19 *Descartes on Anti-individualism*

In 'Cartesian Error and the Objectivity of Perception'[1], I made what I now regard as an important mistake in the interpretation of Descartes. I construed him as an individualist about thoughts. In this paper I would like to explain why this construal is at best doubtful. I would also like to use the occasion to explore Descartes's views of mental substances and mental attributes, and about reference to the physical world.

Individualism is the view that the individuation of all an individual's mental states and events does not depend in any way on relations the individual bears to a wider environment. As noted, I interpreted Descartes to be an individualist. I interpreted him as holding that the individuation of all mental states and events—or at least, all thoughts—was independent of any relations to a wider environment, prototypically, the physical environment. I realized this mistake shortly after making it, and signaled my awareness of it in a subsequent paper.[2] But I did not explain in any detail why I had changed my mind. I would like to do better here.

I took Descartes to be an individualist on the basis of two considerations. One was his elaboration of the Demon thought experiment in *Meditation* I. That thought experiment presumes that one might have the thoughts that one has even if there were no physical world at all. So it presumes that one's thoughts are what they are independently of any relations to the physical world. The second consideration derived from Descartes's substance dualism. It seemed to me that insofar as he thought that minds are substances whose existence and nature are

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[1] Cf. 'Cartesian Error and the Objectivity of Perception', in P. Pettit and J. McDowell (eds.), *Subject, Thought, and Context* (New York: Oxford University Press, 1986) (Ch. 7 above).

[2] Cf. 'Individualism and Self-Knowledge', *The Journal of Philosophy*, 85 (1988), 649–663, note 4.

independent of any physical reality, he had to think that thoughts were also thus independent.

The first consideration is relatively easy to undermine, at least as it stands. What is individualistic in Descartes is the presentation of the demon thought experiment in *Meditation* I. What I said in 'Cartesian Error and the Objectivity of Perception' about individualistic intuitions that might be drawn from that thought experiment—my criticism of moving without argument from knowledge of one's actual thoughts to knowledge of what one's thoughts would be in counterfactual situations—still seems to me right and to the point. This invalid transition is easy to fall for. It has seduced others. Descartes himself blurs the distinction between self-knowledge and metaphysical knowledge, in such a way as to encourage the transition.

Nevertheless, my attribution of individualism to Descartes was badly grounded. Descartes holds that the thought experiment of *Meditation* I is not ultimately coherent. God is invoked as a necessary principle for making our intentional mental contents (ideas) conform to basic natures in the objective world. This is to give God a role prima facie analogous to the role of causal history and evolutionary design in determining contents. The general caste of Descartes' account appears in many ways congenial to anti-individualism.

Whether Descartes is an anti-individualist, however, is complex and not completely clear. Descartes does not say much about the individuation of mental states. For that matter, he says little about the individuation of minds or of physical objects. I want to explain why the issue is interpretatively complex.

I

Individualism is consistent with Descartes's claim that God insures that our clear and distinct ideas apply to objective natures. If one held that there are no individuation conditions on what it is to have a given idea of an objective nature that make reference to anything outside the mind, one could regard God's role as simply to insure that the ideas that we have always correspond to objective natures. For example, one could hold that what it is to have an idea requires that no further explanatory conditions be met. God's necessarily making a match between the world and ideas so conceived would *not* entail that there are anti-individualist conditions on the individuation of thoughts. It would entail only that there is a necessary match between our ideas and their objects. Necessity is one thing. Individuation is a further thing. The appeal to God's veracity is congenial to anti-individualism, but does not entail it.

Descartes also has a causal principle: There must be as much reality, 'formally', in the cause as there is in the effect. The principle requires that the *objective reality* (roughly the representational content) of an idea be caused by something whose *formal reality* (roughly, intrinsic reality of the object or referent) is as

much or greater than the reality purportedly represented by the idea.[3] Descartes may understand degrees of reality in terms of explanatory priority.[4] The principle would require that the representational nature of an idea of a rock be explained in terms of a cause which has an ontological status at least equal to that of a rock. Thus a rock would do.

In its focus on explanation, this principle is closer to bearing on individuation conditions than the invocation of God's veracity. But the principle is too weak to entail anti-individualism. The finite thinker will have an ontological status sufficient to explain the objective reality of all the thinker's ideas except for the idea of God (for which God must be invoked, according to Descartes's ontological argument). It is consistent with the principle, stated in the abstract, that the mind can be the explanatory basis for all its own ideas. So the principle is again consistent with individualistic individuation conditions for objectively and empirically referring ideas.[5]

It appears to me, however, that the main drift of Descartes's reasoning is to explain the representational nature of one's ideas in terms of the objects that those ideas represent. The appeal to God's veracity seems to function as a guarantee that this natural direction of explanation, especially for reference to objects in the physical world, can be relied upon, as long as we as thinkers avoid invoking materially false or confused ideas.[6]

For example, consider this passage from *Meditation* III:

> And although the reality which I am considering in my ideas is merely objective reality, I must not on that account suppose that the same reality need not exist formally in the causes of my ideas, but that it is enough for it to be present in them objectively. For just as the objective mode of being belongs to ideas by their very nature, so the formal mode of being belongs to the causes of ideas—or at least the first and most important ones—by *their* very nature. And although one idea may perhaps originate from another, there cannot be an infinite regress here; eventually

[3] René Descartes, *Meditations*, III, in *The Philosophical Writings of Descartes*, II, trans. J. Cottingham, R. Stoothoff, and D. Murdoch (Cambridge: Cambridge University Press, 1984), 28, and in *Œuvres de Descartes*, ed. Ch. Adam and P. Tannery (Paris: CNRS, 1964–76), henceforth AT, VII, 40–41.

[4] Cf. Calvin Normore, 'Meaning and Objective Being: Descartes and His Sources', in Amélie Rorty (ed.), *Essays on Descartes' Meditations* (Berkeley: University of California Press, 1986).

[5] I have one caveat about Normore's presentation of Descartes on these matters. Normore reads Descartes as an externalist 'in the sense that the content of our ideas depends on their causes—but on the cause of the objective reality of the idea not the cause of its formal reality'. It is not sufficient to be an anti-individualist (or externalist) that one hold that the content of our ideas depends on their causes. One needs the further points that the causes are external to the individual and that the dependence is individuative, not merely causal.

