

Chapter 2

An Aristotle for the Universities: Natural Philosophy in the Coimbra Commentaries

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Descartes mentions the commentaries of the Coimbrans only twice in his correspondence. In 1640, anticipating objections by the Jesuits to the *Meditations*, and having some desire 'to re-read a bit of their Philosophy', he asks Mersenne to send him the names of the authors 'whom they follow most closely'. Wondering whether anything new has appeared in the last twenty years, Descartes adds that he recalls 'only the Coimbrans, Toletus, and Rubius'; he also remembers, but not by name, 'a Chartreuse or Feuillant' who wrote an *abrégé* of 'the whole School Philosophy.'¹ That author turned out to be Eustachius à Sancto Paulo, and it was to Eustachius' *Summa quadripartita*, which is indeed a greatly condensed compilation of other philosophers' works, that he eventually turned; he still wished, however, that the Coimbrans had written something as brief, since he would have preferred to 'deal with the great Society itself, rather than with a particular person.'²

Descartes briefly envisaged the uncharacteristic project of a commentary on the School Philosophy – a reprint of the *Summa*, to which Descartes' own *disputationes*

¹I have used the following abbreviations:

Coimbra, *In de Gen*: Coimbra [Collegium Conimbricensis]. *Commentarii Collegii Conimbricensis [...]* in duos libros de generatione et corruptione, Aristotelis Stagiritæ. Lugduni: Horatius Cardon, 1606. *In Phys.*: Coimbra [Collegium Conimbricensis]. *Commentarii Collegii Conimbricensis [...]* in octo libros physicorum Aristotelis Stagiritæ [...]. Lugduni: Horatius Cardon, 1602.

David of Dinant, *Quaternuli*: David of Dinant. *Quaternulorum fragmenta*. ed. M. Kurdzialek. Warsaw, 1963. (*Studia Mediewistyczne* 3).

Fonseca: *In met.* Fonseca, Petrus. *Commentariorum Petri Fonseca Lusitani [...]* in Libros metaphysicorum Aristotelis... Cologne: Lazarus Zetzner, 1615. (Facsimile repr. Hildesheim: Olds, 1964.)

Scoraille 1912–13: Scoraille, Raoul de, *Francois Suarez de la Compagnie de Jesus : d'apres ses lettres, ses autres ecrits inedits et un grand nombre de documents nouveaux*. Paris: P. Lethielleux, 1912-1913.

Suárez, *Disp*: Suárez, Franciscus. *Disputationes metaphysicæ*. Hildesheim: Olms, 1965. (Reprint of v. 25-26 of the *Opera*.) *Opera*: Suárez, Franciscus. *Opera omnia*. ed. D. M. André. Paris: L. Vivès, 1856.

Toletus, *In Phys.* Toletus, Franciscus. *Commentaria unà cum Quæstionibus in octo libros Aristotelis de Physica auscultatione*. In *Opera*, v. 4. (First printed 1572, with numerous subsequent editions.) *Opera*: Toletus, Franciscus. *Opera omnia Philosophica*. Cologne: Bireckmann, 1615–1616. (Facsimile repr. with intro. by Wilhelm Risse. Hildesheim: Olms, 1985.)

To Mersenne, 30 Sep 1640, AT iii. 185.

² To Mersenne, 3 Dec 1640, AT iii. 251

would be attached.³ He gave that up after a year or so.⁴ The *Principia philosophiæ*, which by then he had begun, contains no Aristotelian arguments; it mentions no philosopher of the Schools by name. Eustachius, Coimbra, Abra de Raconis, the tags remembered from his days *sous la férule* at La Flèche, the fruits of his recent attempts to arm himself against the 'grande Societé': all are absorbed into a mass designated by the term 'Philosophers', from which only Aristotle himself emerges to be named. In that distinction one may already divine the subsequent divergence of Aristotle's fortunes from those of almost all his commentators. His works, after a temporary eclipse, have regained their central place in the canon; all but a few of the commentators have vanished into the archive of the unread.

The impression one gets, not only from Descartes but almost all the *novatores*, that Aristotelianism had arrived at its twilight hour is not entirely mistaken. Among the hundreds of commentaries and *cursus* published from 1550 to 1650, some are routine, or dogmatic, in the way that textbooks can be in any age; and all of them, routine or not, are but rarely cited, except among themselves, after 1700 or so. But the best of them represent the last efflorescence of a philosophical movement that dominated the universities of Europe for four centuries. Among the most widely disseminated were those of Jesuit authors responding to the post-Tridentine call for a renewal of Catholic teaching in the face of schism and heresy. One aspect of this was to make Aristotle more accessible and to stabilize the interpretation of his texts, scraping away layers of controversy that had accumulated since Albert and Thomas. Like philosophy itself – the two were hard to distinguish then –, the Aristotelian *corpus* was an ambiguous instrument: in the battle against nonbelievers, it helped recruit to the cause of the Church the power of reason, which if effective would remove the need for powers less subtle. But it was also much in need of discipline, to chasten any claim to equal authority with faith and tradition.

