

When Did Leibniz Rehabilitate Substantial Forms?

いつライプニッツは実体的形相を復興したのか?

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〈要旨〉

When did Leibniz rehabilitate substantial forms?¹ The exact date is not easy to pick out, but I argue that ① *An Outline of a Little Book [Conspectus libelli]* (summer 1679 to winter 1678/9) is the first text in which Leibniz explicitly rehabilitated substantial forms as far as I know, as Daniel Garber suggests, and ② Leibniz had not rehabilitated substantial forms at least until 29 March 1678, as André Robinet argues.

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1. Introduction

At the beginning of 20th century, Bertrand Russell argued that Leibniz's metaphysics was established at least by 1686, and it is majorly founded upon his logic (Russell 1934). Louis Couturat presented a similar interpretation in his book, where he (Couturat 1901). But Martial Gueroult introduced an opposing interpretation, according to which Leibniz's metaphysics is deeply connected with his dynamics, which is formed by inquiries that are mostly independent of Leibniz's logic (Gueroult 1934). Gueroult's interpretation has been influential, and recently many scholars believe that Leibniz's metaphysics is not simply derived from his logical investigations in 1680s.

But at least, as Russell suggested, we can find important claims of Leibniz's metaphysics in the texts of 1680s, such as that there are many substances that are created by God, and continuously and spontaneously act

and change. Leibniz had been committed to this claim up until the end of his life.

Then a question arises: When did Leibniz introduce his matured form of metaphysics, according to which there are many substances that always spontaneously change? As Leibniz noticed in *Discourse on Metaphysics* of 1686, he started to suppose that there are substantial forms in bodies before writing *Discourse*. This is quite relevant to his view that the universe is full of substances that spontaneously act. But he did not exactly specify the date.

When did Leibniz rehabilitate substantial forms?¹ The exact date is not easy to pick out, but I argue that ① *An Outline of a Little Book [Conspectus libelli]* (summer 1679 to winter 1678/9) is the first text in which Leibniz explicitly rehabilitated substantial forms as far as I know, as Daniel Garber suggests,² and ② Leibniz had not rehabilitated substantial forms, at least until 29 March 1678, as André Robinet argues.

¹ A text of 1677 is interesting in relation to the rehabilitation of substantial forms, since it suggests that Leibniz believe that physical phenomena requires a life, namely, something like a substantial form. In the *Animal Machine* of 3 October 1677, Leibniz argued that the peristaltic motion of the intestines, and other complicated inner motions postulate the first motion of the whole organism, namely the life (Smith 2011, p. 289; Pasini 1996). Leibniz suggested that the body of an animal does need its principle of action, and I think it can be taken as substantial form. But Leibniz did not argue that an inorganic body must contain a substantial form in this text, and I don't think Leibniz rehabilitated substantial forms in general in 1677.

² Richard Arthur argues that "reasoning from the Full Cause Principle, Leibniz was able to show in early 1678 that a body's ability to work, to produce physical effects, is measured not by quantity of motion (mv) but by vis viva ('living force'), whose measure is mv²" (Arthur 2014, p. 114). Here he tried to specify the period of Leibniz's discovery of the measurement. But he does not provide an exact date for Leibniz's rehabilitation of substantial forms.

Many commentators discuss the exact date of the rehabilitation. Robinet argues that Leibniz rehabilitated substantial forms in a letter to Johann Friedrich of Autumn 1679 for the first time:³

There is one more thing that is quite important in my philosophy, which gives it a way of approaching the Jesuits and other theologians. It is that I reestablish the substantial forms, which the atomists and Cartesians claim to have eliminated. Now, it is known that without these forms, and without the difference there is between them and real accidents, it is impossible to maintain our mysteries: since if the nature of body consists in extension, as Descartes claims, it would be contradictory to maintain that a body exists in many places at the same time. But since that which has been said up until now about the essence of body has not been intelligible, one shouldn't be astonished if these substantial forms have passed for chimeras among the best minds. In place of this, that which I will say will be as intelligible as everything which the Cartesians have ever said about other things. [A. II.i.754; Garber 2009a, pp. 225-6 cf. Robinet 1986, p. 250]

Here Leibniz was addressing a theological doctrine of mystery, according to which a body can exist in different places at the same time. But in relation to this doctrine, Leibniz introduced a rational argument, stating that “if the nature of body consists in extension,” then “it would be contradictory to maintain that a body exists in many places at the same time.” Although Leibniz here supposed that the doctrine of mystery is true, he still introduces substantial forms with his reasoning. Still, some readers may assume that Leibniz only introduced substantial forms here to please Johann Friedrich, Duke of Hanover. To be sure, the Duke was a Catholic and interested in how to explain the mystery of Eucharist. But in any case, the passage is clearly one where Leibniz explicitly declared that there are substantial forms.

