'one can know evidently through reason or through experience that we think, taking "thinking" to mean an act proper to an immaterial substance of the sort the intellective soul is claimed to be' (William Ockham 1991, *Quodlibet* I.10). Ockham certainly does not seek to deny that we are aware of our own thinking. The question is whether we can know through reason or experience that thought is the operation of an immaterial substance, the soul alone. That this thesis is *true* Ockham does not deny. But he thinks that it is something one must take on faith, as a Christian. So he responds to the question as follows:

If by 'intellective soul' one means an immaterial and incorruptible form that exists as a whole in the whole body and as a whole in each part,⁴ then one cannot evidently know either (a) through reason or (b) through experience that such a form exists in us, or that an act of thinking proper to such a substance exists in us, or that such a soul is the form of the body. . . . Now (a) it is evident that these things cannot be demonstrated, since every argument meant to prove them presupposes things that are doubtful to a human being who is following natural reason. Nor (b) are they proved through experience. For we experience only acts of thinking and acts of willing and similar such things. But one who follows reason along with experience would maintain that these are all operations and passions that are caused in and received in that form that he would claim distinguishes a human being from a brute animal. And even though, according to the faith and according to the truth, this form is an intellective soul that is an incorruptible form, the person in question would nonetheless maintain that this form is extended, generable, and corruptible. And it does not seem that experience would establish a different sort of form. (Ibid.)

An argument for dualism, Ockham contends, would be grounded in either (a) reason or (b) experience. Dismissing each in turn, he concludes that the soul's immateriality can be accepted only as a matter of faith.

With respect to arguments from reason, Ockham dismisses them all with a wave of his hand, remarking that 'every argument . . . presupposes things that are

doubtful to a human being who is following natural reason.' It would have been nice, at this point, if Ockham had offered us a few examples of failed arguments. Still, it is easy enough to see what he means, if we go back to the argument from Aquinas quoted above. Although the logical form of Aquinas's argument is valid, none of the premises are self-evident in the way they would have to be to yield what Ockham calls 'evident knowledge'. It is not perfectly clear, for instance, as the first premise has it, that the intellect *can* 'cognize the natures of all bodies'. Even more doubtful is the second premise (2a, 2b): that the determinate nature of a bodily organ restricts the scope of what such an organ can cognize. Although the comparisons to taste and sight are suggestive, it is far from clear that they generalize. There is no reason at all to be confident that the intellect, if it relied on the brain, would similarly be limited in the scope of what it could grasp. This is, of course, just one argument, albeit a particularly well-known one. Still, the intervening centuries have not made it seem any more likely that a demonstrative argument for the mind's immateriality is forthcoming.

What about experience? Ockham contends that all we experience are the acts themselves of mind—acts of thinking, willing, and so on. There is nothing in these experiences that points towards any sort of distinctive, non-physical origin. The usual sort of biological explanations, in terms of a substantial form actualising the body, would seem to serve perfectly well. This part of Ockham's case would meet with no dispute from Aquinas, who thinks that the truth of dualism can be established only using reason. In recent years, however, this second path has taken on a certain sort of appeal among some dualists. For it is sometimes suggested that simple introspective reflection on the character of mental experience provides reason for thinking that such a thing cannot be explained in ordinary biological terms. A simple question—How could the brain account for *that?*—is in some quarters taken seriously as a powerful argument. Ockham, for his part, sees nothing in the experience of thought or volition that points towards a non-biological, immaterial explanation.

It is interesting, in this connection, that the kinds of mental phenomena at issue for Ockham and his contemporaries are different from what they are for us. We now think of perceptual states—seeing a colour, say—as paradigmatic examples of the sort of mental phenomena that resist physical explanation. But for Ockham, as for other medievals, sensation is indisputably a biological process. We sense as other animals sense, using physical organs, and though those organs are capable of sensation only in virtue of being actualized by the soul, the story here is not fundamentally different from the story for our locomotive or digestive powers. The cases that are supposed to be special, then, are cognitive and volitional acts at the intellectual level—the level of abstract, universal thought. When Ockham claims that the introspective experience of our own mental states does not point towards any sort of special cause, he is saying that abstract thoughts and volitions seem, on their face, to require no more special explanation than does sensation or nutrition. In every case, if we followed reason alone, we would expect their cause to be a form that is 'extended, generable, and corruptible'.