In this essay, I focus on the ambitious project of the Jesuit teachers at Coimbra: a set of up-to-date commentaries extending to all the texts regularly included in the philosophy curriculum. In their period the commentaries were rivalled only by the somewhat later *Disputationes* originating from the Carmelite Colegio de San Cirilo at Alcalá, collectively known as the Complutenses. The impetus behind them came from Petrus Fonseca, author of a massive *Metaphysics* commentary. Fonseca's contribution was a commentary on the Aristotle's logical works, the *In universam dialecticam*; other authors, principally Emmanuel de Goes, wrote commentaries on the physical works, *De anima*, the *Parva naturalia* and the

³ To Mersenne 11 Nov 1640, AT iii. 233

⁴ To Mersenne 22 Dec 1641, AT iii. 470

Ethics. The series, which began publication in 1592, was widely reprinted; the last editions were published around 1630. The *Summa* of Eustachius, which draws upon them even to the point of verbatim repetition, was reprinted as late as 1647.

I will treat two standard *quæstiones* to illustrate the methods and conclusions to be found in the Coimbra commentaries, contrasting them with the same *quæstiones* in other Jesuit authors, especially Franciscus Toletus and Franciscus Suárez. Toletus's commentaries, on the *Organum*, the *Physics*, the *De generatione et corruptione*, and the *De anima*, were first published in 1572. Suárez, who spent his last two decades at Coimbra, incorporated what were likely to have been notes on *Physics* and *De generatione et corruptione* courses into his *Disputationes metaphysicæ*, first published in 1597.⁵ Descartes mentions Toletus just once, in the passage cited above; Suárez is mentioned only in the Fourth Replies (),⁶ but Descartes is likely to have known something of the *Disputationes*. As will become clear, my interest is not in specific parallels or anti-parallels, but in comparing systems of thought.

1. Matter Act, and God

Prime matter, one of the two components of corporal substance in Aristotelian physics, has long been a puzzle even to sympathetic readers. Even if Aristotle's own conception were clear, the conceptions of sixteenth-century Aristotelians, resting as they do on a lengthy and complex history of interpretations, would require further investigation. One of many reasons for this is that the most straightforward reading of Aristotle's own concept—that matter is a kind of indeterminate stuff, standing to all natural forms as sculptor's clay to the forms of statues, will not work for most Aristotelians even if it works for Aristotle. In particular, the Thomist interpretation, which will figure prominently here, of matter as pure *potentia* would seem to preclude the straightforward reading.

Physics commentaries and Aristotelian textbooks typically devote several questions in Book 1 to prime matter, which together with form & privation, is one of the three *archai* or principles of corporeal substance. Aristotle argues that through any physical change something must persist. In substantial change, like the transmutation of elements or the death of a human being, not only the

⁵ Concerning the commentaries Suárez is thought to have written in his early years as a professor of philosophy, see Raoul de Scoraille, Raoul de. Francois *Suarez de la Compagnie de Jesus : d'apres ses lettres, ses autres ecrits inedits et un grand nombre de documents nouveaux* (Paris, 1912-1913): vol. 2, 412–416.

⁶ AT vii.235.

accidents of a substance are altered but the substance itself changes in kind. Even then something persists, since otherwise we would have annihilation and creation, not change. What exactly remains through substantial change was controversial. But there was general agreement that prime matter, at least, remains, what changes is the substantial form. This, the most 'physical' of the many arguments for the existence of prime matter, leads to the conception of corporeal substance, henceforth distinguished as *complete*, as the union of two *incomplete* substances, namely, substantial form and prime matter.

Supposing the existence of prime matter to be proved, the task remains of defining it. One could ask, for example, whether prime matter is *per se* divisible, or whether it can have quantity or any other accidents except by virtue of form. My primary concern here is the *mode of existence* of prime matter. Specifically: is prime matter, as Thomas and the Thomists argued, *pura potentia*, pure potentiality, or does it have an *actus* or actuality of its own?

There is no doubt that matter exists when joined with form in the complete composite substance. 'Form gives being', as the slogan has it: the potentiality of matter, indifferently directed toward any and all corporeal forms, is actualized in the composite. There was general agreement that the actuality of matter in the composite included its being specified by form as a certain kind of material thing; the question was whether it also included the very existence of matter. In other words, does matter, considered in itself and apart from form, have an *actus* or actuality? (Since we are talking about a substance, rather than a power, the term *actus* may be taken to be equivalent, except in connotation, to the term *existence*.) The answer of Toletus and Suárez is a qualified *yes*; the Coimbrans' answer is *no*. But we will see that the difference is not so great as it first appears. For one thing, Toletus and the Coimbrans agree in rejecting the answer given by two 'noble philosophers of the Aristotelian family', to quote the Coimbrans, Duns Scotus and Henry of Ghent. The two noble philosophers' answer was to attribute to matter itself an *actus entitativum* – the Coimbrans gloss the term as 'the thing existing in act' (205). Suárez, for his part, thinks that the Coimbrans, whatever they say, agree with Scotus in substance, and disagree only with the Scotist way of expressing the view.

