

1797 33. Annotated Excerpts from Cordemoy's Treatise¹ Aiv346

[1685]²

I. On the First Discourse³ Aiv346₁

1798 From Cordemoy's treatise On the Distinction between Body and Mind

Almost all the errors of common physics arise from the fact that the nature of body and mind and the distinction between them are not known sufficiently clearly.

Body is extended substance, and accordingly (since there are many such bodies), they are limited, i.e. endowed with shape; and since each body is a unique and self-same substance, for this reason it can neither be divided, nor can its shape be changed, nor can it be penetrated.

Matter is an assembly of many bodies; if several bodies are considered as united together, they are called a portion of matter; if there is no union among them, a heap; if they flow among themselves changing places with each other, a liquid; if they are connected together by little hooks of some kind, or move so little that they cannot easily be separated, a mass.

A body cannot have parts, but matter can. The idea of extended substance, however, is very clear; but it is wrongly confused with the perceptions we have of matter. Not everything that is extended is divisible.

¹ These two pieces contain extracts made by Leibniz from Gerauld de Cordemoy's On the Distinction between Body and Mind, together with Leibniz's comments on them. The treatise was originally published in French as Six Discours sur la distinction et l'union du corps et de l'ame in 1668, and then in the Latin edition of 1679 as the first of "Two Treatises on Physics", Tractatus Physici duo. I. De Corporis et Mentis Distinctione, from which Leibniz is here excerpting. (The second Latin treatise, II. De loquela ("On Language"), does not concern us here.) The first of Leibniz's pieces is a précis, with dissenting comments, of the First Discourse of Cordemoy's treatise (titled "On Bodies and Matter"); the second concerns a point in the Third Discourse. I have broken up the first piece into paragraphs, and supplied emphases, in accordance with Cordemoy's original.

² The well confirmed watermark of the first piece gives 1685, and the second piece appears to be a direct continuation of it. Also, see Leibniz's comments on Cordemoy's treatise in a letter to Arnauld of December 8, 1686 (G.ii.78)

³ LH IV 6, 12f, leaf 5. 1 leaf in quarto, 1³/₄ pages; edited for the Vorausedition by Martin Schneider as Ve157: 695-697 (Fascicule 4, 1985). Previously edited by Pierre Clair and François Girbal in Gerauld de Cordemoy: Œuvres Philosophiques, Paris: Presses Universitaires de France, 1968: Latin text: pp. 362-364; French translation pp. 364-367.

Considering things not as they appear, but as they are, there is extension in matter only because each of the bodies it consists of is endowed with it; and a mass is therefore divisible because it is composed of parts which are different substances. (+ It is noteworthy that not only the common Cartesians, who call everything that is extended divisible, but even the semi-Gassendist Cordemoy, who deems every substance indivisible and truly one, appeal to ideas. On my view it turns out they are both right: for if all organic bodies are animate, and all bodies are either organic or collections of organic bodies, it follows that indeed every extended mass⁴ is divisible, but that substance itself can neither be divided nor destroyed. +). Without these considerations, the principles of physics cannot be recognized.

There is a widespread custom of confounding matter with bodies (+ extended substances +). It is true that a body is an extended substance, but false that matter is a substance. For every single substance is in its very self indivisible (+ the most distinguished gentleman has confused and seen through a cloud a truth he could not accurately demonstrate +), and if its nature is founded in extension as soon as it is conceived as extended, then it must be admitted that since it is the same thing in all its extremities, none of its extremities is separable from another.⁵ (+ By the same argument he would prove that the human body cannot be divided either, because the soul exists one and the same in the whole body. That is to say, he has made the mistake of not acknowledging that there is something in corporeal substance besides extension; something, to wit, from which the very notion of substance might arise, which extension alone cannot give: this being the power or potential of acting and being acted upon, in compliance with the widely received axiom that actions belong to subjects.⁶ +).

⁴ "Extended mass" here translates moles (see GLOSSARY); Leibniz had originally written extensionem (extension).

⁵ In the original, Cordemoy says "none of its extremities is separable from it" (Six Discours sur La Distinction & l'Union du Corps & de l'Ame, Premier Discours: Œuvres Philosophiques, ed. Clair & Girbal, p. 98.)