[6] I read *Meditations* III and VI as illustrating this drift. I think that this issue in interpreting Descartes is worth further investigation. I have benefited from several conversations with Normore in my remarks about Descartes. Normore recommends further reflection on God's creation of real possible natures. God's idea and the natures are created in the same act. Nevertheless, Normore sees Descartes, here as elsewhere, as tending to take the nature that the idea refers to as explanatorily prior to the idea.

one must reach a primary idea, the cause of which will be like an archetype which contains formally all the reality which is present only objectively in the idea.[7]

The phrase 'same reality' and the causal account of the objective reality (or intentional content) of ideas seem distinctly anti-individualist in spirit. Our ideas of objective physical space, for example, seem to be explained in terms of our being causally related to spatial shapes.[8]

When Descartes discusses the material truth or falsity of ideas, he may appear to individuate ideas independently of objects with formal reality that are independent of the mind. He claims that the idea of a chimera is no more a false idea than the idea of a goat. He notes that it is just as true that he imagines the one as the other. To be a false idea is to be an idea that represents a non-thing as a thing. Thus it appears that Descartes believes that the idea of a chimera does not in itself represent something as real that is not real. In any case, Descartes believes that 'there can be no ideas which are not as it were of things'. This 'as it were' is not easy to interpret. But I think that Descartes means that all ideas are representational, they have representational content, even though not all ideas represent (refer to a real referent)—and even though not all ideas that do not refer to a real referent represent something as real. I take it that he means that chimera and illusory dagger do not purport to represent something real, even though they are representational.[9]

Anti-individualism does not require that all ideas that are individuated in terms of a wider environment in fact refer to anything in the wider environment. Many ideas obtain their representational content by being related (by theory, construction, amalgamation, or other means) to other ideas that do refer to elements in the environment. Both types of ideas derive their content partly through causal or other non-representational relations to the environment. Descartes's development of the early stages of scepticism in *Meditation* I shows that he has a masterful sense of the variety of ways in which an idea can be dependent for its representational meaning or content on a wider environment, without succeeding in referring to anything (real) in the environment. The failure of some ideas to

[7] Descartes, *Meditations*, III, in *Philosophical Writings of Descartes*, II, 29; AT, VII, 41–42. I am indebted to Calvin Normore for discussion of this passage and other passages in Descartes's interchange with Arnauld in the fourth set of Objections and Replies. The essay as a whole has benefited from several conversations with him and with Deborah Brown.

[8] A similar line of thought occurs in his discussion of the perception of color. In *Principles*, I, 70, Descartes writes:

> It is clear, then, that when we say that we perceive colours in objects, this is really just the same as saying that we perceive something in the objects whose nature we do not know, but which produces in us a certain very clear and vivid sensation which we call the sensation of colour.

Descartes insists that it would be an error to judge that color had a particular *nature* on the basis of its being perceived as color. His account, however, does not question that the sensation is of color, or that its being a sensation of color depends on its having a cause external to the individual.

[9] *Meditations*, III; AT VII, 37, 43–44.

refer does not show that all ideas, or even that those non-referring ideas, do not owe their representational meaning or content to some ideas that refer to things in the wider environment—things that tend to cause those ideas. Descartes's rejection of the Demon hypothesis as being impossible or incoherent is, I think, associated with his view that all ideas, including non-referring ones, owe their representational content to things beyond them—things that cause at least some ideas which are successfully referential.

Since Descartes does not explicitly discuss individuation conditions of ideas, my anti-individualist reading requires some judgment. Still, I take the spirit of Descartes's work to be broadly anti-individualist.

In my formulation of individualism in 'Cartesian Error and the Objectivity of Perception', I indicated some awareness of these issues. I explicitly excluded appeals to God as means of preventing one from being an individualist.[10] I do think that there are serious difficulties with Descartes's invocation of theology to guarantee clear and distinct ideas in his account of veridicality and content determination. The appeal is not only epistemically tenuous. I think that it, together with his extreme reductionist conception of physical reality, may have led him to underrate how large a role mundane, empirical, macro-objects and properties play in content determination.

On the other hand, no historically sensitive account of early modern rationalist views can afford to bracket the role of God. I believe that my indulging in such bracketing led to under-rating anti-individualist elements in Descartes. I have come to think that there were fewer individualists prior to the twentieth century than I had formerly supposed. Despite the new science criticism of Aristotelian metaphysics and of commonsense epistemology by nearly all the great early modern figures, the enormous influence of the anti-individualism of Aristotle carries deeply into the early modern period.

II

The second consideration that led me to my misinterpretation of Descartes concerns his dualism. Issues surrounding this consideration seem to me very complex. What needs to be explored is how individuation of mental states in terms of relations to objects outside the individual's mind is to be squared with Descartes's strong form of dualism. Anti-individualism limits the metaphysical independence of mental states and events from the non-mental. But Descartes's view of mind, as a substance whose principal essential attribute is thought,

[10] I wrote, 'Individualism is the view that an individual person or animal's mental state or event kinds ... can in principle be individuated in complete independence of the natures of empirical objects, properties, or relations (excepting those in the individual's own body ...)—and similarly do not depend essentially on the natures of the minds or activities of other (*non-divine*) individuals' (my retrospective emphasis). Cf. 'Cartesian Error and the Objectivity of Perception', 193 above.

is prima facie incompatible with ontological dependence of mind on the non-mental. For finite substances are independent for their existence and nature of anything else except God.

Insofar as Descartes is not an individualist, he must have reconciled these views by holding that mental states and events that are about body are not *essential* to any given mind, or to being a mind.[11] Mental events about body are for him *modes* of mind (contingent properties). Such mental events are not *attributes* (necessary ones). (A *principal attribute* is an attribute that is constitutive of the entity's nature or essence and explains other attributes.) Anti-individualism does not itself maintain that to have a mind, one must have thoughts about body. It claims that, as a matter of individuation, to have certain thoughts, including specific ideas of body, one must be in causal relations to a wider environment. It is open to Descartes to agree that particular thoughts about body and even having innate ideas like that of extension, are metaphysically dependent on their non-mental objects, without conceding that mind itself is thus dependent. So although this sort of reconciliation involves, to be sure, other difficulties, it does make Cartesian dualism prima facie compatible with anti-individualism.