Toletus

In Toletus' commentary, the question of the mode of existence, or *entitas*, of matter is raised in answering an objection to the claim that matter is substance: namely, that if matter is *pura potentia*, then since substance is *actus*, matter is not substance. Toletus begins with a series of distinctions among *actus*. The only one pertinent

here is between *actus perfectus*, which is that of a complete substance, and *actus imperfectus*, that of each of the components. With that distinction in hand, Toletus concludes first, that matter is not '*in potentia* to every sort of substantial *actus* whatsoever' because if it were it would be nothing at all. But since it is not a complete substance, it does not have an *actus perfectus*, but only an *actus imperfectus*, which, since we are talking about prime matter and not, say, the proximate matter of the human being, can take on any *actus perfectus*. That is a roundabout way of saying it can take on any form. In that sense matter is indeed *pura potentia*, like the sculptor's clay, and like the clay also, it has an *actus* or existence of its own. The import of that claim becomes clear when Toletus briefly argues that, contrary to the opinion of Thomas, matter can, by the absolute power of God, exist without form, precisely because it has not only a distinct essence but a distinct existence.

Coimbra

On the face of it, the Coimbraans disagree. Matter, in their view, has no *actus* or existence of its own; it is *pura potentia*, not just with respect to form but absolutely. But the Coimbraans also agree with Toletus and Suárez – thus departing from Thomas – that matter can exist without form. That, together with their inclusion of matter in the nature of a corporeal substance, makes their position not quite as clear cut as it would seem at first; the combination of views is what leads Suárez to regard their denial of actuality to matter as largely a matter of words.

Their primary argument of behalf of the denial is this: 'if matter were not *pura potentia*, it would either be *actus* alone, or something made up of *actus* and *potentia*; but neither alternative can be maintained', and so matter is *pura potentia*. Taking up the first horn of the dilemma, they argue that every *actus* is either that of form as part of a complete substance or a self-subsistent *actus*, like that of god and the angels. 'Self-subsistent' in this context simply means 'subsistent apart from matter'. It is obvious enough that matter cannot have such an *actus*. As for the other horn of the dilemma, if matter consisted in a composite of *actus* and *potentia*, we would have a matter which was itself composed of two other things, and thus a regress.

Concerning Scotus's position, the Coimbraans write that 'this [...] opinion and way of speaking does not satisfy [us]' (205F). Aristotle knows nothing of *actus entitativus*. Glossing that term as 'the thing existing *in actu*', they argue that 'matter, although it acquires an *actus* of existence, and indeed its own [*actus*], is still not formally the same in every way as [its *actus*], if indeed the existence of each thing is distinct by nature from its essence' (a point they prove elsewhere). The concession here of a proper *actus* to matter will not go unnoticed by Suárez.

The Coimbraans concede a proper *actus* to matter in two other contexts. The first occurs in answering an objection to the claim that 'matter is part of the essence of a natural composite [substance]' (212E). With Durandus, one might ask: how can matter be part of the essence of anything if it is *pura potentia*? Matter so defined is incapable of distinguishing one thing from another, or of having any sort of unity. To that the Coimbraans reply: 'Since matter is something really distinct [*re ipsa differens*] from form, it has its own unity [*its suam habet, sibi que propriam unitatem*], since "being" and "one" are convertible'. Matter doesn't lack unity simply because it is *pura potentia*; unity is common to *actus* and *potentia*. In other words, if matter is one in the composite, where it is actualized, then it is one even when it is only *in potentia* to the composite.

The second concession of an *actus* proper to matter occurs as the Coimbraans are defending the position that matter can exist apart from form. They give the following argument against that position: Matter (you say) is *pura potentia*; its *actus*, therefore is just form; so matter existing actually without form would be an *actus* without *actus*, existence without existence (218A–B). To that they respond with a distinction. Form is the 'substantial' act of matter; but matter when it exists without form has an 'accidental act', so in speaking of matter without form, we are speaking of an accidental act without a substantial act, and in that there is no contradiction. The reply can be clarified with an analogy. Consider the Eucharist: when God ablates the matter of the Host, he conserves the quantity and other accidents of the Host, by substituting his own efficient causation for the material causation that the departed matter had (this claim will be refined in the next section). So too, when God preserves matter without form, he substitutes his own efficient causation for the formal causation of form. Presumably the one miracle is no more difficult than the other.

Suarez

It would seem, then, that in all but name, matter can have an existence of its own, if by that one means existence independently of the 'formal effect of form', which is to give *specific* existence to matter, and to produce a complete substance. So Suárez holds, citing the Coimbraans.⁷ He counters their primary argument with what is essentially the Scotist reply.⁸ The Coimbraans recognize among *actus* only that of the form in the composite, and the self-subsistent act of spiritual substances. That, Suárez says, is insufficient. There is also the entitative *actus*,

⁷ Franciscus Suárez, *Disputationes metaphysicæ* (Hildesheim, 1965). 13§5no3; *Opera omnia*. ed. D. M. André (Paris, 1856) vol 25, 414.

