Philosophy Needs Medicine: Historiography, Descartes and Other Minds

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Introduction

Descartes is remembered today primarily as a philosopher, yet he was no mere philosopher, or less anachronistically, he was no mere natural philosopher. He thought of himself as actively engaged in the pursuit of medical knowledge, for example, and if generations of early modern historians have been mostly blind to Descartes’ medical interests, it is only in keeping with early modern historians’ blindness to the history of medicine itself. In this, I think, early modernists would be well advised to take a page from the work of our Classicist colleagues, who no longer presume that the history of philosophy can be adequately pursued without studying the history of medicine. This is especially true when the topic is epistemology, and discussions of Hellenistic views of evidence and demonstration in particular must take account of what medicine had to say. The historiographical point I would like to

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1 Natural philosophy is a somewhat amorphous disciplinary category in its own right, and certainly should not be confused with physics if that is taken to mean the science of motion. Thankfully this mistake is rarely made today, but the difficulty of pinning down the precise subject matter of natural philosophy remains. For a helpful discussion of this topic see Lüthy 2000.

2 I am thinking particularly of the work of G.E.R. Lloyd, Heinrich von Staden, R.J. Hankinson, Mark Schiefsky and Philip van der Eijk, all of whom combine the history of medicine and the history of ancient philosophy.

3 Allen 2001 nicely illustrates this point when elaborating the distinction between commemorative and indicative signs. “Evidence”, Allen writes, will “accumulate to leave little doubt that we are dealing with a medical distinction which, though not unrelated to important strands of thought in the professional
make is simply this: historians of early modern philosophy have yet to take advantage of the history of medicine, and it is about time that they do.

In the paper to follow you will find a case study meant to support my historiographical claim. By focusing on Descartes and the rather old fashioned skeptical problem of other minds, I hope to show not only that we have underestimated Descartes but that we failed to appreciate a novel answer to the other minds skeptic. Yet, surprisingly, to this day we lack not just a compelling account of the history of other minds skepticism but really anything like an even plausible account. The version of the problem noted by John Searle in his recent *Mind: A Brief Introduction*, in a chapter titled “Descartes and other disasters,” and the one that I will be emphasizing, might be called the epistemological problem of other minds. The driving question here is about how we know other minds exist. It will help to distinguish this version of the problem from two others. The first is the ordinary problem of other minds. On countless occasions we would all like to know what someone else is thinking, and the ordinary problem of other minds is rooted in the simple-everyday-challenge of determining what someone else is thinking. How do I know what Melissa is thinking? I wish I knew what Melissa was thinking. The existence of other minds is not at issue in these contexts, though I believe there is a story to be told about how the ordinary problem transforms, perhaps even quite naturally, into the epistemological problem. Distinct from the ontological problem and the ordinary problem (though here too a story can be told) is the conceptual or intentional problem of other minds. How do I so much as conceive of other minds? How can I so much as have thoughts about other minds?4

Unlike the historical genesis of the problem of the external world, which has been discussed with some regularity, the epistemological problem of other minds has received relatively little discussion, and I will not bore you with some of the foolish things that have been said except to say that one finds a lot of Searle-like gestures in Descartes’ direction.5 In a short philosophy of the time, is strongly coloured by the approach taken to these issues by the leading schools of medicine” (Allen 2001, 108).

4 To the extent that I understand him I think this last version is Wittgenstein’s version of the problem. Although in this paper I am emphasizing the epistemological problem and Descartes’ resources for answering it, I would also claim that Descartes is not without an answer to the conceptual problem.

5 One finds, for example, Thomas Buford introducing an anthology on other minds with the suggestion that “the other minds problem received its first clear formulation by John Stuart Mill in the nineteenth
paper such as this I can not fill the lacuna, but I can offer some facts and factors that any historically adequate account will need to notice. More central to my aspirations, however, I will be arguing that Descartes has genuinely interesting things to say to the other minds skeptic, in spite of the fact that he never seems to have such a skeptic clearly in view. We can only see this, however, once we know something about the history of medicine.

To this end, in section one I offer some reflections on the history of the problem of other minds in the seventeenth-century. As I interpret the facts surrounding the emergence of other minds skepticism, the right conception of the human body proves as important to the emergence of the problem as the right conception of the mind. This is particularly important to notice because it turns out such a conception appears to be introduced by Descartes. In section two I supplement the material introduced in section one and argue that Descartes’ various claims about other minds do not add up to an awareness of the skeptical problem distinct from the skeptical problem of the external world. Here I will try to convince you, among other things, that the language test from the *Discourse* is meant to establish, at most, only that a mind is not present in a given body, i.e. it does not license any inference about a mind being present. This leaves us, so I claim in section three, with Descartes’ late correspondence with the Cambridge Platonist Henry More. In this section I show that Descartes’ most explicit treatment of other minds skepticism, so much as it exists, depends on an appeal to a common “nature” shared by all human bodies. This answer has been missed or unappreciated because, again as I hope to show, Descartes’ use of medical terminology has passed unnoticed by scholars.

So, if there are four things I would like you to take from this paper they are these: (1) the Cartesian conception of a living functioning human body plays an important part in generating the problem of other minds, (2) Descartes did not himself seem aware of the problem, and for good reasons, (3) we might nevertheless reconstruct an answer to the skeptic on Descartes’ behalf that commits him to what might seem like an un-Cartesian view of the living functioning human body, and (4) this reconstruction is predicated on our knowing something about the history of early modern medicine.