Of course, conceding to anti-individualism that thoughts of body are dependent for their natures not only on mind but on body opens a view of Cartesian dualism that is different from the common construal of it. On such a position, some particular thoughts, which Descartes would count as modes of a mind, are necessarily dependent on physical properties. So not just aspects of sensation and imagination, but even aspects of some acts of intellection are, on this position, explanatorily dependent on body. Aside from God, only mental substances (particular minds) and mental attributes derivative from the principal mental attribute (the attribute, thinking) seem to be completely independent of physical substances.

It is important to see how far the exclusion of ideas of body from essential attributes of mind might extend in the Cartesian scheme, if it is to be anti-individualistic. For Descartes, the basic idea of body is the idea of extension. Extension, considered in abstraction from actual matter, is supposed to be the fundamental idea in geometry. Geometry is not, according to Descartes, about corporeal extension. It does not depend epistemically on perception of the physical world. It is not committed to the existence of corporeal substance.

[11] God's mental events are special and may not be subject to anti-individualist considerations. The objects of God's mind depend on his creating them through his thinking them. See, however, note 4. Moreover, I will assume that Descartes's holding that a human mind's idea of God depends on the existence of God is not incompatible with his substance dualism, since no finite substance is completely independent of God. Similarly, I assume that the fact that Descartes holds that God could bring about anything, including the falsity of eternal truths, does not show that Descartes was an individualist. Even though he thinks that relations between having ideas about body and being in relation to the physical environment is, in this sense, contingent, I take the issue to remain alive. If anti-individualist principles were, like mathematical truths, necessary except for the qualification about God's power, then I would regard Descartes as an anti-individualist. I owe this point to Carl G. Anderson.

Descartes seems, however, to think that the shapes studied in geometry are not ontologically independent of possible or actual shapes that can be instantiated in corporeal substance. Descartes's view, like most early modern views about why geometry applies to actual physical space, depends on the claim that such shapes are essentially *possible* modes of matter, studied independently of whether they are actually instantiated. This dependence on possible modes of matter is, I think, an ontological dependence. Ontology in the early modern period was probably more centrally concerned with possibility than with actuality. So the objects of geometry are not ontologically independent of corporeal substance, in Descartes's view. An anti-individualist account of ideas and thoughts about geometric shapes would be committed to some dependency relation between the abstract shapes (the objects of geometrical reasoning) and having those ideas. If such objects of geometrical reasoning, the shapes, are not ontologically independent of (corporeal) extension, then thoughts and ideas about them are not ontologically independent either. If this line of reasoning is correct, Descartes should hold that having geometrical ideas is inessential to being a thinking mind.

What of arithmetical ideas, ideas of number? These, unlike geometrical ideas, Descartes does not associate essentially with physical substances or properties. He classes them with substance, duration, and order as 'items that extend to all classes of things'.[12] Ideas of number are independent of what they are applied to in counting (*Principles of Philosophy*, I, 55, 58.) It follows that they are independent of geometrical ideas. They would also not depend on some relation to space or physical reality to be what they are, inasmuch as they have a universal application.

I find this interesting. Despite his discovery of analytic geometry and his sophisticated use of algebra, Descartes joined the tradition, dominant since the Greek mathematicians, that held that geometry is more basic than arithmetic or algebra. Geometry was supposed to be the foundation of mathematics. (I shall return to this point in Section III.) But the exact sense in which it is foundational is important for our purposes. Descartes regarded proofs in geometry as necessary epistemic bases for some beliefs about number—for example, belief in the real numbers. But it is unclear to me how far this epistemic dependence was supposed to extend. It seems clear, however, that Descartes did not hold, as many mathematicians in his day did, that number is ontologically grounded in geometric proportions. As Frege noted, number, unlike geometrical lines and shapes, is applicable to all things (through sortals)—so to thoughts as well as bodies. Descartes seems to have anticipated this insight, although he would not have joined Frege in regarding numbers as among the commitments of logic or

[12] Cf. *Principles of Philosophy*, I, 48. Descartes also mentions common notions that apply cross-categorially in *Rules for the Direction of the Mind*, AT X, 419; in *The Philosophical Writings of Descartes*, I, trans. J. Cottingham, R. Stoothoff, and D. Murdoch (Cambridge: Cambridge University Press, 1984), 45. In the *Rules* passage, Descartes mentions existence, unity, duration as, common notions that are attributed 'indifferently, now to corporeal things, now to spirits'.

as being abstract, mind-independent objects. In any case, I think that Descartes, as anti-individualist, was free to regard the idea of number as essential to mind.

If ideas of both body and geometrical shape are inessential to mind, what remains? One could imagine a view that *no* particular thought- or idea-*types* are necessary for mind, as long as the mind has some thoughts and ideas. On this view, all specific intentional (or in Descartes's terminology, 'objective') content is contingent with respect to mind and minds.

Two versions of the position can be distinguished here. One is that the representational content (for Descartes, objective reality) of particular thoughts could be different while those thoughts as events (their 'formal reality')—and by extension the mind—remained the same. I think that, as a substantive view, this position is incoherent. Our only individuative grip on the identity of particular thoughts involves their intentional or representational content—primarily the concepts with which the thoughts represent referents.

The other version of the position is as follows. Although particular thoughts would be different if their contents were different, the mind is metaphysically independent for its identity not only from the identity of any particular thought events, but also from having any particular thought contents or idea-types. That is, there are *no* particular idea-types that a mind must have in order to be a mind. I will come back to the question of what the identity of mind would then consist in. But it would have to consist in something (perhaps a field of consciousness and some type of thinking or other) that is what it is independently of the content of any particular mental activity or process. For all particular thoughts, and all particular types of intentional content, would be contingent modes of a mind.