For Ockham, then, it must be a matter of faith that the human soul is of a fundamentally different kind from the souls of other animals. At this point one might wonder why such a claim *had* to be held on faith. Could one not be a devout Christian and still think that the human soul is a physical, biological form just like other substantial forms? Certainly, there have been and there continue to be theists of all kinds, including Christians, who think just this. The difficulty arises when one comes to the question of the soul's immortality, which is clearly a non-negotiable tenet of at least the Christian faith. For the human soul to be immortal, it must evidently be capable of existence apart from the body, inasmuch as the human body does not ordinarily survive death. Aquinas, however, insists—and his contemporaries largely agree—that the human soul can exist apart from the body only if it can function apart from the body.⁵ This puts tremendous weight on the thesis of dualism, in the precise sense defined earlier. For if even the operation of thought requires a body, then it is hard to see what else the rational soul might be capable of doing apart from the body. Accordingly, if dualism cannot be proved, it looks as if the soul's immortality cannot be proved.

Supposing dualism can be proved, one might still have doubts regarding immortality. After all, even if it is true that the soul thinks and wills on its own, this does not guarantee that the soul will continue to do so when separated from the body. The further step required here is particularly evident for medieval Aristotelians because of their insistence that human beings are essentially corporeal—not just souls, but soul–body composites. Insisting on our essentially corporeal nature entails that although *our souls* may survive death, apart from the body, *we ourselves, as human beings*, do not survive death. Of course, for the Christian, that cannot be the end of the story, and so what theologians like Aquinas argue is that we are able to exist after death only once our bodies are resurrected. Until that happens, your separated soul does not count as a person, or as a human being, or even as you:

Abraham's soul is not, strictly speaking, Abraham himself; it is rather a part of him (and so too for others). So Abraham's soul's having life would not suffice for Abraham's being alive. . . . The life of the whole compound is required: soul and body. (Thomas Aquinas 1882–; IV *Sent.* 43.1.1.1 ad 2.)⁶

In as much as no one thinks the resurrection of human bodies can be proved philosophically, this doctrine precludes establishing the immortality of human beings. Aquinas thus thinks that although the *soul's* immortality can be proved, human immortality must be taken on faith.

The entanglement of soul and body makes still more trouble than this, however, with respect to immortality. Part of the reason Aquinas and other medieval Aristotelians insist on the essential bodily component of human beings is that they think the body—in particular, the five external senses plus imagination, memory and the other internal senses of the brain—play an essential role in thought and volition. Indeed, Aquinas, John Duns Scotus and others insists that the human mind can think nothing at all without a phantasm—that is, without some kind of accompanying sensory image, which the brain produces a steady stream of, in order to give concrete shape to

the abstract thoughts of intellect.⁷ How can this doctrine be squared with dualism's insistence on the mind's separate function? For Aquinas, the answer turns on a distinction in senses of 'can'. The human soul can think and will without the body, in the sense that this is metaphysically possible. But as things are, in this life, when the soul is entwined with the body, it is not naturally possible to think without sensory images. So what then will happen after death? Aquinas insists that there will then be room for other possibilities. In particular, he insists that 'once separated from its body, the soul will have a different mode of cognition, like that of other substances that are separate from body' (*Summa theol.* 1a 75.6 ad 3). The other substances to which he refers are the angels. Aquinas's position, therefore, is that the human soul, in the period of time between death and the resurrection, will shift to a different mode of cognising, one not dependent on sensory experience, but rather attuned to divine illumination. Thus, 'a separated soul uses intellect just like the angels do, through species that it receives from the influence of the divine light' (*Summa theol.* 1a 89.3c).

All of this maneuvering is meant to bridge the gap between the soul's immateriality and its immortality. Unsurprisingly, it met with considerable scepticism. Pietro Pomponazzi (1462–1525) devoted an entire treatise to challenging various arguments for the soul's immortality and characterized this part of Aquinas's account as a tale worthy of Ovid's *Metamorphoses* (Pietro Pomponazzi 1948, ch. 9). It is, indeed, quite hard to see how philosophical reflection alone can get us all the way to the thesis that human beings live forever. Too much would seem to rest on contingencies concerning the divine will. A lesser task is to establish that the character of the human soul is fundamentally different from other souls, and in general from other substantial forms. But although this was generally believed to be so, its susceptibility to philosophical demonstration was less clear.⁸

3. MIND AS FORM

For most later medieval authors, the soul is both the form of the body and the immaterial principle of thought. In virtue of the first, soul and body are said to make a single, unified substance. In virtue of the second, the soul is said to be immaterial and immortal. It is, however, not easy to see how these two doctrines can co-exist, and many of the leading philosophical debates of the medieval era engaged with this issue.

