

Organic Body as an Aggregate and Preestablished Harmony in the Later Philosophy of Leibniz

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In a margin of the letter of 17 December 1705 to Giovanni Batista Tolomei, Leibniz added that “the human body is an aggregate (at *corpus humanum est aggregatum*)” (G7 468n cf. Adams 1994, p.241). More generally, all the organic bodies are not substances, but aggregates for Leibniz in this period. Still, it is worth considering what Leibniz meant by the term “aggregate” in the following reasons. First, the term is concerned with the understanding of our bodies and living creatures. Secondly, Leibniz thought that non-organic bodies are aggregates of smaller organic bodies. This world is supposed to be filled with organic bodies, and C.D. Broad characterized Leibniz’s philosophy as panorganism (Broad 1975, p.87 cf. Rutherford 1995, p.201). We can’t study Leibniz’s theory of body without discussing organic body.

In this paper I shall undertake to examine how the ontological status of organic body was explained by Leibniz in 1701-06. My thesis is that Leibniz considered at least two kinds of aggregates (aggregates of simple substances and aggregates of phenomena), and the character of aggregate does not necessarily contradict the continuity of phenomenal organic bodies. Since there have been controversies concerning whether Leibniz thought all substances are simple or not, I attempt in Section 1 of my paper to establish the textual basis for ascribing a simple substance view to Leibniz in 1701-06. Supposing all the substances are simple, even an organic body is an aggregate (*aggregatum*, *aggregat*). In the second part of my paper, I shall confirm that an organic body is an aggregate of simple substances in a sense. Non-extended simple substances can’t be parts of an extended organic body. But when a mind perceives many simple substances that found a phenomenal body, an extended organic body appears as a phenomenon. The third section of the paper will consider an organic body as aggregate of smaller phenomenal bodies. Leibniz mentioned to the character of organic body as aggregate of phenomena in some contexts.

1. The texts in late period

In this section, I shall discuss how we should limit the scope of this paper to a certain period. Before examining some texts of Leibniz, I will mention to controversies concerning Leibniz’s metaphysics of substance. One of the most important is concerning whether Leibniz accepted Aristotelian corporeal substance in his Middle Years around 1686. In the paper “Leibniz and the Foundations of Physics: The Middle Years,” Daniel Garber claimed that an individual substance in Middle Years is extended, and composed of its form and matter (Garber 1985, pp.35-36, cf. Jolley 2005, pp.60-3 Lodge 2005, p.3). On the other hand, Robert Merrihew Adams stated that

Leibniz was an idealist throughout his life, and Aristotelian corporeal substance had never been accepted in the philosophy of Leibniz (Adams 1994, p.262, 306 etc.).

Another problem is on whether Leibniz really accepted the corporeal substance composed by virtue of substantial bond (*vinculum substantiale*)(G2 435), which was first proposed in the letter to Des Bosses of 5 February 1712. Many simple substances (or monads) are said to be united by a substantial bond, and make up one composed substance (G2 457). One example of composed or corporeal substance is a human being with soul and body. Bertrand Russell thought that the idea of substantial bond is a kind of diplomatic concession to Catholic people, one of whom was Des Bosses (Russell 1937, p.152). This interpretation has influenced on many scholars. On the other hand, Alfred Boehm states substantial bond is a product of the most improved and developed philosophy of Leibniz.

This paper does not take one of positions in those disputes. Neither I pursue the concept of corporeal substance in the Middle Years, nor examine the discussions of the composed substance since 1712. Instead, I would like to exhibit the ontological status of organic body as phenomenon in the texts of 1701-06, supposing only simple substances (or monads) are real substances. Though Adams takes a similar position, mine is different in two points. First, he uses the text after 1706 because he clearly denies the substantial bond as a key term of the latest philosophy of Leibniz (Adams 1994, pp.306-7). But I would like to limit the scope of this paper to Leibniz's writings prior to 1706. Secondly, Adams regards a body only as an aggregate of simple substances or monads (Adams 1994, pp.241-61). However, I would like to point out that a body can be taken in two ways in this paper.

More precisely, in this paper, I would like to use the text from 27 December 1701 to 19 January 1706, because Leibniz clearly thought that all substances are simple in this period. The purpose of this paper is to study the status of organic body according to the metaphysics which accepts only simple substances (*substantia simplice*, substance simple)(G2 239, G3 144) or monads as substances. Simple substances in this paper do not have any metaphysical union with other simple ones, and they only correspond to each other. As a result, for example, a soul as a simple substance never united with other substances composing a body by a union (of substantial bond or something).