⁸ *Ibid* no5; vol 25, 415

which, since matter is really distinct from form, is distinct from the entitative *actus* of form. Less opaquely: matter must have being on its own if it is really distinct from form, even when it is joined to it in the composite (since God could annihilate the form while preserving the matter); that being is the 'entitative' *actus*. Matter, moreover, cannot be *pura potentia* because it has, after all, certain properties. Matter 'desires' form; it adds a perfection, additional to those added by form, to complete substances, and so forth.⁹ We have, then, an application of the principle that nothing has no properties, that of nothing nothing can be said.¹⁰

Nevertheless – here Suárez agrees with Toletus – matter can be called pure *potentia* with respect to the complete substances it may be part of.¹¹ Indeed, its whole being is simply to receive form: 'for to this it is primarily and *per se* instituted, and thus [...] in its essential defining character [*in sua essentiali ratione*] it includes a transcendentem habitude toward form'. We can therefore say that matter is pure *potentia*, provided that the word 'pure' does not connote the exclusion of all *actus* whatsoever.

The Stakes

All three discussions agree that *actus* may be understood in two ways. One of them – the specifying *actus* of form in the composite – clearly cannot be an *actus* of matter. Matter does not specify anything; it is what gets specified. The other kind of *actus*, that of existence, can be had by matter. The three discussions likewise agree that the whole being of matter consist in being that which can receive form. In short, the essence of matter is *potentia*. Given that much agreement, it may indeed seem that only a way of speaking, as the Coimbrans suggest, is at stake.

There is, however, something more. Just what can be gleaned from two

⁹ It is worth noting also that Suárez, unlike more faithful Thomists, believes that some accidents, notably quantity, inhere in matter itself, even if it is not actualized by form (*Disp.* 14§3no10; *Opera* 25:474).

¹⁰ [...] 'Material, by its nature has a transcendental perfection and goodness [...] For it is certain that the composite of matter and form is more perfect than form alone; and so matter has a perfection, which it adds to the composite. Or again, matter is capable of appetite [i.e. of tendency to form] [...]; and therefore it has by its nature its own perfection: but perfection cannot be understood without actuality, at least transcendental [i.e. abstracting from the categories]' *Disp.* 13§5no9; *Opera* vol. 25, 416.

¹¹ *ibid* no.11; vol. 25:417

passages. The first, from the Coimbrans, stands at the head of their list of arguments purporting to show that matter is not pure *potentia*:

Others [...], having been overcome, like the Manichaeans, by the burden of insanity, have sunk to the point of saying not only that matter is not pure *potentia* but [of saying that it is] pure *actus* itself, that is, God.¹²

The names of such philosophers, they add, do not deserve even to be mentioned. And they don't.

Nevertheless, if you look at the passage from Albertus Magnus that they cite, you will find the name they refuse to mention. It is David of Dinant, a rather shadowy figure whose work was so effectively suppressed after 1210 that fragments of it surfaced only in this century. Here is a passage from the *Quaternula*, which saw print in 1963.¹³ David has been considering whether mind (*mens*) and matter (*yle*) are identical:

With this Plato seems to agree, when he says that the world is God made sensible [i.e., available or perceptible by sense]. For the mind, of which we are speaking, and which we say is one and impassive [impassibilem], is nothing other than God. If, therefore, the world is God himself as well as God being perceptible to sense, as Plato and Zeno and Socrates and many others say, the matter of the world is God himself, while the form which comes to matter is nothing other than that which makes God sensible as himself. [...] It is therefore manifest that there is but one substance, not only of all bodies, but also of all souls, and this is nothing other than God himself.¹⁴

The first thing one wants to say, reading this, is that David of Dinant was Spinoza four and a half centuries premature. It is not clear what exactly what his reasoning was, but it is easy to see why, for some years after 1210, not only David but Aristotle himself fell into disfavor. Better no philosophy than such philosophy.

Such perversities, it seems, were conceptually not so far away, even in the thought of a Jesuit stalwart like Suárez. In a section entitled, 'How pure *potentia* is equivalent to [*æquiparetur*] pure act', Suárez takes up an argument to the effect that prime matter, since it is the thing most distant from God, and since God is pure *actus*, must be pure *potentia*. Distance, Suárez argues, can be understood in two ways: negatively, as between being and nothing, and positively, as between extremes, neither of which is merely the negation of the other. In that sense the North Pole and the South Pole are 'most distant'. Now matter is, as we have seen,

¹² 207C

¹³ David of Dinant. *Quaternulorum fragmenta*. ed. M. Kurdzialek. (Warsaw, 1963).

¹⁴ vol 70, 24-71:4 = f214vb-215ra

certainly not nothing. Nor is it the absence or negation of all perfections, since that is again nothing. Hence:

Although we admit that pure *potentia* stands furthest from [*summe distare*] pure *actus*, it does not follow that pure *potentia* may not include actuality, since the distance in question is not the greatest compared to [the distance of negation], but rather it is between positive [entities]. Thus it requires some agreement [*aliquam convenientiam*] between the extremes in being [*in entitate*], let this agreement be ever so slight [*est illa convenientia minima sit*].¹⁵

The disagreement between Suárez and the Combrans may be more significant than Suárez is willing to admit at first. Prime matter is, in Suárez's view, both wholly potential and wholly actual. It is not actual by virtue of being a composite of matter and form, of course: with respect to the composite it is purely potential. It is actual by virtue of the identity of, and the 'intimate inclusion' of its entitative act in, its essence. Considered among things that are *in potentia*, moreover, it is indeed perfect of its kind (and in that way it can, like all God's creations, be called 'good'). Prime matter and God alone have a pure actuality, that is, an actuality that does not involve any sort of composition, even the 'metaphysical' composition that obtains in finite spiritual substances. That is, perhaps, the 'agreement' Suárez has in mind in the passage quoted above (although it is possible that he may mean only that both God and matter exist). However slight that agreement was, it was enough, it seems to put the Coimbraans in mind of a profound heresy, which, though they could not have foreseen it, lay not only in their distant past but in their near future as well.