This second version holds that thinking is necessary to being a mind. It holds that it is not necessary that any particular kinds of thoughts be thought. And it holds that it is not necessary that a mind have any particular idea-types or concepts. This view simply denies that there are any thoughts, ideas, or concepts that are constitutively necessary and universal to all thinking minds. This is an interesting view, not obviously false, I think. Aristotle and Kant represent a tradition of maintaining that there are fundamental, universal categories of all thought. Their lists, which include a number of traditional metaphysical notions, have not persuaded many. There remains for some an inclination to think that having a few simple logical notions associated with negation, conjunction, and implication, perhaps simple arithmetical ideas, is necessary to being a thinking mind. I share such an inclination. Justifying it, however, is a difficult matter. Such a view must confront the variety of different 'non-standard' logics and the apparent possibility of taking different connectives as fundamental even within classical logic. As regards arithmetical notions, one must explain why thinking cannot proceed without sortals and counting, and getting by with mass concepts and notions of more and less.

I doubt that either of the positions just outlined is Descartes's. I believe it likely that Descartes held instead that having available to reflection the innate ideas thought and God is essential to being a mind. I think that Descartes

believed that from the idea of thought (or mind) or of God, other ideas, such as those of objective reality and cause (and perhaps substance, number, order, duration) can be derived by reflection. I conjecture that knowledge associated with the *cogito* and the ontological argument are thought by Descartes to be necessarily available to any thinking mind. If he is an anti-individualist as well as a substance dualist, however, I think that he must hold that thoughts about the material world and about geometrical shapes are, though central to our actual mental histories, not essential to being a mind.

The view that thoughts and knowledge of mind and of God are more basic—in the sense of necessarily more fundamental to the essence of any thinking mind—than thoughts and knowledge of body and mathematics is, of course, deeply un-Kantian. As an account of all thinking minds, I find such a view unacceptable. Thoughts about thought, let alone thoughts about God, seem absent from some minds—the minds of animals and young children—that nevertheless think about body and can engage in simple counting.

On the other hand, I think that the closely related question whether thoughts of mind are *conceptually independent* of thoughts of body—and the question whether knowledge of mind is conceptually independent of knowledge of body—are more complicated than most neo-Kantian, post-Strawsonian discussion has suggested.

I have been discussing Descartes's dualist view of *mind* in the context of anti-individualism. I want to consider now his dualist view of *particular minds* in the same context. Descartes claims that one cannot conceive of mental substance without its principal attribute, thinking. As we have seen, this principal attribute must be regarded as independent of any particular thought events. What are particular minds for Descartes? And what more can be said about the principal attribute of minds?

If one regards the principal attribute, thinking, as a generic essence common to all minds, one must ask what individuates particular minds. I think that there is no evidence that Descartes thought of mental substances as immaterial 'soul stuff'. Understanding immaterial substances on such a model is in effect to treat them as material and immaterial at the same time. Such a view misses what is special about mind, and part of what is interesting about Descartes's dualism. Descartes's mental substances are not, I think, best construed as distinguished by a special kind of constitution or stuff.

There is reason to believe that Descartes saw the principal attribute of a mental substance as not (or not merely) generic and common to all mental substances, but as particular and concrete. Thus in a late letter to Arnauld, he writes:

> I tried to remove the ambiguity of the word 'thought' in articles 63 and 64 of the first part of the *Principles*. Just as extension, which constitutes the nature of body, differs greatly from the various shapes or modes of extension which it may assume, so thought, or a thinking nature, which I think contributes the essence of human mind, is far different from any particular act of thinking. It depends on the mind

itself whether it produces this or that particular act of thinking, but not that it is a thinking thing; just as it depends on a flame, as an efficient cause, whether it turns to this side or that, but not that it is an extended substance. So by 'thought' I do not mean some universal which includes all modes of thinking, but a particular nature, which takes on those modes, just as extension is a nature that takes on all shapes.[13]

I will discuss two issues raised by this passage.

First, the last sentence of the passage suggests that thinking is a nature that is particularized in the individual mind. Yet, in its particularity, it is seen as independent of any particular act of thinking. What could thinking be, so understood? It seems clear that thinking can be understood generically, as common to all particular acts of thinking. But what would thinking be, understood as both particular (or concrete) and independent of particular acts of thinking?

I reject as grotesque the idea that there is actual thinking independent of particular intentional or representational content. I see no reason to think Descartes was committed to such an idea. Perhaps, though, Descartes thought that something like a reflexive self-attribution, expressible as *I think*, implicitly attaches to every thought. All instances of such an attachment, somehow regarded as a continuous generative activity, might be seen to constitute the principal attribute of the mind, as a 'particular nature'. I think that this is the most promising starting point for understanding Descartes's notion. (Cf. *Principles of Philosophy*, I, 7–9.)

Compatibly, one might also take thinking, the 'particular nature', to be a reflexive *consciousness* or awareness. Such a view is at least loosely suggested in *Principles of Philosophy*, I, 9. This view would allow the field of consciousness to take on particular images and ideas as forms, on a loose analogy to matter taking on particular shapes. Perhaps the active element in Descartes's chosen description of the relevant particular nature—'thinking'—could be seen as necessarily conscious. So the relevant type of consciousness might be understood in terms of the reflexive self-consciousness, expressible as I think, mentioned above. The reflexive self-consciousness involved in the continuing I think is filled out by particular thoughts, which are themselves contingent modes of mind.

I would regard such a view as hyper-intellectualized if it were applied to all thinking minds. Animals and children think, but lack a concept of thinking. They do not think about thinking. I think that Descartes's own view is probably hyper-intellectualized. He would certainly not allow that animals think. He makes some concession in my direction by holding that the relevant consciousness or awareness is to be regarded as present in sensing as well as thinking (*Principles of Philosophy*, I, 9). But I do think it nearly certain that he thought that the idea thinking substance has to be available to every mind. I think this view

[13] Descartes to Arnauld, 29, July 1648, in Descartes, *Philosophical Letters*, trans. Anthony Kenny (Minneapolis: University of Minnesota Press, 1981). I am indebted to Deborah Brown for calling my attention to this passage.

mistaken. I also regard as mistaken Descartes's apparent view that minds must always, at all times, be both conscious and thinking or sensing, if they are to continue to exist.