Then when was the notion of simple substance explicitly proposed? The term "simple substance" was already used in the letter to Hessen=Rheinfels on February 1st (or 11th) 1686 (G2 14). However, because there is a controversy concerning whether Leibniz did only accept simple substances as substances in this period, I would like to avoid citing to the texts in this period. Leibniz began to use the term "simple substance" more often in 1700s. We have to take notice of the passage in the letter to De Volder of 27 December 1701:

I concede that every substance is simple in a certain sense. I say substance, not aggregate of substances (Lodge 223/G2 233) .

Here Leibniz clearly excluded things that are not simple and have parts from the category of substance. And the claim that all substances are simple was confirmed in the letter to De Volder of April 1702.

When I say that every substance is simple, I understand by this that it lacks parts. (Lodge239/G2 239)

His statement is not ambiguous at all, and his position is explicit here. From these texts, we can conclude that at least after 27 December 1701 all substances are thought to be simple.

Next, I would like to propose the reason why I only refer to the texts before 19 January 1706, when the letter to De Volder including the next passage was written. It is because Leibniz never had an idea of metaphysical union of simple substances.

[Tournemine] said that there is one thing he still desires, namely, the reason for the union, something that certainly differs from the agreement. I answered that that metaphysical union, I know not what, that the schools add, over and above agreement, is not a phenomenon, and we do not have any notion of it or acquaintance with it. And so I could not have intended to explain it. (AG 184/G2 281 1706.1.21)

The Jesuit René-Joseph Tournemine published his critic on the theory of preestablished harmony of Leibniz in *Journal de Trévoux* of May 1703. Tournemine asked Leibniz to explain how the system of preestablished harmony can account the union of soul and body better than the Cartesian philosophy. And he proposed Leibniz to admit the metaphysical union that is not introduced in preestablished harmony. This passage from the letter to De Volder shows the negative attitude of Leibniz to this comment. I think it is hard to interpret that Leibniz changed his idea after reading Tournemine's suggestion.

Also, when we read the letters to De Volder from May 1703 to 19 January 1706, it is natural to think Leibniz did not accept the metaphysical union beyond a mere harmony or correspondence of soul and body in that period. For, Leibniz continued to maintain that all substances are simple and without parts, and that all the others are phenomena resulting from simple substances. Leibniz never referred to the metaphysical union of simple substances. Let us examine the texts in detail.

First, in the letter to De Volder of 20 June 1703, Leibniz claimed that only simple things are real and other things are mere aggregates or phenomena (G2 252). And Leibniz emphasized that a monad is not extended at all (G2 253). Also, from the letter of 21 January 1704, we can understand that the reality of matter results from simple beings, that is, simple substances or monads (G2 263). Further, in the letter to De Volder of 30 June 1704, Leibniz stated that there are only simple substances, which have perceptions and appetites (G2 270). From this passage, we can understand that a typical example of simple substance as principle of action is our minds. And only such simple substances exist in a metaphysical rigor.

After that letter, we can hardly find a text from which we could clearly understand Leibniz's position until 19 January 1706. However, Leibniz's persistent statement can be found in the letter of 19 January 1706, in which Leibniz clearly asserts there are nothing real in nature except simple substances and aggregates resulting from

them (G2 282).

Considering those, we should conclude that Leibniz had not modified his system of preestablished harmony from the critique of Tournemine to 19 January 1706.

2. An Organic Body as an Aggregate

In this section, I will discuss an organic body as an aggregate of simple substances. We can understand that even an organic body is an aggregate from the following passage.

If you take mass to be an aggregate containing many substances, you can, however, conceive in it one substance that is preeminent, if that mass makes up an organic body, animated by its primary entelechy. (AG 177/G2 252 1703.6.20)

A human mind is an example of preeminent substance. We cannot find any mind or soul that dominates a non-organic body. There is no mind or soul of desk or chair. On the other hand, in the case of human being, there is only one mind that dominates the whole. Therefore the term “mass” clearly means an organic body, like a body of human being. In fact, more specifically, Leibniz stated that human body is an aggregate (G7 468n 1705.6.20).