⁶ Sc. actiones sunt suppositorum. See note under suppositum in GLOSSARY

Of those I have heard discussing matter and body as if they are one and the same thing,⁷ I have not been able to find anyone who could explain to me his own mind on this subject, even when I was willing to suppose with them that substance is divisible, which is repugnant to the natural light.⁸ When I asked whether substance was divisible to infinity, they would deny this, and say that it was indefinitely divisible; but this indefinite divisibility they explained in the same way as infinite divisibility. And although in the end they would candidly admit that in this subject there are things which exceed the grasp of men, they would still say that it was necessary for it to happen this way.⁹ However, there does not seem to be the same obscurity in what I propose.

A second inconvenience in this contrary opinion [of the Cartesians] is that they cannot form a concept of a separate body without conceiving motion. Nor, according to their doctrine, can one conceive a body to be at rest among other bodies, for if it is in contact with the other bodies, then by this very fact it is forged into one and the same body with them (+ unless the contact is at a point. But these are difficulties for Cordemoy himself: let us suppose two triangular atoms come into contact and compose a perfect square, and that they rest next to each other in this way, and let there be another corporeal substance or atom, a square one equal to the composite of the latter two. I ask, in what respect do these two extended things differ? Certainly no difference can be conceived in them as they are now, unless we suppose something in bodies besides extension; rather they are distinguished solely by memory of their former conditions, and there is nothing of this kind in bodies.¹⁰ How can they become different

⁷ Here Cordemoy is referring to the Cartesians.

⁸ —reading lumini naturali with Clair and Girbal for the Akademie's menti naturali. For Descartes's doctrine of the "natural light which is in our souls," see his Principles of Philosophy I, §§ 11, 18, 20, 28.

⁹ See Descartes, Principles I, §§ 33-35, given in Appendix 2c.

¹⁰ This is almost identical to the argument Leibniz put forth in Meditatio de principio individui (DSR 8; Aiii67: 490-1): "it is impossible for two squares of this kind to be perfectly similar, since although they will consist of matter, that matter will have a mind, and the mind will retain the effect of the prior state". See also the similar argument in Aiv278: 1464-5 above, and accompanying footnote (3).

in themselves afterwards, as in the case where they are struck by some third body in such a way that that one breaks into parts and the other does not? This is a difficulty for all atomists, and obliges one to admit that there is something else in matter apart from extension +). Meanwhile, we do have a perfect idea of a body at rest among other bodies.¹¹ (+ We have an image [of it as at rest]; suppose we imagine body to consist in¹² an extended substance whose nature it is to be moved, the phenomena will be the same as now, and we will still be able to imagine it at rest; in short this is an imagination, of the sort people have when they say they can conceive a vacuum +).

A third inconvenience is that it will follow from this that no moment can be conceived at which a body could conserve the same magnitude and shape. This is because a body is pushed by various bodies in different directions, and is divided in as many ways as it is pushed, and the parts that have separated from it, being pushed back against those which remain, so divide them that no limit of the division can be conceived. And if a square body be supposed to turn around its own center, even though they say that as many parts join back together as are destroyed, one easily falls back into the inconvenience that the body will not remain the same. The same people are forced to suppose, while philosophizing, that many bodies are not actually divided for some time (+ No, they are forced to maintain no such thing +).¹³

On the other hand, we are driven by nature to conceive body as indivisible, and to conceive our own body, itself composed of innumerable bodies, as one, since all its parts so cooperate towards one end that they cannot be divided without doing violence

¹¹ The full sentence from Cordemoy's treatise précised here by Leibniz is: "However, it seems to me that we have a very clear and very natural idea of a body perfectly at rest among other bodies, none of which is in motion, and that what I say of each body accords perfectly well with this idea." (Cordemoy Six Discours, Clair & Girbal, p. 99.)

¹² This is an extremely difficult passage to translate. I have interpreted Leibniz's creare as an error for constare. I take the gist of this criticism of Cordemoy to be that he mistakes a clear image for a clear concept (in this connection cf. Aiii19); one can conceive a body as something whose nature it is to be moved and still perceive the same thing (and have an image of it in one's mind) as if rest were its natural state.