The most radical proposal in this domain treated the intellect not only as distinct from the human soul, but even as outside the human substance—as a single immaterial entity, shared by all human beings. This was a natural way to read Aristotle's remarks about the *nous poietikos*, which the *De anima* had described, in remarks notorious for their obscurity, as 'separable, unaffected, and unmixed . . . immortal and eternal' (*De an.* III.5, 430a17–23). Even many orthodox Christian authors were prepared to equate this 'agent intellect' with something beyond human nature, usually understood as God himself.⁹ But this seemed tenable in the case of

agent intellect because it left another intellectual power, Aristotle's *nous pathetikos* or 'possible intellect,' within the human soul, distinct for each individual. A more radical idea was that even this possible intellect might be something outside human nature, so that while each of us would have an individual soul, no one would have an individual mind. We think by somehow sharing in the thought of a centralized mastermind. This idea was popularized by Averroes and became very influential among Latin authors such as Siger of Brabant and Paul of Venice.¹⁰ Although today the view is likely to seem too bizarre to be taken seriously, it can be seen as simply one way of understanding what it means to insist on the intellect's immateriality. For if we are persuaded that the mind is immaterial, and that human beings in contrast are corporeal, then one solution is to treat the mind as something outside of us, something whose operations we somehow manage to participate in, as it were, at a distance.

Such a view could scarcely be squared with orthodox religion. In Islam, Averroes's views were generally scorned. Among Christian authors, though various philosophers were tempted by Averroism, the theologians were united in their opposition. Aquinas and Ockham, for instance, for all they differed, both thought it flatly incoherent to suppose that the human power of thought is shared among all human beings. According to Ockham, the same intellect cannot know a thing and, at the same time, be ignorant of it—hence, according to the Averroist doctrine it would be impossible for one person to know something that another person does not know (*Quodlibet* I.11). Aquinas's argument is similar. Imagine that Socrates and Plato share a single eye. Then there would be two people seeing, but one act of vision. (Imagine, better, that Socrates and Plato share the same visual power all the way up into the brain. How could they be seeing different things?) This would be so in the case of intellect, too, which is bad enough, but Aquinas thinks that case is still worse because he thinks, not implausibly, that the intellect is constitutive of our individual identities. Hence, in contrast to the case of the shared eye, 'if there is a single intellect, then no matter how different all the other things are that the intellect uses as instruments, there is no way in which Socrates and Plato could be said to be anything other than a single thinker' (*Summa theol.* 1a 76.2c).

Setting the Averroistic hypothesis aside, and supposing that each human being has its own intellect, there is still a further question of how that intellect stands to the soul. As we saw already, Church authority from the early fourteenth century forward mandated treating the intellect as the form of the body. This goes beyond saying that the *soul* is the form of the body. One might embrace that view, for the sort of metaphysical reasons described earlier, and yet think that the *mind* or *intellect*, as something immaterial, cannot possibly inhere in the body as its form. Aquinas was the leading proponent of the orthodox Church view, offering philosophical arguments not just for the thesis that a human being requires a substantial form, a soul, but also for the thesis that this substantial form must be the principle of thought. For if mind and body were not united as form to matter, but simply as mover to moved, then there would be no way to account for the evident fact 'that it is oneself who thinks' (*Summa theol.* 1a 76.1c). The most we could say, Aquinas argued, is that there is thinking going on within us. Ockham, in contrast, thought

that no philosophical arguments were available here. Just as we say that someone is an oarsman because of his oar, so we might say that I am a rational animal because of my intellect (*Quodlibet* I.10). Now one obvious difference, which Aquinas makes much of, is that we think of human beings as *essentially* rational, not essentially oarsmen. Part of what is at issue here is whether that itself can be proved. As before, however, it is not implausible to think that having an intellect is part of what defines us as the individuals we are. Aquinas by no means demonstrates that the hylomorphic theory of substantial form is the only way to capture the notion of an essential attribute, but he challenges his opponents to produce some other coherent account of the situation. It is not adequate, Aquinas urges, simply to treat human beings as a composite of two distinct substances, mind and body, even if those substances are tied together by quite extensive causal connections.