Now a mass is “an aggregate containing many substances”. Is it mean that a mass is an aggregate of many substances? It is natural to suppose so, because Leibniz used the term “an aggregate of substances (aggregatum substantiarum)” (G2 239 1702.4 cf. G2 206 1700) several times. But on the other hand, unlike Descartes, Leibniz thought that bodies are not extended substances but phenomena, and emphasized that bodies are not substances many times (G2 252 1703.6.20, G2 262 1704.1.21). Here bodies are essentially different from substances, and one may be tempted to think that a body is not an aggregate of substances, either. So we have to examine whether a mass can be an aggregate of simple substances.

I shall consider how Leibniz explained the relationship between simple substances and extended bodies. Leibniz stated that simple substances are not “parts” of extended bodies, but their “foundations”:

However, properly speaking, matter isn’t composed of constitutive unities, but result from them, since matter, that is, extended mass is only a phenomenon grounded in things, like a rainbow or a parhelion, and all reality belongs only to unities. Thus, phenomena can always be divided into lesser phenomena, phenomena that can be seen by other smaller animals, and we will never arrive at the least phenomena. Substantial unities aren’t really parts, but the foundations of phenomena. (AG 179/G2 268 1704. 6.30)

Leibniz often used the term “unity (unitas, unité)” as a synonym of simple substance or monad (G5 359 1703-5 etc.). Therefore, Leibniz claimed that a phenomenal body is founded by simple substances. Then what is the meaning of the claim that a body is founded by simple substances? Here we have to summarize the theory of

preestablished harmony. There is a brief account of preestablished harmony in a letter to De Volder.

It seems that this is directed against my opinion concerning the preestablished harmony among simple substances, which cannot act upon one another, Nonetheless, they do produce change in themselves. (Lodge 309/G2271)

According to this theory, a perceiving simple substance (e.g. my mind) and a perceived simple substance (e.g. a simple substance that “founds” the body I am looking at) do not act each other. Therefore I do not perceive other substances by direct actions. But when God creates me, God made me perceive in the way that all my perceptions correspond to other created substances’ perceptions.

Consequently, the body of someone whom I perceive is an expression of simple substance, that is to say, his mind. The parts of that body correspond to many simple substances which are dominated by his or her mind. The theory of preestablished harmony guarantees the correspondence between a phenomenal body and simple substances or monads, and differentiates Leibniz’s philosophy from the idealism of Berkeley.

On the other hand, an organic body is not one substance. Indeed, there is only one preeminent substance in an organic body as an aggregate of simple substances. But this preeminent substance does not assimilate other substances. Other subordinate simple substances exist independently as such. In this respect, it is concluded that even an organic body is an aggregate.

3. Organic Body as an Aggregate of Phenomena

Leibniz used the term “aggregate” and “phenomenon” interchangeably.

The forces that arise from mass and speed are derivative and belong to aggregates, i.e., phenomena. (Lodge 263/G2 251)

But in phenomena or aggregates, all new change derives from the collision of bodies in accordance with laws prescribed, in part, by metaphysics and, in part, by geometry, for abstractions are needed to explain things scientifically. (AG 177/G2 252 1703.6.20)

There is another relevant passage. Leibniz used the term “phenomena of aggregates (phaenomena aggregatorum)” (G2 250 1703.6.20) and “appearances of aggregates (apparentiae aggregatorum)” (G2 251 1703.6.20). Here the term “aggregate” may mean an aggregate of simple substances which is different from a phenomenon. But the genitive “aggregatorum” may describe the character of phenomena, which are identical to aggregates of simple substances. We cannot decide whether phenomena are necessarily identical to aggregate of simple substances from that passage. Now, if an aggregate of simple substances is perceived, then phenomena correspond to it will appear. That

is to say, Leibniz seems to think about the phenomena of the aggregates of simple substances. Here Leibniz seems to distinguish “appearances” from “aggregates.” If a phenomenon were identical to an aggregate of simple substances here, an aggregate of phenomena would be an aggregate of aggregates of simple substances, and therefore an aggregate of substances. In this case, there wouldn’t be any significance in the distinction between an aggregate of simple substances and that of phenomena. This way of understanding seems to be less coherent with ordinary sense of “phenomenon.” A phenomenon is something appears to us, and being an aggregate of simple substances seems not to be an essential feature of phenomena. And there is a discussion that supports that way of understanding of phenomena. Leibniz stated that if God wills, He can destroy all the substances except Leibniz, and he would be left as only one created substance (G4 530 1705). In this case, all the affections and modifications of he soul would be preserved. Everything would occur to Leibniz as if the bodies actually existed, but in fact all experiences would be like dreams. What appears to Leibniz would have no correspondence to other created simple substances. Here Leibniz did not use the term “phenomena,” but if we can call what appears to Leibniz a phenomenon in that case, then we can understand that the notion of phenomenon do not necessarily establish the existence of simple substances. Phenomena have the reality founded by simple substances only if they correspond to simple substances.