footnote: century” in spite of the fact that the problem was addressed in the work of Malebranche, Leibniz, Berkeley, Reid, and even Kant, and of course in Fichte and the other German Idealists (Buford 1970, xii). Anita Avramides’ recent *Other Minds* is helpful on a number of points, but it demonstrably fails to get the history of the problem right, especially with respect to the early modern period. Voula Tsouna’s scholarship concerning the place of other minds skepticism within the Ancient Skeptical tradition is the exception to the rule.
I. Before amending our historical understanding in earnest, it must be conceded that gestures in Descartes’ direction are not wholly unwarranted. After all, at the beginning of Meditation Two, when reflecting on what she is no longer convinced exists, the meditator concedes “that there is absolutely nothing in the world, no sky, no earth, no minds, no bodies.” Just as the doubts raised in Meditation One threaten our pretense to know things based solely on the testimony of the senses, so too do they render doubtful the existence of minds. If we assume, I think fairly plausibly, that the meditator’s first constructive step is to establish that her own mind exists – a not unreasonable reading of the cogito – we look in vain in the subsequent meditations for an explicit proof that other minds exist; and this in spite of the fact that Descartes himself uses the first person plural a number of times in the subsequent meditations.\footnote{See for example AT 7, 21, 30, and 32. (“AT” refers to the standard original language edition of Adam and Tannery, followed by volume and pagination. I have generally relied on the Cambridge translations of Descartes’ work, which include the original AT references in the margins. The Cambridge translations will henceforth be referred to by “CSM” followed by volume and pagination.)} While we might infer from the shift from first person singular to first person plural that Descartes intentionally side-stepped other minds skepticism, I would suggest instead that he failed to distinguish adequately the problem of other minds even if in the end he made a problem for us, a problem for posterity.

This conclusion gains some support from the fact that it was the first generation Cartesian Gerauld de Cordemoy, best remembered now for his early advocacy of occasionalism, as well as a rather odd commingling of atomism and Cartesianism, who first presents other minds skepticism as a noteworthy and distinctive philosophical concern.\footnote{Cordemoy is not much discussed in the English speaking world apart from the occasional reference to his occasionalism, but see Ablondi 2005 for some of the broader details of Cordemoy’s natural philosophy. Cordemoy’s contribution was brought to my attention by three sources: The first was an editorial note by Robinet in his edition of Malebranche’s Oeuvres (Malebranche 1958-1984, vol. 1, 530-31, n. 384). The second was a series of references in Van de Pitte 1975, and the third was Gabby 1990.} Writing in 1668, eighteen years after Descartes’ death, Cordemoy begins his Philosophical Discourse Concerning Speech:

Amongst the Bodies, I see in the World, I perceive some, that are in all things like mine, and I confess, I have a great inclination to believe, that they are united to minds, as mine is. But when I come to consider, that my Body hath so many operations distinct from those of my mind, and that nothing of what maketh it subsist depends at all from Her, I think I have at least ground to doubt, that those
Bodies are united to minds, until I have examin’d all their actions: And I do even see that by the maxims of good sense I shall be obliged to believe, that they have no mind, if they do only such things, whereof I have found in my self that the Body alone may be the cause.\textsuperscript{8}

Nearly everything that follows in Cordemoy’s monograph is dedicated to resolving the question asked in this opening paragraph: How do I know that the bodies “like mine” are “united to minds?” In other words, how do I know that human bodies other than my own actually form what Descartes sometimes called a “composite” with minds? Or, to put Cordemoy’s question in its most general form: how do I know that other minds exist?

What was it that Cordemoy saw and Descartes missed? To answer this question it might first help to address a slightly different one: What does the problem of other minds take for granted, or what is required to take other minds skepticism seriously?\textsuperscript{9} One very tempting answer, and I think an all too common one, is that we need only recognize the existence of our own mind in a way distinct from and prior to the manner in which we come to know other minds exist.\textsuperscript{10} If this is right, then the need and primary motivation to ask about other minds comes from what has been called Descartes’ transparency thesis in Meditation Two and the asymmetry between the ways in which we know our own minds exist – self-evidently, intuitively, or directly through introspection – and the ways in which we could possibly know other minds to exist –

\textsuperscript{8} Gerauld de Cordemoy, \textit{A Philosophical Discourse Concerning Speech, Conformable to the Cartesian Principles}, published the same year in English as in French.

\textsuperscript{9} The suggestion that something is “required” to ask or raise a skeptical doubt I take to be a significant constraint about what we might call the “phenomenology of skepticism.” One might, by contrast, imagine all we need do is speculate ad hoc that we are but brains in a vat, or that we are dreaming, but without reasons for taking these speculations seriously the skeptic’s question gains little traction. It is easy enough to say this, but the question becomes: what reasons move us to take these speculations or scenarios seriously? My own intuition is that the skeptic’s questions must arise (as they traditionally have among philosophers) from reflections on our normal claims to be in possession of true beliefs. The self-destruction of our knowledge claims, once put to the test, is an apparent theme in the work of Thompson Clarke, Thomas Nagel, Peter Strawson, and Barry Stroud, and has an equally apparent connection to a naturalist reading of Hume’s epistemology. One might also add the recent work of Robert Fogelin to this list, although he is more interested in and inspired by Ancient Pyrronian skepticism than the philosophers just mentioned. Whether we should be pessimistic I am not sure, and though I offer a response to the other minds skeptic in section three below, it hinges, in a number of ways, on our already being in possession of a response to the external world skeptic.

\textsuperscript{10} I take it that this view is omnipresent. Take as an example of it the following passage: “Without a worry about how I can be justified \textit{in inferring} that there are other minds, when the only one I can \textit{observe directly} is my own, there is no Problem of Other Minds” (Matthews 1986, 142; emphasis added).
through argument, inferentially, or indirectly. Taking Descartes’ meditator to be a manifestly solipsistic self, reading only as far as Meditation Two we would appear to have all the resources for asking about the existence of other minds.\footnote{Descartes starts from a \textit{solipsistic self}, whose existence is assured to him because he cannot doubt it. It is a ‘self’ which, in a state of suspension of knowledge, is an isolated subject – a subject separated from a world of objects, including ‘other selves’ or ‘thinking subjects’, and even from his own body” (Dilman 1993, 3; as cited at Sorell 2001, 55).}