Although the appeal of Aquinas's hylomorphism is clear enough, there was considerable scepticism among later medieval authors regarding whether the view is ultimately coherent. The intellect's immateriality, as we have seen, consists in a certain sort of independence from the body. How is this compatible with its being the form of the body? Aquinas's arguments notwithstanding, many accepted Church orthodoxy on this point only as a kind of unintelligible mystery. John of Jandun, a leading Latin proponent of Averroism, was not so rash, in the censorious atmosphere of fourteenth-century Paris, to defend the Averroistic unicity thesis. Instead, he simply recites the orthodox line that the intellect is the form of the body and then adds, with more than a hint of animus towards the intellectual restrictions under which he worked: 'Everything that the Catholic faithful say, I say to be unconditionally true, without any doubt, even if I do not know how to show it. Let those who know how to do this rejoice. For my part, I hold and profess these things on faith alone' (John of Jandun 1587, III.12, col. 291).¹¹

For authors seeking to maintain some commitment to a hylomorphic account of soul-body unity, but doubtful of how soul could be both form and mind, it was common to postulate the existence of multiple substantial forms.¹² Scotus, for instance, postulated that human beings have both a rational soul, responsible for thought, volition and perception, and a further substantial form that actualizes the body, the *forma corporeitatis*. Ockham maintained that human beings contain three substantial forms: the rational soul, the sensory soul and a substantial form of the body. This does not quite remove the sense of paradox that comes from treating the soul as both a form of the body and an immaterial power. For the pluralists, the intellect is *still* a form of the body. But the approach at least distinguishes between the kind of form that the rational soul is and the kind of form that actualizes an ordinary corporeal substance. By drawing this distinction, the pluralists were able to account for the intuition that a living thing has, as it were, two axes of identity, as on the one hand as a living thing, and on the other hand as a body. The living thing may cease to exist, on this picture, while the body yet endures, as a corpse. Aquinas, in contrast, insisted that every substance has only a single substantial form, which required him to maintain that when the living thing goes out of existence, every part of that thing goes out of existence, all the way down to the level of prime matter, which is the only enduring substratum for

substantial change. This does not on its face seem very plausible—it looks like a person’s body can survive death, at least for a short time—but Aquinas contended that such tightly bound identity conditions are precisely what distinguish substances as unified entities. Anything that is less tightly bound is a mere heap.¹³

Aquinas’s unitarianism is extremely austere in its insistence that the human substance, like any material substance, is nothing more than a composition of prime matter with a single substantial form. (Accidental forms are then added to that substantial composite to yield the *per accidens* unities that we are familiar with—the white dog, the musical Socrates, etc.) An important part of what makes this theory coherent, however, is that Aquinas regards substantial forms as themselves having structure. In the case of souls, he distinguishes between the essence of the soul and its powers, so that in the human case, for instance, he can speak of the soul itself, which informs prime matter, and the various powers—agent and possible intellect, will, internal and external senses, and so on—which are themselves accidents of the soul. This is how Aquinas squares the soul’s status as form with its status as immaterial intellect. It is the soul, strictly speaking, and not the intellect, that is the form of body. The pluralists, with other distinctions in place, generally felt no need to distinguish between the soul and its powers. They generally treat the rational soul as simple, a conclusion they held to befit its immaterial status.¹⁴

This debate between unitarians and pluralists continued throughout the scholastic era, without any consensus ever emerging. The unitarian position of the Thomists offered a beautifully clear account of what substantial forms are but imposed a degree of substantial unity that struck many as incredible. The pluralist account fitted better with common sense. But in distinguishing the rational soul from the form of the body, pluralists made it hard to understand the sense in which the rational soul is itself a form. Inasmuch as we understand the notion of a substantial form at all, we understand it in the paradigmatic case where the form gives a body its defining characteristics. Although the pluralists were compelled by their Christian faith to maintain that even the rational soul is the form of the body, it is often hard to see what force other than verbal can be ascribed to such pronouncements. Such tendencies culminated in the case of René Descartes. He proposed simply to jettison all talk of souls, and speak in the human case only of the simple, extensionless, immaterial mind. Is the mind the form of the body? Of course it is, says Descartes, ever eager to be a good Catholic, but knowing full well just how little such claims had come to mean within the scholastic tradition.¹⁵

NOTES

1. I have argued that Thomas Aquinas accepts as material substances only living things and the smallest bits of non-living stuff—see Pasnau (2002a, ch. 3). This reading of Aquinas is, however, controversial, and it is no more clear what position other later medieval authors would take.