Still, I think that Descartes's remarks about consciousness as an aspect of the nature of mind are worth reflecting upon if one considers consciousness at different levels of mind. In particular, I think that there are interesting issues about the relation between intellectual reflexive self-consciousness and ordinary phenomenal consciousness.[14] There are also interesting issues about the relation between reflexive consciousness in the activity of thinking (through implicit attachment of *I think* to thoughts) and consciousness of oneself as intellectual agent.

This brings me to the second issue from the quoted passage that I wish to discuss. There is an obscurity in Descartes over the relation between the mental agent and its agency—between the mind and its thinking. There is no obscurity about Descartes's view of the relation between mental substance and its particular contingent thoughts. Descartes is emphatic that the mind and its modes, its thinking events (whether active or passive), are to be distinguished.[15] But the matter is more problematic regarding the relation between mental substance and its principal attribute, thinking—especially inasmuch as thinking is considered a 'particular nature' in the individual thinker.

Neither a field of consciousness, nor reflexive consciousness in the form *I think*, nor whatever else thinking itself might be—*is* the mental agent. The agent is a being that engages in such reflexive acts, that has the relevant self-consciousness. To identify the agent with any of these would be to make a category mistake. An ontological view of mental substance that takes the agent simply to be entirely exhausted by its principal attribute, thinking, seems to me incoherent. Thinking must be the activity of a categorially distinct agent of thinking.

It is clear that Descartes is not committed to mental substances as bare particulars, or as having some further constitution, or stuff, beyond their thinking natures. Thinking is the principal essential attribute of the mind. No other essential property is, on his view, needed for the mind to be a substance. Neither the substance nor the attribute could exist or be understood without the other, and substance is known only through its principal attribute.

But Descartes speaks of the mind as 'producing' thoughts. He often seems to respect the distinction that I am emphasizing, by writing of the mind as a thinking thing. Moreover, as I have noted, he is very firm that particular thoughts, modes (contingent properties), are not the same as the thinking thing, the thinker or mind that does the thinking in particular cases. On the other hand, there are

[14] See my 'Reflections on Two Kinds of Consciousness' (Ch. 18 above).

[15] Cf. Descartes's reply to Hobbes's worry that Descartes had reduced the thinking agent to thinking—the second objection in the Third Set of Replies, in *Philosophical Writings of Descartes*, II, 122–124.

passages where he seems to identify thinking, as a principal attribute (essential property) and particular nature, with substance. (Cf. *Principles of Philosophy*, I, 63.) Some scholars have interpreted these passages in a way that risks attributing to Descartes the category mistake that I have warned about.[16]

In the passage quoted above, Descartes draws an analogy between thinking and a flame, which might be taken to suggest that thinking, considered as principal attribute, is a process that does not inhere in some further thing, a thinker. The other analogy, in the passage quoted, between thinking, as a principal attribute of the mind which can take on particular thoughts as modes, and material extension, which as a 'particular nature' can take on different shapes, raises similar worries. This analogy seems to leave no room for a further distinction between thinking, the attribute, and the mind, as agent—the thing that thinks. For in the case of the corporeal substance, the principal attribute, material extension, takes on further shapes as contingent modes; but there is no need to distinguish between this attribute and a further underlying substance. In my view, although reflexive consciousness, as principal attribute of the mind, might take on particular thoughts as contingent modes, reflexive consciousness (*I think*) must be the consciousness of an agent that has such consciousness.

Descartes's official account of the distinction between a substance and its principal attribute in the *Principles of Philosophy*, I, 60, 62, is not much help. In those passages, he discusses three relevant distinctions. First, he cites a *real distinction*, which holds between substances, which God could separate. Second, there is a distinction *regarding mode*, which holds between substances and their contingent properties or modes. Third, he mentions a *conceptual distinction* (or distinction in reason), which holds between a substance and an attribute of that substance without which the substance is unintelligible. Descartes says that the latter distinction is recognized in our inability to perceive clearly the idea of the substance if we exclude from it the attribute in question. This latter distinction holds between the thinking thing and thinking, its principal attribute construed presumably as a particular nature in the sense of the letter quoted above. Mental substance and its principle attribute are merely conceptually distinct, or distinct in reason, in this technical sense.

One might read 'merely conceptually distinct' (or 'distinct in reason') in a way that would require that thinking substance and its principal attribute are exactly the same at the ontological level, only thought about in different ways. This view seems, at least at first blush, to fall into attributing the mistake of identifying agent and act, when it is applied to thinking substance.

The view that the thinking agent can be understood essentially and purely in terms of its thinking seems to me interesting and characteristically Cartesian.

[16] There is a body of scholarly opinion that takes Descartes to hold that mental substance 'consists' in its principal attribute. As far as I know, however, the problem that I have been raising has not been addressed. For a brief discussion of this construal of Descartes, see Marleen Rozemond, *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1998), 8–12.

Such a view might resist the move of insisting on conceptual grounds that the agent have a further constitution, one more basic than its thinking.[17] But there remains the need to explicate some distinction between thinking agent and the activity of thinking. If there is no distinction between substance and principal attribute, indeed some ontological distinction, then Descartes is committed to a category mistake. The problem of making room for a distinction between an act and its agent (hence, in Descartes's scheme, between mental substance and its principal attribute, thinking) has no analog in the relation between bodily substance and its principal attribute, material extension.

I think that Descartes is in a position to solve this problem, *even if he identifies substance and attribute in some ontological sense*. The difference between the two principal attributes, material extension and thinking, itself seems to provide a basis for drawing the categorial distinction that I am after. If the principal attribute of a thinker, as a particular nature, is continuous reflexive self-consciousness, then the attribute itself, as expressed in I think, requires a distinction between thinker (what is indicated by *I*) and attribute (what is indicated by think). If this conjecture is right, then Descartes's account of thinking as a particular essential nature yields the desired asymmetry between the principal attributes of material and thinking substances.