Is this what Cordemoy saw and Descartes missed? I think the answer has to be no. For one thing, I am not entirely comfortable with the suggestion that Descartes holds the transparency thesis, but even if he did and Cordemoy thought as much, Cordemoy must have seen more. Though unquestionably aware of the doctrines expressed in Meditation Two, Cordemoy explicitly envisioned his \textit{Philosophical Discourse Concerning Speech} as akin to a Meditation Seven, added onto Descartes’ original six.\footnote{Feisal Ben Hassel has suggested to me that this is not an entirely accurate characterization of the \textit{Discours physique de la parole}, but see the passage in the following note.} Another meditation was needed because the return of the external world still left the existence of other minds unresolved.\footnote{“I proposed in the Six Discourses which preceded this, the means to know Ourselves, & made it manifest, that it only consisted in discerning in us the Operations of the Soul, and those of the Body. Now I propose the means of knowing Others” (Gerauld de Cordemoy, \textit{A Philosophical Discourse Concerning Speech, Conformable to the Cartesian Principles}, preface, unpaginated).} This is obvious enough, but while Cordemoy believed Descartes’ response to hyperbolic doubt was incomplete, attention to the opening passage of the \textit{Philosophical Discourse Concerning Speech} reveals something less obvious. Cordemoy believed that the problem of other minds emerges only with respect to the already established existence of bodies “that are in all things like mine.”

This is no historical accident. Skepticism demands and only deserves our attention when it undermines our best claims to know, such as my belief that “Honey is sweet,” or that “I am here, sitting by the fire, wearing a winter dressing-gown, holding this piece of paper in my hands” or that “that is a goldfinch”. If we begin with any pretense to knowledge about the existence of other minds it would seem to be that the living and breathing human bodies reading this paper have minds. This is a best case of knowing or what we might characterize as knowing under ideal conditions. It is this pretense to knowledge that a persuasive “skeptical scenario”
about other minds needs to exploit. Failing this, there would still be some knowledge for the believer to fall back on. We will only have the problem of other minds if there are unresolved questions about the bodies right in front of us. Only then will the skeptic have succeeded in casting doubt on all our claims to know that other minds exist.

The lesson I want to draw from my discussion so far is the following: it is as important to have the right conception of the human body to explain the emergence of the problem of other minds in the seventeenth-century, in the work of Cordemoy, as to have the right conception of mind. Specifically, an adequate historical reconstruction of the problem needs to identify and isolate a conception of the human body as a functioning living thing the existence of which does not entail or involve the existence of a mind. We are not interested in talking about dead

14 The phrase “skeptical scenario” comes from Janet Broughton’s recent Descartes’s Method of Doubt, though I was first introduced to the idea by David Macarthur. Roughly, the idea behind the phrase is that the skeptic’s descriptions (i.e. skeptical scenarios) of how we come to have the beliefs that we do preclude the possibly that our beliefs are true. The more effective skeptical scenarios tell an alternative causal story about the ways in which our best claims to know arise, thereby revealing that they are other than true beliefs.

15 The foundationalist model of knowledge implied by my remark in the text above, and the general need for foundationalism in generating modern skeptical worries have been discussed at some length by Michael Williams in Williams 1996 and in a more summary fashion by Jonathan Dancy in Dancy 1985. In general I do not find the foundationalist association convincing, and I certainly do not think it supports the conclusions of Williams. At least in the case of Descartes the premises that Williams counts as foundational do not even come from Descartes (or the skeptic), but from those presuming to know, and most likely, given his readership, those predisposed toward some version of Aristotle. I also confess that if Williams’ contextualist response to skepticism is the best response we have, I fail to see how it is anything but a near complete capitulation to the skeptic. What, after all, does a skeptic want to show but that our knowledge claims are not objective in the sense of independent from ever changing contexts and not in need of endless qualifications?

16 In one formulation of the problem of other minds J.S. Mill asks, “By what evidence do I know, or by what considerations am I led to believe, that there exist other sentient creatures; that the walking and speaking figures which I see and hear, have sensations and thoughts, or in other words, possess Minds?” (Mill 1865, 243). Significantly, Mill too is interested in only certain bodies, and I think it is clear he means living human bodies that are in all respects fully functioning. Likewise in the case of Bertrand Russell’s appeal to the argument from analogy:

“We observe in ourselves such occurrences as remembering, reasoning, feeling pleasure, and feeling pain. We think that sticks and stones do not have these experiences, but that other people do…. It is clear that belief in the minds of others requires…. something that may be vaguely called “analogy.” The behavior of other people is in many ways analogous to our own, and we suppose that it must have analogous causes. What people say is what we should say if we had a certain thought, and so we infer that they probably have these thoughts. (Russell 1948 , 433)
bodies that resemble us in innumerable ways. Nor are we interested in presumptively similar (though by hypothesis non-human) bodies. Neither of these will do. If we look at Descartes’ *Meditations* to get the right conception of body then we need, at minimum, the real distinction between mind and body and the proof for the existence of bodies (although as we will see in section three this too is not enough). We do not get these until Meditation Six, and, if for no other reason, this accounts for why Cordemoy wrote a proverbial Meditation Seven, and why considerations only about the nature of the mind and subjectivity did not themselves create other minds skepticism in the seventeenth-century.

II. Beyond the sentence I have already cited from Meditation Two, where the existence of each and every mind is in doubt, including our own, there are only a handful of passages in all of Descartes’ writings that are relevant to the problem of other minds. A number of commentators have worked these passages over, using them to do everything from identify an answer to the other minds skeptic to support the claim that Descartes recognized and invented the problem. I will be using these passages once more, but this time to support the claim that Descartes never had the problem in view. More than this though, I want to suggest that Descartes had good reason to limit his focus to the skeptical problem of the external world. I end this section by examining the role of language use in assessing who does and does not have a mind.

This passage begins with other “people,” but it is really a conception of human bodies displaying behavior, though not necessarily mindedness, that motivates the problem of other minds. (Some scholars who take notice of Descartes’ “need” to prove the existence of other minds have suggested, with Donald Henze, that, “Descartes’ thinking about the existence of other finite, created, thinking, and unextended substances – in short, other human minds – takes the form, approximately, of argument by analogy” (Henze 1972, 43). Nowhere in Descartes do we find such an argument, as Searle surprisingly notices (Searle 2004, 23-24). For a strong criticism of Henze, see Van de Pitte 1975.)