Now, if “an aggregate of phenomena” is necessarily identical with an aggregate of simple substances, the term “aggregate” is applied to something other than simple substances. Is this kind of application possible? One may think that all aggregates are aggregates of substances, because all entities have to be explained based on simple substances or monads. Here we have to examine the text that shows how the term “aggregate” is used. An argument in the letter to De Volder implies that the term “aggregate” can be applied to something other than a group of substances.

First, that which can be divided into many is constituted, i.e., aggregated, from many. *Second*, things that are aggregated from many are not one thing except from a mind, and they have no reality except that which is borrowed, i.e., that is from the things from which they are aggregated. therefore, *third*, things that can be divided into parts have no reality unless there are things in them that cannot be divided into parts. (Lodge 285-7/G2 261)

The first claims implies that that which is divisible is an aggregate. All the aggregates, including those of substances, phenomena, numbers or geometric figures, are regarded as one thing merely by a perceiving mind. A desk is one thing only by convention, and actually made up of many wooden parts. Now, we cannot find any substance at all by dividing a number or a geometrical object. In this context they have no reality. On the other hand, there are many simple substances corresponding to a phenomenal body, even though we cannot pick up any substances by divisions of the phenomenal body at all. Phenomenal bodies do have the reality more than mathematical objects in that they have correspondent substances.

But there is a problem. That is, Leibniz seems to have denied that the number 1 is an aggregate of fractions and a line is an aggregate of the lines into which it can be divided.

Indeed, a mathematical line is like the arithmetical unit [i.e., the number 1]: for both, the parts are only possible and completely indefinite. A line is no more an aggregate of the lines into which it can be divided than the number 1 is an aggregate of the fractions into which it can be broken up. (AG 178/G2 268 1704.6.30)

Then should we conclude that all the mathematical objects cannot be aggregates? I think there is a reason not to conclude that way. Even if the number 1 is not an aggregate of fractions, the number 2 or 3 may be an aggregate of units because the parts are not indefinite. And even if a square without a diagonal may not be an aggregate because the division is indefinite, a square with a diagonal may be an aggregate of two triangles because the division has been already done. And Leibniz actually used the term “aggregate” to mean mathematical objects when he was young. He used the term “aggregatum” to signify the sum of calculation in *De Arte Combinatoria* (G4 63,66,69). Here clearly the term “aggregate” is used something different from a group of substances.

Now we understand that the term “aggregate” is applicable to many things other than a group of substances. Then did Leibniz actually use this term to a group of phenomena?

[B]ecause it cannot be understood what matter is except through monads, since it is always an aggregate, or rather, it results from many phenomena, until we arrive at simple things. (Lodge 291/G2 263-4)

What kind of reasoning is used here? First, we can regard matter as an aggregate of simple substances when we understand the correspondence between phenomenal bodies and “simple things” or simple substances. Second, we can only think about an aggregate of smaller phenomenal bodies if we do not understand what simple substances are. Also, Leibniz used the term “an aggregate of individual bodies [corporum singularium aggregatum]” (G2 262 1704.1.21). Here Leibniz wanted to claim that we cannot find any individual bodies because all the bodies are divisible in an arbitrary way. Leibniz considered something different from an aggregate of simple substances in this passage.

Considering above, I will conclude that two kinds of aggregates are introduced by Leibniz. One is an aggregate of simple substances, which is not one substance and its unity is dependent on a perceiving mind. The other is an aggregate of phenomenal bodies, which can be divided infinitely, and we can find no ultimate elements there. Adams only considers the former, an aggregate of simple substances. But since in fact Leibniz used the term “aggregate” in various ways, we should not restrict the scope of “aggregate” in that way.

Abbreviation

AG = *G. W. Leibniz: Philosophical Essays*. Ed. and trans. Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989.

G = *Die philosophischen Schriften von G. W. Leibniz*. Ed. C. I. Gerhardt. Berlin: Weidmann, 1875-1890. Reprint, Hildesheim: Georg Olms, 1978. Cited by volume and page.

Lodge = the Leibniz-De Volder Correspondence. Ed. and trans. Paul Lodge. New Haven: Yale University Press, 2013.

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