Before leaving this point, I want to say a bit more about Descartes's conceptual distinction, or *distinction in reason*, mentioned above. This is a distinction that holds between any substance and its principal attribute. In a letter of about 1645, commenting on the distinction, Descartes states that conceptual distinctions, or distinctions in reason, must have a 'foundation in reality'.[18] Descartes contrasts conceptual distinctions, or distinctions in reason, with a distinction made purely by the mind—a *rationis ratiocinantes*. Descartes says that he does not recognize a *rationis ratiocinantes*. Traditionally, a purported example of this latter sort of distinction would be a distinction between *definiens* and *definiendum* in a real definition—between man and rational animal, for example. Descartes apparently would say that reason (as opposed to the language) draws no distinction in this case. Descartes denies that the distinction between substance and principal attribute is a distinction made purely by reason, and claims that the distinction has a foundation in reality.

Descartes seems to associate distinctions in reason with the distinction between essence and existence. In any given case, the essence of a corporeal body and the existence of the same body are for Descartes the same. Although the thought of Peter is different from the thought of humanity, 'in Peter himself,

[17] This is a move that Sellars pressed. I am not convinced by Sellars's view. I shall discuss the matter elsewhere. Cf. Wilfrid Sellars, 'This I or he or it (the thing) that thinks' (Presidential Address, *Proceedings of the American Philosophical Association*, 1970).

[18] Cf. Descartes, Letter to ***, 1645 or 1646, in Descartes, *Philosophical Letters*, 187. I owe this reference and useful discussion of this issue to Lilli Alanen. For discussion of the distinction, see her 'On Descartes' Argument for Dualism and the Distinction between Different Kinds of Beings', in S. Knuuttila and J. Hintikka (eds.), *The Logic of Being* (Dordrecht: Reidel, 1986).

being a man is nothing other than being Peter'. Similarly, in a corporeal substance, being an instance of material extension is nothing other than being the corporeal substance. The essence can, however, be thought about independently of the existence. And this difference in thought has a foundation in 'objective reality' inasmuch as the difference in thought contents is not created by reason (it is not a *rationis ratiocinantes*), but is grounded in objective ways of thinking.

Descartes's nominalism about natures prevents him from regarding this difference in 'objective reality' as being grounded in an ontology of universal natures. I am not sure that with his thin nominalistic resources he can give a satisfactory account of the objectivity (or 'foundation in reality') of the distinction between substance and attribute—an account of why the distinction in thought is objective. In any case, I think that anti-individualism will require him to say more than he does. But as far as I can see, he has the resources to avoid the particular incoherence of identifying agent and agency that I have been worrying about.

There remains, of course, the notorious question—pressed by Kant in the Paralogisms section of *Critique of Pure Reason*—as to how, in the context of his substance dualism, Descartes individuates *individual minds*. Suppose that we do allow that there is an agent of thought, and (for the sake of argument) that this is the fundamental mind substance. What is it about this agent that individualizes it? Not the particular thoughts it thinks. They could be different while the agent remains the same. Not the general attribute of thought. That is common to different thinking agents. There is no evidence that Descartes appeals to 'mental stuff' . As noted, such an appeal would lose the insight that mind is deeply different from body. It would miss the role of intentionality and *point of view* in making thinking agents what they are. There is the neo-Kantian route of demanding a body as a necessary condition for individuating a mind. The arguments for that view are tantalizing, but I do not think them decisive. At any rate, given his dualism, Descartes cannot appeal to the brain or to 'external' physical objects to help individuate particular mental substances.

Is there any way to think coherently about the individuation problem purely from the point of view of Descartes's version of dualism? Perhaps one should take seriously Descartes's apparent tack of simply regarding individuation of particular minds as primitive: We individuate a mind by conceiving it as an agent of particular mental acts. The same mind could have produced other thoughts instead. We count a mind the same by reference to some type of continuity of a changing point of view. (I would insist that the agent has not only conscious active thinking, but powers, faculties, concepts, and other mental dispositions that are present even when mental activity is not.) I believe that Descartes may be on to something important in regarding thinkers as consisting not in some special sort of stuff, but in particular instances of the special type of agency, power, consciousness, and point of view involved in thinking.

What is interesting and challenging here is to explain why immaterial *constitution* and bodily *constitution* are not basic—and why the aforesaid mentalistic

features are the basic properties of minds or thinkers. A central challenge for a serious dualism should be to explain why the *fundamental* sortals can be activity sortals rather than constitution sortals. Another Kantian challenge is to show that a continuous thinker can be made sense of, using only mentalistic concepts. Whether or not these challenges can be met, I believe that reflection on these issues has so far not exhausted all possibility of progress. Descartes's dualism seems to me more interesting than traditional caricatures of it allow.

I have no interest in reviving a substance dualism, where 'substance' is taken in the old-fashioned sense—requiring complete ontological independence from anything else in the same ontologically basic category. I am not sure that *anything* is a substance in the old-fashioned sense. It is not obvious to me, however, that it is mistaken to suppose that mental agents and their mental powers, acts, and states are in no literal sense physical.

For the present, I am impressed with anti-individualistic elements in Descartes's account of mind. I think that anti-individualism is prima facie compatible with some form of dualism. These are profound historical and substantive issues that need more development.

III

I mentioned earlier that Descartes's appeal to God and his austere conception of physical reality may have played a role in his having so little to say about the detailed ways in which our thoughts depend for their individuation on particular relations to aspects of the physical environment. There is much to discuss here that I will not have space to go into. But I want to make a few remarks about Descartes's conception of physical reality, and of our ways of referring to it. In my view, Descartes's conception of physical reality and of our reference to it is much more different from ours than his conception of mental reality and of our ways of referring to *it*.

Descartes's conception of the ways we might fall into error is a perpetual challenge to attempts to answer scepticism.[19] He is sensitive to the fact that some of our representations are composites of other representations (griffins, satyrs). He challenges us to distinguish the representations that apply to genuine realities from implicitly composite ones that do not. Moreover, he is aware that some of our sensory systems are geared not to detect objects and properties as they really are, but rather to signal contrasts and changes that are potentially

[19] Normore speculates that I would say that in the 'Ur Demon world' all our thoughts are about the demon or about ourselves. He holds that Descartes would say that we have no general thoughts at all because there are no natures. What I would say depends on a more detailed account of the relation between the demon and us and of how the demon purportedly thinks. I am not committed to disagreeing with Descartes on this matter.

relevant to our survival or other practical needs.[20] Again he challenges us to distinguish veridical perception from practically useful but epistemically unreliable perception, and objective detection from practically useful sensory signals that do not function to detect objective properties at all. These points go very deep. They enrich the sceptic's arsenal in ways that are often not adequately appreciated today. Scepticism is not our primary topic, but some remarks on Descartes's view of reference to physical reality will enrich our discussion of his relation to anti-individualism.