For a detailed and quite insightful discussion of the role of the body in generating the problem of other minds see Long 1964 and the concluding pages of Sorabji 1974. Anne Bezuidenhout pointed out to me that I might be talking here about what in contemporary philosophy are sometimes called zombies. It is an interesting question whether or not Descartes would admit to the possibility that there are zombies. The answer, I think, is that on Descartes’ view there are no zombies in this world, i.e. the actual world which is necessarily the case.

Fredrick Copleston effectively gets it right when he notes that “neither in the *Meditations* nor in the *Principles of Philosophy* does… [Descartes] treat specifically the problem of our knowledge of the existence of other minds” and further that “if called up, [Descartes] would doubtless produce an… argument… [appealing] to the divine veracity, to existence, the existence of other minds.” (Copleston 1960, Volume 4, 117).
In a late letter to the Henry More, Descartes makes his most explicit claim about our access to the minds of others. The subject under discussion is the appropriate attribute to assign to corporeal substance, and More’s advocacy of the attribute “being perceivable.” Descartes’ view was that the primary attribute of corporeal substance is extension alone. In response to More’s March 5, 1649 letter, Descartes encourages More to consider whether or not “being perceivable” is even in principle possible for the smallest particles of matter. Descartes writes, “For sensory nerves so fine that they could be moved by the smallest particles of matter are no more intelligible to me than a faculty enabling our mind to sense or perceive other minds directly.”

The fact that we have no difficulty recognizing that matter exists, even though by hypothesis such matter is not perceivable, is meant to tip the scales in Descartes’ favor. More is supposed to agree that such matter exists and is extended, and that qualifying our conception of it by citing the attribute of “being perceivable” denies what we otherwise understand quite clearly about its existence; i.e. that matter only needs to be extended to exist.

Something similar is going on with respect to our conception of other minds, as the analogy being drawn is between the kind of causal access we have to imperceptible particles of matter and other minds. There is no suggestion that knowledge of the existence of other minds faces unique obstacles not shared in the case of matter. Given this, the most natural way to understand Descartes’ remarks to More would be to take him as saying, quite innocently, that we cannot imagine having direct access to other because, though we know other minds exist, the fact that they are other minds means that by hypothesis they are not perceivable; just as sensory awareness of imperceptible matter is unintelligible, so too is sensory awareness of other minds.

Once the doubts introduced in the Meditations are resolved, Descartes never for a minute thought his lack of a capacity to directly perceive insensible matter rendered the existence of such matter doubtful, and our similar deficiency with respect to other minds does not render them doubtful either. The point of Descartes’ response to More is precisely that the existence of these things

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18 Descartes to More, April 15, 1649, AT V 341, CSM III 372.

19 Though we know that imperceptible matter is extended, Descartes is fairly clear that the particular configurations that imperceptible matter takes cannot be known with a high degree of certainty. To this extent our lack of direct perception may look to be a handicap. Something similar applies to the case of other minds, where, though we know that such minds exist, our lack of direct perception entails that we do not always know what someone else is thinking.
and our awareness of their attributes has nothing to do with their directly being perceivable by the senses.

This is not an insignificant result, and it refocuses the effort to understand Descartes’ relationship to the problem of other minds onto the role of the senses in Descartes’ epistemology more generally. A sequence of passages in Meditation Two addresses precisely this issue, and (by happenstance?) in the midst of the discussion the meditator seems to bring up the problem of other minds. I am alluding to the famous discussion of the piece of wax, and to the meditator’s quest to determine how we can understand the nature of anything. Her answer comes out explicitly in the discussion of what it is that we “see.” So as not to be confused by our lax use of the word “see,” as in “I see this wax” or “I see this human being,” she says:

We say that we see the wax itself, if it is there before us, not that we judge it to be there from its colour or shape; and this might lead me to conclude without more ado that knowledge of the wax comes from what the eye sees, and not from the scrutiny of the mind alone. But then if I look out of the window and see men crossing the square, as I happen to have done, I normally say that I see the men themselves, just as I say that I see the wax. Yet do I see any more than hats and coats which could conceal automatons. I judge that they are men. And so something which I thought I was seeing with my eyes is in fact grasped solely by the faculty of judgment which is in my mind.\(^\text{20}\)

The meditator’s point is not to suggest that seeing men, and therefore mind-body unions, and therefore other minds, requires a special kind of judgment on our part. Any such reading would be seriously mistaken.\(^\text{21}\) The hats and coats are meant to illustrate only that we deploy judgment, and therefore the will and intellect, in many cases in which we freely use the word “see.” Judgment enters, and this is the point of the wax example, even in what might seem the simplest case of knowing.

If something like this reading is correct, then Descartes has good reason not to do what Cordemoy thought needed to be done, namely offer a proof for the existence of other minds. Once we realize that the senses by themselves do not deliver knowledge, what we need to learn

\(^{20}\) AT VII 32, CSM II 21.

\(^{21}\) “To get the problem of other minds going, one would need to introduce the suggestion that, even if we went down into the street and disrobed those figures, we could not rule out” that they were machines (Matthews 1986, 142). In other words, we would need to confront the best case of knowing, and the Meditation Two example surely is not it.
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next is how to exercise our judgment properly so as to avoid committing epistemic sins; we have to, as it were, learn how to “see”. This is the goal of Descartes’ theodicy in Meditation Four and the kind of guidance offered in the *Meditations*, to follow our clear and distinct perceptions, is all the direction we should need. The only reason we would need a further meditation after Meditation Six, as Cordemoy believed, would be if the problem of other minds poses a unique skeptical challenge distinct from the problem of the external world. This, however, seems to be precluded by the conclusions already drawn. Simply stated, there is not a special problem of other minds because the manner in which I come to know that there are other minds is the same manner in which I come to know that this is a piece of wax, or that this is a human being.  