2. For 1277, see Piché (1999, n. 7). For the Council of Vienne, see Denzinger (1967, n. 902).
 3. For another version of this argument, see Thomas Aquinas (1999, 345,131–59); *In De an.* III.7, sec. 680, which elaborates on a sketch along these lines that Aristotle had put forth at *De anima* (III.4, 429a18–24).
 4. Ockham here stresses the standard medieval doctrine that the human soul, rather than being spatially extended in the usual way, exists throughout the whole body, and wholly in each part of the body. Following Henry More, the seventeenth-century critic of the doctrine, we can label this ‘holenmerism’. Ockham mentions this here because he takes it to be an important aspect of what makes the human soul distinctively immaterial. Aquinas, in contrast, thinks that all complex substances have holenmeric substantial forms (see, e.g., *Summa theol.*, 1a 76.8). On the relationship between holenmerism and immateriality, see Pasnau (2011, ch. 16). On Ockham’s theory of soul more generally, see Adams (2001).
 5. See, for example, Thomas Aquinas (1961–7; *Summa contra gentiles* II.80, sec. 1618): ‘It is impossible for a substance to exist that has no operation’.
 6. For other texts from Aquinas that make the same point, see *Summa theol.* (1a 29.1 ad 5), *Summa theol.* (2a2ae 83.11 obj. 5 & ad 5), *Quaest. de potentia* (9.2 ad 14) and *In Primam Corinth.* (15.2.924). For further discussion of this difficult doctrine, see Pasnau (2002a, ch. 12). For a different reading of Aquinas here, which seeks to find room to treat the separated soul as the same human person, see Stump (2003, ch.1).
 7. See, for example, John Duns Scotus (1950–; *Lectura* II.3.2.1 n. 255) and Aquinas (*Summa theol.* 1a 84.7).
 8. Other critical discussions of Aquinas’s account of human immortality can be found in John Duns Scotus (1962, *Ordinatio* IV.43.2), and even in the great Thomist Cajetan (1965, III.2). Blasius of Parma (1974) is very unusual among medieval authors in denying even that the rational soul is immaterial. But Parma, appealing to divine contingencies in the opposite direction, remarks that even if our souls are material, still there is surely a way in which God can preserve our existence after death.
 9. See Alexander of Aphrodisias (1990), Avicenna (1968–72, V.5), Averroes (2009), III.18–19 and William of Auvergne (2000), VII.3–4.
 10. See Averroes (2009), Siger of Brabant (1972) and Paul of Venice (1503, *De an.* ch. 37). See, too, the anonymous Parisian questions on *De anima* I–II in Pasnau (2002b).
 11. For similar remarks see Henry of Harclay (2008), IX.59 and Peter Auriol (1605), II:224b; *Sent.* II.16.1.2.
 12. For the general question of unicity or multiplicity of substantial forms, see above, Chapter 21.
 13. Aquinas, *Summa theol.* 1a 76.3–4; John Duns Scotus 1639; *Ordinatio* IV.11.3; Ockham, *Quodlibet* II.10–11. For further discussion of the scholastic debate over the plurality of substantial forms, see Adams (1987, ch. 15) and Pasnau (2011, ch. 25).
 14. The thesis that the soul is identical with its powers was standard in the twelfth century, particularly among Cistercian authors (see McGinn 1977), and in the early thirteenth century (see Lottin 1948–60, I:483–90) and would be taken up again by Ockham (1967–1989; *Sent.* II.20) and the later nominalist tradition. For Aquinas’s real distinction, see *Summa theol.* (1a q. 77). Strictly speaking, Scotus invokes a formal distinction between the rational soul and its powers (John Duns Scotus 1639, *Reportatio* II.16), but the subtleties of that less-than-real distinction need not concern us here. For recent discussions of the relationship between the soul and its powers, see King (2008) and Pasnau (2002a, ch. 5).
 15. For further discussion of Descartes’s views in this domain, in comparison to the scholastics, see Rozemond (1998) and Pasnau (2011, chs. 24–5).
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