Prime Matter and res extensa

Descartes decided quite early that physics, or 'physico-mathematics', should treat only those properties of matter included within the conception of it as extension. In the extant records of his collaboration with Beeckman, it is unclear to what extent the program of physico-mathematics is anti-Aristotelian, rather than simply non-Aristotelian. But already in the *Regulæ* we see Descartes recognizing that in treating matter as actual extension, for example, he is opposing the view of many Aristotelians according to which matter, though naturally endowed with quantity, is thereby only potentially extended.¹⁶ In *Monde*, the matter of his invented world is specifically contrasted with 'that prime Matter of the Philosophers, so thoroughly stripped of all its forms and qualities that there

¹⁵ 13§5no19; vol. 25, 420

¹⁶ *Regulæ* 14; AT x. 447.

remains nothing which can be clearly understood'.¹⁷ The *Principles* argue that those who hold, as the Aristotelians do, that corporeal substance is distinct from extension, either 'mean nothing at all by the word "substance"' or else confusedly think of an immaterial substance to which they then attribute extension – that is, body clearly conceived – as if it were an accident of that substance.¹⁸

The Cartesian definition of matter as *res extensa* is sometimes treated either as a preliminary to the geometrization of physics or as amounting simply to a rejection of secondary qualities on epistemological grounds. Descartes certainly does insist that only a physics in which body is conceived to be *res extensa*, and nothing more, could attain to the certainty of geometric demonstration; the rejection of secondary qualities not only removes from natural philosophy those obscure and confused ideas of sense which cannot serve as the basis for a secure science; it also disqualifies, *a priori*, any explanation that appeals to sensible qualities, as in fact most Aristotelian explanations do. The Cartesian natural philosopher is thus relieved of any obligation to undertake a case-by-case comparison.

Descartes was doubtless moved by such considerations. Nevertheless, a third interpretation of his definition of matter seems to me to capture a more profound aspect of Descartes' departure from the natural philosophy of his teachers, and to point toward a more lasting consequence of his new physics. The Aristotelians, however much they differed on the essence of matter, agreed that its essence includes being *in potentia* to form. As long as that remains – as long as substantial change is thought to be the actualization of matter's indifferent *potentia* to form – the attribution to matter of quantity, or even the characterization of it as 'indeterminate quantity' that we find in Zabarella, does not take one beyond the bounds of Aristotelian physics. Secondary qualities, moreover, might well be reducible, first to temperaments of elemental qualities, and those elemental qualities to tendencies to produce local motion – heat being the power to rarefy, for example. Even the quantification and measurement of qualities, or of 'intensive quantities' like degrees of heat, which we see in Nicole Oresme, and which survives in the graphical representations of motion used by Galileo and Descartes, could have been undertaken within an Aristotelian setting. That the Aristotelians did not dwell on such questions (their disputes on intensive quantity have little to do with what we would think of as empirical physics), that they did not perform experiments to measure intensive quantities, is to be explained, I think, more by reference to the institution in which Aristotelianism was embedded, and to their

¹⁷ *Le Monde* 6; AT xi. 33.

¹⁸ *Principles* 2§9; AT xi/2, 68

aims in pursuing natural philosophy, than to any conceptual obstacle in the physics itself.

What is essential to any Aristotelian physics is the basic scheme of change as the *actus of potentia*, of form as the *actus*, the perfection, of matter. To that scheme the conception of matter as *res extensa* is entirely opposed. *Res extensa* is at each instant entirely actual: length, width, and depth are all that is required for a thing to be substance; form is superfluous. The only potentiality remaining in nature is divisibility. Divisibility, however, is a *potentia* without an end, an a-teleological *potentia*.¹⁹ In Aristotelian physics, the actualization of that *potentia*, or the division of matter into parts having determinate size and figure, is a mere byproduct of genuine physical change, that is, of the perfection of matter by form.

Divisibility, weak as it is, does save Descartes (but not Spinoza) from going so far as David of Dinant. To be divisible entails at least having, as the Aristotelians put it, 'substantial entitative parts', parts whose existence is independent of the whole and of each other. (I return to this point below.) To have such parts is an imperfection, in the following sense: in principle, at least, one such part could be preserved and the rest annihilated, and thus the whole of which they are parts could be destroyed. God, therefore, cannot be divisible, and cannot be the matter of this world.