[Now you might be asking yourself: is it really true that Descartes believes that we can have clear and distinct perceptions of other minds in the same way I can have, say, a clear and distinct perception of this piece of wax? I am not sure what to say here in part because I am not sure we have a clear and distinct perception of particular bodies such as this piece of wax.]

To this point, in discussing the various passages from the *Meditations*, I have argued both that the problem of other minds does not occur to Descartes and that there is no pressing need that it should. Descartes has every reason to think the problem of other minds comes in and goes out with the same tide as the problem of the external world. Gareth Matthews, who has written on a number of occasions about the history of other minds skepticism, similarly fails to see the problem in the *Meditations*. In a revisionist moment, however, Matthews finds the makings of an answer to the other minds skeptic in part five of the *Discourse on Method*. Such a strategy puts him in the company of Cordemoy as well as other early Cartesians, but in the remainder of this section I argue that an answer to the other minds skeptic is not present in the *Discourse*. Further, I will be suggesting that the problem of other minds does not occur in this work either.

In the relevant portion of the *Discourse*, Descartes is summarizing the mechanical physiology (or theoretical medicine) contained in his then unpublished *Treatise on Man*. Going

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22 Fred Dretske makes precisely the same point in his effort to “demote” the problem of other minds in Dretske 1973. He does not cite Descartes as an earlier proponent of his view, but I think he should have.

23 I do not directly challenge any of these authors because they take too many liberties with the text of the *Discourse* (though in fairness their reading is supported at various places in Descartes’ *Correspondence*). I hope my own reading speaks for itself.
beyond a summary of the extant portions of the *Treatise*, however, Descartes ventures explicitly into the subject of animal souls. He writes of having made “special efforts,” in a (now lost or never written) work:

> to show that if any such [purely physical] machines had the organs and outward shape of a monkey or of some other animal that lacks reason, we should have no means of knowing that they did not possess entirely the same nature as these animals; whereas if any such machines bore a resemblance to our bodies and imitated our actions as closely as possible for all practical purposes, we should still have two very certain means of recognizing that they were not real men.\(^{24}\)

Before proceeding to the “means,” we should notice from the start two things. First, Descartes is setting up the discussion on the assumption that we know from the beginning that we are considering machines that only bear “a resemblance to our bodies.” Thus, we know from the start that they are not human beings, that they lack minds, and that they are different from us in their “nature.” In light of this, what should we expect the “means of recognition” to really provide us? Surely Descartes is not addressing the problem of other minds; there is no doubt about whether or not the machines being considered have minds. Instead, he seems to be addressing what these machines will eventually fail to do. He is offering us a thought experiment to reveal what machines that lack minds will be unable to accomplish. This is the second thing to notice. Insofar as Descartes is seeking a means of recognition he is not seeking to give us criteria or evidence that a mind is present in a given body, but only that one is not present. Unless something in the subsequent passages from the *Discourse* suggests otherwise, this is all we should expect to find.

Turning now to the “means” themselves, Descartes provides us with two in the *Discourse*, though really I think there is just one. First comes the so-called language test:

> We can certainly conceive of a machine so constructed that it utters words, and even utters words which correspond to bodily actions causing a change in its organs, (e.g. if you touch it in one spot it asks what you want of it, if you touch it in another it cries out that you are hurting it, and so on). But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest of men can do.\(^{25}\)

\(^{24}\) AT VI 56, CSM I 139-40.

\(^{25}\) AT VI 56-7, CSM I 140.
In this thought experiment the machine under consideration is presumed to resemble us so exactly that not only does it look like us, it sounds like us, and it even responds to external stimuli in the same way as us. But, says Descartes, this is only possible because of specific changes in its organs. The point at which the resemblance ends is the point at which meaningful language use begins. It is hard, I think, to understand exactly how this test could help us recognize machines, for what machine fitting the initial description will not be able to answer one or two questions? Moreover, the claim about conceivability seems to presume that no amount of appropriate response from a *machine* could suggest “meaningful” language use. In any case, Descartes proceeds immediately to the adaptability test:

> even though such machines might do some things as well as we do them, or perhaps even better, they would inevitably fail in others, which would reveal that they were acting not through understanding but only from the disposition of their organs. For whereas reason is a universal instrument which can be used in all kinds of situations, their organs need some particular disposition for each particular action; hence it is morally impossible [*moralement impossible*] for a machine to have enough different organs to make it act in all the contingencies of life in the way in which our reason makes us act.

Animals, and machines more broadly, are quite successful at performing actions their organs and parts are disposed to perform; they are, however, not as successful at actions outside of their pre-set performance range. By contrast we, who possess reason, are able to act well outside our body’s design specifications; we act in creative ways. At least this seems to be Descartes’ meaning when he calls reason a “universal instrument” in contrast to the particular instruments we find in mere machines.

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26 This is as true of us as it is of the machine duplicates Descartes is imagining. In the *Description of the Human Body* he writes that, “the soul cannot produce any movement in the body without the appropriate disposition of the bodily organs which are required for making the movement.” Descartes even goes on to say, “when all the bodily organs are appropriately disposed for some movement, the body has no need of the soul in order to produce that movement” (AT XI 225, CSM I 315).

27 The originality of this first test was challenged by the seventeenth-century anti-Cartesian Pierre-Daniel Huet, who writes, “When [Descartes]… taught that man is distinguished from the animals by speech, this had already been taught by Pythagoras, Plato, Cicero, Quintilian, Galen, and others” (Pierre-Daniel Huet 2003, 221).