Descartes's view of reference is, as far as I understand it, simpler than mine. I think it too simple. He tends to see unsuccessful reference with kind concepts as the result of our making, perhaps unconsciously, a fictitious combination out of basic ideas for simple natures or out of parts of simple natures. The idea of a satyr is a prime example.[21] There are, however, other ways of making referential errors with kind concepts—ways that Descartes does not seem to recognize. The concept phlogiston does not seem to be a composite built out of representations for simple natures. It is the product of an explanatory theory that is constitutively dependent not on combination from simpler elements, but on an inference from observational beliefs.

Descartes might, of course, extend the notion of combination to this case. He might insist that although we may not think that the concept of phlogiston is composite, it nevertheless is. But the notion of composition or combination would then seem to be so flexible as not to be very informative. I see no evidence that Descartes made use of what we now think of as scientific theoretical explanatory inference in his account of concept formation.

My colleague Calvin Normore holds that Descartes thinks that reference succeeds only when the explanatory cause of the mental event is the same as the explanatory cause of the content of the mental event (its objective reality). In such a case, the cause is identified with the referent. Whether or not it is Descartes's view, this view, too, appears to incorporate too simple a causal picture. A Martian scientist could refer to H_2O even though he or she bore no causal relation to H_2O and did not bear causal relations to all the factors postulated in the theory. Suppose that the scientist has causal relations to oxygen and hydrogen and, despite lacking any experimental causal relation to the particular sort of bonding connection between them, guesses or hypothesizes—near enough—the correct bonding relation. Then the object of the idea, H_2O, is not the explanatory cause of either the representational content or the mental event.

[20] For a recent discussion of empirical aspects of this point, see Kathleen Akins, 'Of Sensory Systems and the "Aboutness" of Mental States', *The Journal of Philosophy*, 93 (1996), 337–372.

[21] I take it that Normore is right that simple natures, for Descartes, do not include human or goat bodies. Although the ontological status of ordinary bodies is obscure, it seems to me that Descartes's satyr example in *Meditation* I is meant to exemplify a primary sort of error. Satyr representations are made up of parts that veridically apply to the simpler natures. The simpler elements one most immediately thinks of (human heads and torsos, goat legs) are not genuinely natures, but can be regarded as such for the sake of illustration. Ultimately the real simple natures are parts of extension.

Moreover, there is no straightforward sense in which the cause of the mental event is the same as the explanatory cause of its representational content. I do not see that explanations of psychological events and explanations of representational content are likely to track one another—in the simple way that Descartes seems to expect—in the case of complex theorizing.[22]

Nothing depends here on the referent's being a compound. It could be an element or even a type of elementary particle. A scientist could correctly postulate and refer to such kinds, without having a causal relation to their instances. Descartes might not have counted particles, elements, or compounds as genuine elements of the world—as simple natures. The paradigm for him is geometrically shaped matter. But I do not see that he has the resources to form a plausible account of how we come into a referential relation to actual physical kinds that we now recognize as kinds and to which we bear no causal or perceptual relations. The tools of perceptual, or quasi-perceptual, reference and combination seem inadequate to the task. Descartes may have thought that our only genuine referential relation to simple natures was quasi-perceptual.

One might maintain that given Descartes's austere and simple view of elementary natures and of the ways they relate to one another to form complexes (basically part–whole ways), he can afford to rely on his simple account of reference. Everyone has had causal relations to chunks of matter and to part–whole relations. Assuming that all geometrically possible combinations are innately available to our mathematical intuition, perhaps Descartes can hold that it is safe to assume that we bear causal relations to all the genuine constituents and have access to all the genuine relations needed to form all kinds that we in fact have ideas of. Then my objection would be to his ontology, which I shall discuss shortly.

I think that Descartes's over-simple account of reference is associated with his seeing all representation as a sort of perception, or a combination of perceptions. This picture underlies the tendency to see reference to an object or kind as dependent on causal relations to *that* object, or else 'combinations' of representations each of which bears causal relations to an object. I see Descartes as relying too little on discursive elements in concept formation (and hence conceptual reference)—elements that Kant and Frege emphasized.

It may seem surprising that Descartes was guided by such a picture, given his focus on the mathematicization of nature. The picture was encouraged by a venerable but now dated conception of mathematics. Although Descartes's unification of geometry and algebra began the process that eventually freed mathematics for a more abstract view of its subject matter, Descartes joined a dominant tradition, which ran even into Newton's early mathematical practice and motivated Kant's philosophy of mathematics, of seeing geometry as epistemically basic in mathematics. Geometry was supposed to be an abstraction from

[22] I cite such a case in my 'Other Bodies', in A. Woodfield (ed.), *Thought and Object* (Oxford: Oxford University Press, 1982) (Ch. 4. above).

our perceptual experience of objects in space. Thus Descartes seems to have seen the methods of mathematics as quasi-perceptual at their basics, with an attendant abstraction from empirical assumptions of actual existence.[23] Descartes saw geometry as studying the shapes of the physical world, with no presumption that they were actually materially instantiated.[24]

Both mathematics and the use of mathematics in physics have become increasingly independent of their geometrical origins. The progressively more abstract conceptions of mathematics and of physical explanation have forced a more complex picture of the representation of physical reality. The recognition that representation and mathematicization of physical reality can be tied to perception in only very loose and complex ways, involving theoretical explanatory inference, has been forced on us by these developments in the physical and mathematical sciences.[25]