2. Real Accidents

The doctrine of 'real accidents', according to which the whiteness of bread, for example, could subsist even if the substance of the bread were annihilated, was the target of more than one Cartesian jibe.²⁰ The Coimbraers themselves state the

¹⁹ Divisibility (as the suffix '-ible' indicates) is a *potentia* in a broad sense (i.e., one in which there is no connotation of propensity or fitness; among the Aristotelians you find talk of '*potentia logica*', for example, meaning logical possibility, where there is no suggestion of any *tendency* for what is logically possible to occur). But the divisibility of quantified matter has no role in Aristotelian physical explanation except as a condition of possibility for natural change (e.g., corruption, when the body falls apart). Thus for Descartes, divisibility, the only quality of *res extensa* that even *looks* like an Aristotelian *potentia* (I'm setting aside the complicated question of force), is admissible just because it is, from the Aristotelian standpoint, not the sort of quality that would be appealed to in efficient or final causal explanation. In that sense, it is a- (or non-) teleological.

²⁰ 'It is of no use for them to say that this heaviness is not a substance; for truly they conceive of it in the likeness of substance, insofar as they judge it to be real, and that by some power (namely, Divine power) it can exist apart from the stone' (To Arnauld,

obvious objection. God, they write, 'cannot deprive things of their natures'. But 'the nature of an accident would be removed from it, if it cohered by itself outside a subject'.²¹ Aristotle teaches that 'the *esse* of accidents is *inesse*, and accidents are by their nature beings of something else, namely, of substance, just as substance is being *per se*'. Substance would no longer be substance, were it to inhere in another; and accidents would no longer be accidents if they did not.

Relinquish so basic a distinction, and chaos, it seems, must follow. Accidents outside substances would deceive the senses, and could not fulfill their ordained role of signifying substance to the senses; separated from matter, they would have no boundaries, and would acquire a boundlessness akin to that of spiritual substances; they would no longer be singulars, but would resemble the Platonic ideas that Aristotle rejects; and finally, since it is less repugnant to suppose a subject without accidents than to suppose an accident without a subject, there could be, literally a man without qualities, even those that 'certainly, as if by inevitable birth, issue forth from [his] nature.'²²

The context of these remarks is a series of questions on alteration, based ostensibly on Aristotle's discussion of alteration in *De generatione et corruptione* Book 1, ch. 4, but in fact using that chapter as a pretext to defend the Thomist theory of transubstantiation. In the first of the series, the Coimbrans establish that the subject of inherence of accidents in corporeal substances is, for quantity, matter actualized by form, and for all other accidents, matter by way of quantity (*interventu quantitatis*). Matter must be actualized by form to receive any accident because it itself is *pura potentia*; the interposition of quantity is argued in a variety of ways, notably by appealing to the theological doctrine that after transubstantiation the accidents of the Host, other than its quantity, inhere in its quantity, which for its part inheres in nothing.²³

In the second question in the series, the Coimbrans argue that, in certain cases an accident originally inhering in one subject can, by divine power, be made to inhere in another. More precisely:

- (i) No accident that is not really distinct from its subject can inhere in another. Figure, for example, since it is 'idem re' (the same thing) as its

29 Jul 1648; AT 5:223). See also the Fourth Replies, esp. AT vii. 252–253.

²¹ *In de Gen.* 1c4q6a1; 72.

²² *Ibid.*, 73.

²³ 1c4q4; 59

quantity, cannot be transferred to another quantity.

(ii) Any material accident can, by divine power, be transferred to a new material subject; any immaterial accident can exist in another immaterial *or* material subject. If it is transferred to a material subject, it must inhere in it 'indivisibly' – that is, in a point. It cannot exist in an extended part and thereby itself become extended (as whiteness, say, becomes extended, by virtue of the quantity of the bread).

(iii) Quantity and all accidents 'idem re' with quantity, such as figure, cannot be transferred to an immaterial subject. The primary argument is that it is essential to quantity that it be at least potentially extended; but then the subject in which it inheres must be capable of extension – it must have 'substantial entitative parts', or, in other words, parts that can exist separately as substances in their own right. Actually extended quantity requires such parts because extension consists, as the slogan has it, in having 'parts outside of parts.' 'Outside', applied to parts, requires something like a real distinction between them; immaterial substances have no such parts.

(iv) All other accidents, including, presumably, sensible qualities, though this is not clearly spelled out, can inhere, by divine power, in immaterial subjects. A mind, on this account, could literally be hot, a thought could literally be red.

Two things are worth nothing. First, the primary argument for (ii) (and, according to the Coimbrans, also for (iv), though I don't see exactly how) consists in noting that God can bring it about that an accident should exist *extra subjectum*. This they do not prove until the next question. The rest of the argument is that if it is not incoherent to suppose that an accident can exist outside *any* subject, then it is not incoherent either to suppose that it can exist in *another* subject. (I am reminded here, unfortunately, of the Red Queen, who could believe six impossible things before breakfast. No doubt the first was the hardest; once that was firmly grasped, the other five would follow.)