28 AT VI 56-7, CSM I 140.
If the two “means” passages are read in isolation, a not implausible reading might interpret Descartes as responding to the challenge of segregating machine look-alikes from real human beings purely on the basis of what we know about their observed behavior. One could of course accomplish the same goal by segregating the real human beings from the machine look-alikes, but this is not how Descartes proceeds. While not prima facie implausible, I do not think this reading can be correct. Recall that throughout his discussion in the Discourse Descartes is assuming that all living human beings, his “real men,” have minds. Given how he introduced the discussion of the two tests, Descartes further presumes that we already know we are not dealing with human beings, and this is prior to any application of the tests. Are we to really believe that Descartes is offering his tests to help us learn something we already knew from the start? If the answer is no, then the thought experiments are best understood, I suggest, as clarifications of something we already know. Specifically, the two tests offer an illumination of what animal intelligence and mechanical behavior amounts to, namely pre-programmed and predictable behavior.

Yet, what if we insist that the tests are meant to serve as criteria or evidence for segregating machines from real human beings? I think the implications of such an interpretation are wildly unattractive. For example, as I asked above, what sufficiently complex human body look-alike would not be able to answer 1 or 2 questions appropriately? And why limit ourselves to 2, why not 100, or 1000, or however many finite questions a person answers in a lifetime? Surely there is no principled reason to believe that a sufficiently complex machine with a sufficiently complex set of organs and dispositions could not pass these kinds of tests. And, even if it could, the spirit of Descartes’ remarks would seem to indicate that even then we still would not be in the presence of a mind.

Similarly, what about the case of the human being who refrains from speaking or lacks a “tongue or organs of voice?” As with any capacity or ability, language capacity need not be actualized at all times, and it certainly need not be actualized in communicative behavior. I take it that considerations such as these explain why Descartes did not argue in the Discourse that passing the tests – answering, say, 100 questions – warrants our belief that a mind is present in a body. But even if my reading of these passages is too conservative, and one could cite textual support for a stronger reading in the Correspondence, as I will do in a moment, Descartes would surely be wise to limit himself in the ways I have been suggesting. His concession to “moral
impossibility” is, after all, only a concession on the kinds of machines we could create. It is not a constraint on God’s creations, for which there is no “metaphysical impossibility” standing in the way of a universal material instrument. Insofar as this door remains open to machines satisfying Descartes’ apparent tests, they should not be taken as tests for the existence of other minds.  

III. Having now dispatched the most prominent texts associated with the problem of other minds, we are left with only one. It comes from the same late letter to Henry More cited in the previous section, although this time the issue is not about the attributes of material substance. Rather, the subject under discussion is part five of the *Discourse* and the existence of animal souls. In an earlier exchange with More, in what could be (mistakenly) interpreted to run against his better judgment from the *Discourse*, Descartes speaks boldly about the results of the language test:

…speech is the only certain sign of thought hidden in a body. All human beings use it, however stupid and insane they may be, even though they may have no tongue and organs of voice; but no animals do. Consequently this can be taken as a real specific difference between humans and animals. 

More responds with what seems a devastating counterexample:

But neither do infants, at least for many months, while during that time they cry, laugh, have fits of anger, etc. Nevertheless, I assume you would not deny that infants are alive and possess a thinking soul.

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29 I confess to not being entirely satisfied with my reconstruction here. One might, for example, counter that the tests establish with “moral certainty” that the human bodies passing the tests possess minds. Notice, however, that even if this is the correct reading one might object that the certainty we have with respect to any particular existential claim about the nature of what we perceive – e.g. this is a piece of wax, this is an animal, this is a human being – is always moral certain. This would be yet another way in which the problem of other minds cannot be distinguished from our more general epistemic predicament, as noted in section one.

30 Descartes to More, February 5, 1649, AT V 278, CSM III 366.

31 Nec infants ulli, per aliquam multa saltem mensium spatial, quamvis plorent, rideant, irascentur &c. Nec diffidis tamen, opinor, quin infants sint animati, animamque habeant cogitantem. (More to Descartes, March 5, 1649, AT V 311)
More is slightly confused about what Descartes’ mechanical physiology implies about life, but he cuts to the quick on the language test. If the “only certain sign” that a mind is present in a body is that the living functioning body uses speech, what are we to say of infants? How do I know that other minds exist if the language test (the only criteria or evidence available that they do) is ineffectual? In other words, we are dealing with the problem of other minds.

Here is Descartes’ answer:

Infants are in a different case from animals: I should not judge that infants were endowed with minds unless I saw that they were of the same nature as adults [*eiusdem naturae cum adultis*]; but animals never develop to a point where any certain sign of thought can be detected in them.

This appears to be a terrible response and a case of Descartes begging the question. If we interpret having the “same nature” as sharing an essence, then Descartes just seems to be saying that infants are people, and therefore they have minds, case closed. Margaret Wilson puts the trouble with this interpretation succinctly:

The claim that More meant to support by the example of infants is just that there is no strict correlation between evident linguistic competence, and ascriptions of mentality that Descartes himself would endorse. Descartes’ answer does not address this implication.

In order to save Descartes, the trouble Wilson identifies would have to be overcome. More and Wilson will need to be wrong in the way they understand the language test.

But I think they are wrong. The interpretation I offered in the previous section for those passages of the *Discourse* in which Descartes first introduced the language test suggests a possible alternative, but I confess that some massaging of Descartes’ earlier correspondence with More in which he talks about language being the only “sure sign” of thought would be required. Amid all this confusion, however, there is a decent answer to the other minds skeptic, and one, I

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32 Unlike the concerns I raised at the close of the previous section, More’s question challenges Descartes to deal with a case in which a mind is hidden by virtue of failing the language test, as opposed to a machine without a mind passing the test. This looks very much like the problem of other minds. How do I know that other minds exist if my evidence that they do can so obviously fail?

33 Descartes to More, April 15, 1649, AT V 345, CSM III 374; emphasis added.

34 Wilson 1999, 498.
think, partially suggested by Descartes’ apparent unwillingness to engage with the problem of other minds. In the remainder of this section I want to explore this possibility.\footnote{With the sole exception of Alan Gabbey, I know of no commentators who have taken the response to More to hold any promise (See Gabbey 1990). The reconstruction I offer is indebted to Gabbey’s reconstruction of Descartes’ position. One place where we differ, I think, is how we understand the prospects for a “substantial union” of mind and body and the materialist character of a complexion.}

The key bit of text is the one underlined in Descartes’ response and already discussed in part: “I saw they were of the same nature as adults \([\textit{eiusdem naturae cum adultis}]\).” What conception of “nature” is Descartes working with here? Is it merely essence? Is there some way to understand Descartes as not begging the question? In order to answer these questions we should look to the one place in Descartes’ corpus where he reflects on the various meanings of “nature.”