Descartes's difficulty with theoretical reference to physical kinds that one bears no causal relation to was hidden by two elements of his philosophy. One is his extremely austere physical ontology, which admits only geometrical forms of matter as simple physical natures. Such an ontology seems to disallow not only nearly all commonsense macro-objects but even most of the natural kinds of present-day science. The other element is his tendency to blur the distinction between mathematical and physical kinds. Given the austere ontology, he did not need to worry about the sorts of theoretical kinds that I have mentioned. Given his view of physical kinds as being instances of geometrical kinds, he could believe that all the relevant basic kinds are available to perception informed by geometrical structures. More complicated kinds are constructible by geometrical reasoning from the simpler ones. But Descartes regards even the results of construction ultimately in quasi-perceptual terms rather than in terms of proof or formal construction.[26]

It must be said that an analog of the problem that I have raised for Descartes regarding reference to theoretical physical kinds faces us today. Once a modern distinction between mathematics and physics is in place, one needs to account for reference to mathematical objects (or functions) that are not in any straightforward sense physical properties. We have no causal relations to the objects. I think that we cannot plausibly help ourselves to the idea of a theoretical explanatory

[23] John A. Shuster, 'Descartes' *Mathesis Universalis*, 1619–28', in Stephen Gaukroger (ed.), *Descartes: Philosophy, Mathematics, and Physics* (Brignton: Harvester, 1980); Stephen Gaukroger, 'Descartes' Project for a Mathematical Physics', ibid. To Descartes's credit, he came to place less and less emphasis on the role of images in mathematical thinking.

[24] Descartes, *Conversations with Burman*, AT X, 160; *Descartes' Conversations with Burman*, ed. John Cottingham (Oxford: Clarendon Press, 1976), 23. Cf. *Meditations*, VI, AT VIII, 79–80.

[25] I believe that representation of most mathematical reality is in principle independent of perception, not only for its justification but also for individuation of its content. This is a complex issue that I will not pursue here.

[26] Cf. Ian Hacking, 'Leibniz and Descartes: Proof and Eternal Truths', *Proceedings of the British Academy*, 59 (1973), 4–16.

inference from perceptual references that are grounded causally. Cartesian mathematical perception of geometrical properties does not seem viable either, as a full account of reference to mathematical objects. Geometry is not a foundation for all mathematics. Moreover, pure geometry itself can no longer be seen to concern physical space directly. I think that accounting for mathematical knowledge and mathematical reference requires notions that Descartes did not employ. It requires notions of objective formal structures that inform thought and reason, and rational commitment to entities associated with these formal structures—a commitment that is implicit in the very practice of mathematical reasoning. This is a complex matter whose exploration is not in place here.

My difference with Descartes about reference is, as I have mentioned, associated with a difference with his conception of physical reality. As I have noted, Descartes has an extremely austere conception of physical reality. For him, physical reality is made up of extension and parts of extension. This is an impoverished conception even of the world of physics. The subsequent history of physics, beginning with Newton's recognition of forces as fundamental and continuing with the addition of dynamical and field relations to mechanical ones in the nineteenth and early twentieth centuries, has made Descartes's conception seem even more impoverished than it did to his contemporaries. Moreover, I do not accept Descartes's apparent reduction of physical reality to physics. There are chemical and biological kinds that are fundamental natural kinds.

Equally important, there are ordinary physical kinds that do not fit neatly into the sciences; and there are perceptible, artifactual, and social kinds that Descartes tends to treat as modes, or perhaps even constructs, acceptable in everyday practical life but unacceptable as basic in a serious account of reality. I take clouds, rainbows, brisket, rocks, the North Sea, arthritis, redness, shadows, cracks, rough-texturedness, sounds, cold, sofas, clothes, symphonies, the United States—as well as human bodies—to be kinds or individual entities that need not be reduced to parts of extension or of matter or to sequences of collections of particles. And they are not mere projections of our minds. Yet all of these are kinds or properties of *physical entities*, with the possible exception of symphonies and the United States.

My colleague Calvin Normore goes so far as to suggest that Descartes believes that we make such kinds in the sense that we 'project' 'principles of unity' for them. (I am not convinced by this reading of Descartes, incidentally. But there is no question that Descartes thought that such objects have *some* kind of ontologically secondary status.) Here again, I think that it is a mistake to think that such objects or kinds are 'ideal' or merely practical. I do not agree that they are in any sense constructed by us. Of course, most *artifacts* are dependent on our intentionally making them, causing them to come into existence more or less according to some plan. Once made, the artifacts are what they are, regardless of how we regard them. An amplifier is not a kind of thing only by courtesy of our 'projecting' a principle of unity whose reality lies entirely in our projection.

We fix on and represent kinds, features, and relations in the world. Often our representations reflect interests and needs special to us. One should not, however, conclude that since we represent a pattern only because it corresponds to some need or interest of ours that the pattern is a product or projection from our needs or representational abilities. The world is made up of individuals that instantiate a rich, hierarchical, cross-quilt of patterns made up of properties, relations, kinds. Science deals with those that submit to explanatory systematization that is relatively deep. A pattern, however, is, not less real for being local, or for being perceptible only by certain sensory modalities, or for being constitutively dependent on causal processes that do not fall under the systematic principles of some science. It seems to me that it is a mistake to regard reality fundamentally in terms of law. The unities and similarities that we make use of are for the most part quite independent of us, even where they are of special interest to us, and might be of no interest to some other species.

Even if Descartes does not hold the sort of conventionalism that Normore attributes to him (as I suspect he does not), his reductionistic picture of physical kinds is, I think, unacceptable. I believe that Descartes's view of physical reality can be seen, in retrospect, to be one of the more flamboyant, though in a certain way admirable, products of intellectual hubris. It is no longer a rationally warranted view of the physical world. Accepting the variety of types of concept formation and reference, and the variety of types of physical kinds in the world, calls for a more complex account of the individuation of mental kinds than Descartes gives. I am inclined to think that Descartes was an anti-individualist, but that because of his simple view of reference and of physical reality, he did not see it as a challenge worthy of his considerable powers to elaborate the doctrine of anti-individualism. I think that this is one reason why it is so hard to find clear and determinate statements of anti-individualism in his work. It remains a matter of judgment, rather than textual proof, that Descartes was an anti-individualist.