¹³ Descartes supposed in his Principles that some bodies remain undivided (see Appendix 2c); but Leibniz's reasons for denying that one is forced to suppose this are well expounded in Aiv278 above.

to their system of operation. And legal experts call body whatever cannot be divided without being destroyed¹⁴ (+ No, they do not call them bodies, but species. +), whereas they call quantity a collection of things which subsist independently of each other, such as wheat, wine or oil.¹⁵

Evidently it is by a natural idea that one represents body as an indivisible thing and matter as a divisible one. However, a body is not divisible just because we can think of one of its extremities without the others; instead, it is necessary for a body, by the very fact that it is extended, to have several extremities; and from this it is rather to be concluded that they are inseparable because they are extremities of the same thing.

Moreover, as extension is properly applicable to body, so is quantity to matter (+ Why shouldn't there also be quantity of extension? [+]).

It is not necessary for all intervals to be full of bodies. I do not agree with those who maintain that if the contents of a vessel were destroyed, the sides would join back together,¹⁶ for I do not understand what one body contributes to the subsistence of another (+ On the contrary, all substances are co-requisites of each other [+]).

Substances will not have distance, but situation. (+ It is necessary that situation or relation be founded in something; if you say, on a possible interposition,¹⁷ then I say

¹⁴ Cordemoy gives as examples "a horse, a slave."

¹⁵ Leibniz had mistakenly inserted a '+' here. This is the first of three errors he made with his parentheses in this part of the text. He also forgot closing parentheses after the remarks ending "... et quantitas extensionis." and "... sunt correquisitae." (The Akademie editors wrongly corrected the last error by omitting the opening parenthesis of "(+ Necesse est situm ...", thus attributing Cordemoy's statement 'Distantia non erit substantiae, sed situs.' to Leibniz.)

¹⁶ Again, Cordemoy's target is the Cartesians. In Part 2 of his Principles, Descartes wrote: "if someone asks what would happen if God were to take away every single body contained in a vessel, without allowing any other body to take the place of what had been removed, the answer must be that the sides of the vessel would, in that case, have to be in contact. For when there is nothing between two bodies, they necessarily touch each other" (AT VIII.1, 50; CSM.i.231).

¹⁷ Cordemoy had written: "And although one might say that between two bodies which are not touching one could put other bodies of a length of so many feet, one should not conclude on that account that there were any there. One should only say that they are situated in such a way that one could place between them bodies which, when joined together, would compose one extension of so many feet. Thus one conceives only that one could place bodies: but one does not conceive on that account that they are there" (Cordemoy, Six Discours, Clair & Girbal, p. 103).

this possible interposition must in turn be founded on something already then actual
+).¹⁸

II. On Animated Machines¹⁹

Aiv346₂

Form cannot be denied to something having an orderly arrangement: This is an axiom some people deem to be so certain that they persuade themselves that if they could give a mass the same orderly arrangement that the human body has, a soul would not be lacking in it; and they would say not that they had made a body similar to ours, but a man similar to us. With such a philosopher, if it entered his mind that a clock was animate, it would be difficult to persuade him to the contrary. But, since entities must not be multiplied, it suffices that everything in a clock can be explained by shape and motion.

Thus Cordemoy, Distinctio corporis et animae, Third Discourse.

It seems to me that the axiom is very true, but that no one can build a body perfectly similar to the human one, unless someone can conserve the Order by dividing to infinity. So it is not possible for an angel to fashion a man or any genuine animal, except from a seed, where it already pre-exists in some way. He could make a machine which would perhaps remind you of a man by its outward appearance if you did not examine it well enough, but it would not really be a man or an animal.

¹⁸ Leibniz had continued | Animam introducunt ex illo: dispositionem habenti non denegatur forma |, “| They introduce the soul from the fact that form cannot be denied to something having an orderly arrangement |”, and then crossed it out—presumably because the extract and commentary is continued instead in the note that follows here.

¹⁹ LH IV 6, 12f, leaf 13; a slip of paper 5 by 8 cm.; 1³/₄ pages. Edited for the Vorausedition by Martin Schneider as Ve1572: 698 (Faszikel 4, 1985)