In Meditation Six Descartes identifies three senses of “nature,” none of which can be equated simply with essence:

> For if nature is considered in its general aspect, then I understand by the term nothing other than God himself, or the ordered system of created things established by God. And by my own nature in particular I understand nothing other than the totality of things \([\textit{complexionem eorum omnium}]\) bestowed on me by God.\footnote{“…per naturam enim, generaliter spectatam, nihil nunc aliud quam vel Deum ipsum, vel rerum creatarum coordinationem a Deo institutam intelligo; nec aliud per naturam meam in particulari, quam complexionem eorum omnium quae mihi a Deo sunt tribute” (AT VII 80, CSM II 56).}

The sense of “nature” brought to bear in the letter to More is surely the second of these two. The key phrase I have preserved in the original Latin because in the now standard Cottingham et al translation the word “\textit{complexionem}” is completely missed. The Cottingham translation is not alone, however. The Cress translation does better by at least attempting a translation, but it too fails us:

> … for by “nature,” taken generally, I understand only God himself or the coordination, instituted by God, of created things. I understand nothing else by my nature in particular than the totality of all the things \([\textit{complexionem eorum omnium}]\) bestowed on me by God.” (Meditations, Cress trans.)

By choosing “totality” for “\textit{complexionem}” Cress is taking \textit{complexio} to mean complex or collective whole. In order to see why this too is a misrepresentation we would do well to
consider two seventeenth-century translations of the *Meditations*. In the 1646 French translation, which Descartes partially oversaw, “*complexionem*” is rendered as “*complexion*” effectively preserving it by leaving it untranslated. Molyneux’s English language translation of the *Meditations* opts for the same strategy, rendering “*complexionem*” as “complexion.” The precedent set by these earlier translations suggests an appropriate amendment to Cottingham might be the following: “by my own nature in particular I understand nothing other than the *complexion* [or complexion] of all those things [*complexionem eorum omnium*] bestowed on me by God.” Yet as modern readers this does not really help us because we still need to know what a *complexio* is if not a totality or a complex.

To clarify the sense of nature at stake in the passage from the *Meditations*, and in the letter to More as well, we need to understand where the word *complexio* came from, and to do this we need to go back to the resurgence of Greek and Latin learning at Salerno during the eleventh-century. In order to resolve interpretative and terminological difficulties coming from the newly discovered work of Galen and the competing translations and commentaries on his and Aristotle’s natural philosophy, professors at Salerno had to make definitive choices to achieve terminological clarity. In one case in particular they turned to the *Pantegni*, a translation done by Constantine of Africa of an extensive Arabic medical encyclopedia of the tenth-century. *Complexio* appears for the first time in the *Pantegni* and the professors at Salerno embraced it to refer to the temperaments, i.e. the mixture of qualities that characterize the temperament of species and individuals; it corresponds to the Arabic *mizāj* which is a translation of Galen’s *crasis*.

The idea behind temperament or *complexio* is that the elements – fire, air, water and earth – each possess unique qualities – fire is hot and dry, air is hot and moist, etc. – and the mixture of these elements results in a mixture of primary qualities. Since all natural bodies are mixtures of pure elements, knowing the *complexio* of a body amounts to knowing its natural balance of primary qualities. Such knowledge was central to Galen’s scientific medicine, which proceeded on the assumption that the natural balance of primary qualities was the healthy state of an individual. As late as the seventeenth-century *complexio* and its vulgar language cognates still carried the same connotation with a clear emphasis on bodily constitution. The first definition of

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37 A number of English editions can be found online at Early English Books On Line, but a copy is also contained in the appendix to Gaukroger 2006, 237.
the French “complexion” in the *Dictionnaire de L'Académie française* of 1694 read simply, “temperament, constitution du corps.” Similarly, a French-English dictionary from 1632 rendered “complexion” in the first instance as: “The complexion, making, temper, constitution of the body.”

This shows quite definitively that “complexio” carried a specific meaning in the seventeenth-century stemming from its place in the medical tradition. Descartes was well acquainted with this tradition, and he would surely have expected his readers to recognize the import of *complexio*. To return then to the issue that set us going, of what the nature is that we share with infants, the answer would seem to be that we share the same *complexio*, the same physical bodily constitution. If this is right, then the appropriate follow-up to More’s initial question is: how could citing a shared physical constitution help us conclude that infants have minds even though they display no apparent signs of mentality? How, in other words, could the mere presence of a body, even of a very specific kind, necessarily imply anything about the existence of a mind? Since the mind and body are really distinct substances, how could identifying the right *complexio* help?

Before I answer this question it should be noted that I am about to suggest Descartes does not have the right conception of the human body to adequately motivate the problem of other minds. You will recall that earlier, in section one, I argued that it is not enough to admit to an asymmetry between the way in which I come to know I exist as a thinking thing and the way in which I come to know you exist in order to account for the emergence of the problem of other minds. But if I am right, then more is required. The right conception of the human body must allow us to understand the mind-body problem as a problem of the mind as such. The right conception of the human body must allow us to see that the existence of a body will imply nothing about the existence of a mind.

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38 This dictionary, and a number of others from the early modern period, can be searched at [http://www.lib.uchicago.edu/arts/ARTFL/projects/dicos/](http://www.lib.uchicago.edu/arts/ARTFL/projects/dicos/).

39 This is the definition from Randle Contgrave’s *A Dictionary of French and English Tongues*, also available from Early English Books On Line.