Second, the exception noted in (i), together with Descartes' view that quantity and the thing quantified differ only in reason, and not *in re*, entail that neither quantity nor figure can be transferred from one subject to another. Hence if the matter of the Host is annihilated and replaced by Christ's body, *none* of the accidents of the Host can remain – its only accidents are extension and its modes. The best Descartes can do to preserve the Thomist account is to show that the Host

could be annihilated and replaced, and yet still affect the senses in just the same way. In his response to Arnauld, Descartes hedges: 'I affirm planely and believe that God can do many things that we are incapable of understanding.'²⁴ But he goes on to show that the conversion of the Host could occur while leaving the surface of the Host exactly as it was (that is, exactly similar, not numerically identical), and so, since bodies affect our senses only by way of their surfaces, it would look and feel and taste the same. Hence, he notes, after quoting the judgment of the Council of Trent, 'I do not see what one could understand by 'the species of the bread', except that surface which is a medium between its particles and the bodies around it.'²⁵

I come now to the third question in the Coimbrans' series, the question on real accidents. It is certain, the Coimbrans hold, that 'by God's power' (but not, *pace* Avicbron, by any natural power) accidents can 'be conserved outside a subject'.²⁶ Citing a wide range of authorities, including the Council of Trent, Patristic authors, and Thomas, they end the statement of their position with a flourish:

[By these authorities] are refuted and convicted Vuithelopus and Oecolampadius, and others of the same stripe who have boldly opposed the truth of the proposed conclusion, telling us when we assert that accidents can be divinely conserved outside subjects, that the nature of things has been so ordained by God that if substances are removed, accidents must be destroyed and reduced to nothing: Surely these [philosophers], while they wish to be nature's patrons, become deserters of truth, and do an injury to God himself, the prince of nature and the author of all things, when thus they subject God to the decrees of nature, so that (as they contend) nothing can be done by him that exceeds the usual course of things.²⁷

Following Thomas, the Coimbrans argue that, because God's power is infinite, he can accomplish without the need of second causes whatever can be accomplished with them, with one exception. The effects of the material cause – the matter of the composite – and of the formal cause – the form of the composite – cannot, in their constitution of the complete composite substance be substituted. God cannot take the place of either the matter of a thing, or its form. He can substitute his activity only for those causes which 'by physical necessity only [and not absolutely] are

²⁴ AT vii. 249.

²⁵ *Ibid*, 251.

²⁶ *In de Gen.* 1c4q6a2, title; 73.

²⁷ 1c4q6a2; 74

required.²⁸ God can, therefore, cause a human being to be formed without seed, or fire to be made in the absence of fire, or – to come to the case at hand – accidents to be sustained in the absence of their material cause, that is, the subject they would normally inhere in.

In answer to the objection raised at the beginning of this section, the Coimbrans, like Suárez and Fonseca, argue that actual inherence is not the essence of accidents. Rather an accident is 'that which, according to the ordinary law of nature is suited, not to exist by itself, but to inhere in another.'²⁹ When it exists outside a subject it does not give up its nature and take on that of substance. If it is said to 'imitate substance', this is because like substance, it 'persists by itself, without being sustained [*fultum*] by a substance in which it would inhere.'³⁰

I have said enough, no doubt, to try the patience of readers more tolerant than Descartes. I conclude this section with a remark on the implications of the doctrine of real accidents for conceptions of substance and accident generally.

In the notion of substance, as is well known, two ideas have long been entwined. One is that there are ultimate subjects of predication, of which other things may be predicated but which are themselves predicable of nothing. The other is that some things depend for their existence – the precise sense of 'depends' needing to be spelled out – on others, and some do not. There is a strong tendency to unite the two ideas by taking 'depends' and the relation signified by predication to be the same. In the *Principles*, where substance and mode play the roles of substance and accident, there can be no mode which is not actually predicable of a substance; conversely, whatever is not actually predicated of a substance must itself be a substance. The very idea of a thing that, though 'suited, according to the ordinary law of nature' to inhere in another, in fact does not, is incoherent. So Descartes writes in his response to Arnauld that 'the human mind cannot think that the accidents of the bread are real and yet exist without their substance, unless at the same time it conceives them in the mode of substance.'³¹ Given the dedicated attempts of Suárez, the Coimbrans, Fonseca and many others to do what Descartes says *cannot* be done, the remark must have taken aback some of his contemporaries.

²⁸ Ibid, 75.

²⁹ 1c4q6a3; 76–77. Cf.

³⁰ Ibid.

³¹ AT vii. 253.

Taking into account Descartes' definitions of the real and modal distinctions, the point can be put more tellingly. There are no facts by which to distinguish substances from modes except facts of the form: by God's absolute power, *X* can (or cannot) exist without *Y*. Those facts alone determine whether a thing exists in the manner of a substance or in the manner of a mode. For the Aristotelian, on the other hand, there is more to be said. The whiteness of the Host can, by God's power subsist apart from the Host, and so too the Host can exist apart from its whiteness. The whiteness, in fact, can exist apart from all other finite things. It 'imitates' substance; by Descartes' definition, it *is* substance, whatever the theologians might say. But for the Aristotelian something else enters into the account: namely, that 'according to the ordinary law of nature' whiteness is not suited to exist by itself. It has, as part of its nature, an 'aptitude' toward a subject, which may or may not be fulfilled, just as a human being may or may not learn to speak. That aptitude, and not actual inherence or subsistence *per se*, is what makes it an accident.