40 Descartes obviously had his own matter theory, a theory quite different from Galen’s and Aristotle’s, but I see no reason to reject the idea that a *complexio*, even for Descartes, can characterize members of a species in terms of their physical constitution. For more on Descartes’ knowledge of medicine see my dissertation, soon to be available for download from Proquest Dissertation and Thesis, or Vincent Aucante’s just released study Aucante 2006.

41 In a letter to Henricus Regius that has been the subject of considerable dispute among commentators, Descartes appears to say that the existence of a body will imply nothing about the existence of a mind: “[W]hen we consider the body alone we perceive nothing in it demanding union with the soul, and nothing in the soul obliging it to be united to the body” (AT III 461, CSM III 200).
minds. Cordemoy took the relevant question to be whether the bodies “that are in all things like mine” have minds, and this clearly presumes a very specific conception of bodies. What is needed is a conception of human bodies as living functioning bodies about which there is an *open question* as to whether they have minds; perhaps some do and some do not, this is what is needed. Descartes’ answer to More, and ultimately the significance of our human *complexio* I am about to outline, suggests that Descartes ultimately lacks the necessary conception of the human body.\(^{42}\)

Now for the promised answer to the other mind’s skeptic, which appeals to our membership in a biological species.\(^{43}\) The first thing to notice about the human *complexio* is that there is nothing supernatural about it. We derive it from our parents, who derived it from their parents, and so on as a result of the natural propagation of members of our species. In this we are no different from any other living thing (not spontaneously generated) produced according to the laws of nature. But, of course, Descartes does not think any of these others have minds. What distinguishes us, as living things, is that in the beginning God ordained that material beings with our *complexio* would be given minds or rational souls. Thus, from the beginning our species was different. And how do we know this? There are, I think, two ways in which we know it, but let me emphasize only one.

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\(^{42}\) Such a conception may appear in Descartes’ mechan*ical physiology*, but I think such a reading is not without its problems. Remember that in the *Discourse* Descartes sets up his discussion of animal souls in such a way that we are not in doubt about the mere human bodies having minds. There is no open question, and something similar can be said about the way in which Descartes proceeds to develop his mechanical physiology, as the opening paragraph of the *Treatise on Man* illustrates:

> “These men will be composed, as we are, of a soul and a body. First I must describe the body on its own; then the soul, again on its own; and finally I must show how these two natures would have to be joined and united in order to constitute men who resemble us. I suppose the body to be nothing but a statue or machine made of earth, which God forms with the explicit intention of making it as much as possible like us.” (AT XI 119-20, CSM I 99)

One should also notice, as Canguilhem does, that all four of Aristotle’s causes are deployed in order to motivate the mechanical physiology in this passage, but this is the topic for another time (Canguilhem 1998, 112-13).

\(^{43}\) This is the answer Alan Gabbey wants to endorse as well, although he reads *complexio* more expansively than I do, to already include the mind. There is some precedent for answers like the one Gabbey and I prefer, specifically in Augustine, but in his work we find not an appeal to revealed religion but to our own individual standing as an exemplar of our species. Effectively a second way of knowing our species is different, Augustine advances a general non-behavior specific argument from analogy (See Gabbey 1990 and especially Matthews 1998 and 1999 for such an interpretation of Augustine).
We can know it on the basis of the most authoritative guide available regarding our origins, Genesis 2:7. “Then the LORD God formed a man from the dust of the ground and breathed into his nostrils the breath of life. Thus the man became a living creature.” It is our unique privilege that the first member of our species was made by God not simply as a living thing, but also as a thinking thing.

Why is all this relevant? God privileged the human complexio in his initial act of creation, and this act still resonates today because God’s willing never changes. It is for this reason that Descartes fails to see an infant’s body as an unthinking machine. As he wrote to More, “I should not judge that infants were endowed with minds unless I saw that they were of the same nature as adults.” In other words, the infant’s having been naturally propagated assures us that she has a mind. More wanted to know about the viability of the language test as a way to respond to skepticism about other minds. Descartes, however, was more interested in what the origin of a body tells us about its nature. Once we confirm a shared complexio with Adam, we must judge that God has given everyone with this complexio a mind of her own. From Descartes’ point of view we can be as confident about this as we can be about anything else that relies on our understanding of God’s nature and activity in the world.

Let me offer one further piece of textual support for my rendering of Descartes’ position vis-à-vis the human body. Writing in 1641 to his disciple Henricus Regius Descartes says the following: “… if the body has all the dispositions required to receive a soul, which it must have to be a strictly human body, then short of a miracle it must be united to a soul.” This is precisely what Descartes is trying to convey in his reply to More. By virtue of their complexio infants have “all of the dispositions required to receive a soul,” so they must have a soul or mind. For Descartes there is simply no room for a fully functioning living human body without a mind.

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44 Descartes’ views with respect to God’s act of creation and willing are very complicated. It is, however, fair to say, as I imply above, that while God’s act of creation is itself free and unconstrained, after the initial act of creation God’s relationship to his creation never changes. It is for this reason that Descartes can derive the laws of nature from God’s nature and that he can be certain that these laws have universal application.

45 Following a suggestion made by Alan Gabbey, this might seem more plausible if instead of the authority given to the bible and God’s uniform activity in the passage above we give authority to the evidence of evolutionary biology and the regularity of physical events. This way it is our collective membership in a species the first member of which had a mind, coupled with the natural propagation of our species, that informs a Cartesian answer to the other minds skeptic.

46 Descartes to Regius, December 1641, AT III 461, CSM III 200.
in the created world. Once our doubts about the existence of God are put to rest, something which occurs in the course of resolving the problem of the external world, it is metaphysically impossible that we will find human bodies without souls. In other words, it is metaphysically impossible that God could change the precedent he set with Adam. Whether or not this means that the essence of the human body somehow includes the mind is difficult to say, but in a sense it does not matter; in this world a human body and a human mind are always found together.

**Conclusion**

[Had this section been included you would have seen me reasserting the historiographical point with which I began and saying that the history of early modern philosophy still has a great deal to learn from the history of medicine]
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