To be an accident, then, rather than a substance or a mere mode (in the Aristotelian sense) like figure, is to occupy a certain rung on the ladder of perfection that runs from matter, *pura potentia*, to God, *purus actus*. Accidents, because their nature includes an aptitude to inhere in a subject, are inferior both to the incomplete substances – form and matter – that include an aptitude toward each other, but not in the mode of inherence, and to complete material substances; those are in turn inferior to spiritual substances, which are simple, and whose forms do not have any aptitude toward matter.

3. Conclusion

Descartes was not mistaken when he took the Coimbra commentaries to represent the position of the 'grande Societé'. They are, as their title pages indicate, a corporate production: of the Collegium Conimbricensis, of the Societas Jesu. Though no work would pass judgment by the Office of the Holy Inquisition if it contained anything 'repugnant to Faith or good morals',³² the Coimbra commentaries, like the Complutensian commentaries of the Carmelites, had the special burden of representing the group under whose name they were published, not indirectly through an individual who could be repudiated, but directly.

In such a work one does not expect surprises. The occasional expressions of a personal point of view that one sees here and there in Toletus or Suárez, or the novel, and therefore untested, systematizations of metaphysics and psychology undertaken by authors like Suárez and Arriaga, will not be found. The closest that

³² *In de Gen.*, 'Judicium'

their author comes to revealing himself is in the heightened tone of certain passages – the diatribe against the unnameable David of Dinant, the scorn heaped on those who would subject God to nature's laws – , and in his sensitivity to the Manichaeic positions, as if he were fighting some of Augustine's battles again.

What one finds instead is a Latinity purged of Scholastic barbarities (as the humanists called them), a clear ordering within each question of the authorities and arguments on each side, the inclusion of *recentiores* like Vesalius, Fernel, and Ficino, and occasionally the arrangement of questions into brief treatises, reminiscent on the one hand of some of Thomas's collections of disputed questions, and on the other of the much more thoroughgoing restructuring of the materials of metaphysics by Suárez. The commentaries impress the reader with their erudition, but in the period that was commonplace. What strikes me more, when I compare the Coimbra's work with that of, say, Buridan, Zabarella, or the later Jesuit textbook of Arriaga, is its readability. Goes may get bogged down in logical murk (it was Fonseca, after all, who wrote the logic commentary), but the brevity of his articles, which seldom run more than a few pages, ensures that there will not be long stretches of unparagraphed text that fatigue the eye, or multiple bouts of reply, counter-reply, and counter-counter-reply that strain the memory. If Aristotelianism could have been renewed, here was its best opportunity. Here, too, one supposes, was a model for the young Descartes.

Philosophically, the commentaries offer what one might prematurely call an enlightened Aristotelianism. After arguing, against Aristotle, that the female concurs actively in generation, the Coimbra's write that to follow the 'prejudged authority', even of one who like Aristotle 'excels in ingenuity' at the expense of truth is 'most alien' to a 'true Philosopher.' For that reason,

we have perforce in this controversy, as in some of those that we engage in below, to leave Aristotle behind, in cases where experience has persuaded us to do so, and especially [the experience] of the art of anatomy, which after Aristotle's time was more vigorous and more familiar.³³

Aristotle is an authority, he is *the* Philosopher; the presumption is in his favor, but it is only a presumption. It can be overruled by faith or by experience. Even if, considering the Coimbra's overall adherence to their authorities and the apologetic aim of their project, one takes the declaration to be little more than lip service (as many seventeenth-century critics of Aristotelianism did), still the invocation of experience, and the assurance that we – that is, philosophers in the age of Fernel, Vesalius, Valles, and other *recentiores* – are capable of advancing beyond Aristotle and Thomas, places the Coimbra's, not certainly at the forward edge, but in the solid middle, of the philosophical Renaissance.

³³ *In de Gen.* 1c4q27a2; 194. Cf. Fonseca *In met.*, 7c2q1§2-3; 3:198-201.

I am not sure, finally, that 'Descartes and Coimbra', in the sense in which that would be usefully contrasted with 'Descartes and Suárez', or 'Descartes and Rubio', is a fruitful object of study. It is one thing to take the Coimbra commentaries to represent an updated Thomism, and Descartes to be responding to that rather vaguely characterized phenomenon; another to try to dissect out specifically Coimbran components in his philosophy or his version of 'the Philosophers'. Descartes seems to have paid little attention to those categories, his fixation on the Jesuits aside; it is not clear that we will benefit by treating him as if he did. Perhaps the best guide lies not in textual correspondences or hypotheses about what he may have read and what of that retained, but rather in the reception of his philosophy. Was he, in other words, apprehended by contemporaries as slanting toward the Thomists, or against the Scotists? It is, of course, possible for a debt or a *parti pris* to go unnoticed or unmentioned. Descartes, in any case, did not advertise his debts, and like the Philosophers themselves, he mostly left his opponents unnamed. Yet it would be odd if his leanings (or even his leanings mistakenly perceived) should have escaped those who were well attuned to such things, like Arnauld. My hunch is that Descartes, in whose philosophy so many of the old questions become moot, was not apprehended in that way. He was, in that sense, just what he hoped to be: no longer Aristotelian.