Robinet's dating of Leibniz's rehabilitation is debatable, since we can find a newer text in which Leibniz suggests that there are substantial forms in bodies. Against Robinet's interpretation, Daniel Garber suggests that the date of the rehabilitation is a little bit earlier. According to Garber, Leibniz was explicitly committed to the existence of substantial forms in *An Outline [Conspectus] of a Little Book* (hereafter *Conspectus*), which is dated at summer 1678 to winter 1678/9 (Garber 2009a, p. 49):

[...] [T]he operation of a body cannot be understood adequately unless we know what its parts contribute; hence we cannot hope for the explanation of any corporeal phenomenon without taking up the arrangement of its parts. But from this it does not at all follow that nothing can be understood as true in bodies save what happens materially and mechanically, nor does it follow that only extension is to be found in matter. [...] Mathematical science provides magnitude, figure, situation, and their variations, but metaphysics provides existence, duration, action and passion, force of acting, and end of action, or the perception of the agent. Hence I believe that there is in every body a kind of sense and appetite, or a soul, and furthermore, that to ascribe a substantial form and perception, or a soul, to man alone is as ridiculous as to believe that everything has been made for man alone and that the earth is the center of the universe. But on the other hand, I think that when once we have demonstrated the general mechanical laws from the wisdom of God and the nature of the soul, then it is as improper to revert to the soul or to substantial forms everywhere in explaining the particular phenomena of nature as it is to refer everything to the absolute will of God. [A.VI.iv.2009-2010 = L.289; Garber 2009a, p. 50]

Leibniz suggested that things other than human beings have substantial forms. This claim may appear to suggest that only animals have substantial forms, but in fact he introduced the stronger claim that “there is in every body a

³ Robert Sleigh suggests that in April 1679 “Leibniz formulated an original series of logical systems for testing validity (C42-92)” (Mercer and Sleigh 1995, p. 107). Leibniz's formulation is significantly connected with his inquiry of individual substance. This date is somewhat earlier than the autumn of 1679, which Robinet proposed as the period of the rehabilitation of substantial forms. I think Sleigh may be right, but it should be noted that he does not argue that Leibniz started to believe that there are many individual substances in April 1679.

kind of sense and appetite, or a soul, and furthermore, that to ascribe a substantial form.” For Leibniz, metaphysical considerations are needed to figure out causes of observable changes, and such kind of considerations lead us to realize the existence of substantial forms. Thus I think the passage shows that Leibniz was committed to the existence of substantial forms in summer 1678 to winter 1678/9. So as Garber suggests, I think *Conspectus* is the earliest text of the rehabilitation of substantial forms insofar as we know.

As for ②, on the basis of passages from 1678-9, Robinet argues that a letter to Conring seems to show that Leibniz was not committed to the existence of substantial forms on 29 March 1678:

Who would deny substantial forms as essential differences of bodies? Do you think I badly attributed [the doctrine of] “the origin of forms from nothing” to you somewhere? I don’t remember where it happened. Anything happens mechanically in nature, namely, happens by certain mathematical laws prescribed by God, and I don’t know why [it happens so] prior to most absurd numbers. I acknowledge only bodies and minds in things, and only intellect and will in minds. In bodies, I acknowledge only what is constructed by mind, namely, size, figure, place, and change of them in parts or the whole. Others are said without being understood: Just sounds without mind. [A.II.i.400; Robinet 1986, p. 246]⁴

Leibniz argued that “everything happens mechanically in nature.” Any phenomenon in the world of nature can be explained by shape, size, and spatial movements of bodies. This claim does not show that Leibniz did not hold that there are substantial forms, since in the late period he was a mechanist in terms of explaining the phenomenal world while he believed that soul-like beings are in bodies. But I think that Leibniz’s view in this letter to Conring is quite

different from his late view, since he argued that “we cannot assert with certainty that there is a sentient soul in beasts unless we observe phenomena which cannot be explained mechanically” (L.190). According to his late view, the behaviors of beasts can be explained mechanically, and nonetheless beasts have sentient souls. But in the letter to Conring, Leibniz was not even sure about the existence of sentient souls of animals, and it is hard to suppose that he was convinced of the existence of substantial forms in inorganic bodies. He also wrote that there is nothing “in bodies insofar as they are separated from mind but magnitude, figure, situation, and changes in these, either partial or total” (L.189). Here he did not explicitly deny that there are minds, or mind-like entities in bodies. But again, since he did not firmly believe that beasts have souls, I do not think that he was committed to the existence of mind-like entities contained in bodies when he wrote the letter.

So far Robinet is right. But I think he misinterpreted another passage of June 1679, suggesting that Leibniz at that time did not hold that there are substantial forms:

Everything happens mechanically. For me, those who agree with this seem not to be so distant from scholastic philosophers: For, doesn’t what refers to anything related to powers of some forms, refer to particular figures and motions, if those are some kind of things which you do not explain? [A letter to Craanen June 1679 A.II.i.469; Robinet 1986, p. 246]⁵

Again, Leibniz stated that “[e]verything happens mechanically.” And Leibniz suggested that any movement is considered as a change of place, and any movement of a body is brought about by contiguous bodies that are moving. But again, Leibniz may have been talking about the phenomenal world, and if so his suggestion is consistent with his metaphysics of the late period. And his suggestion is consistent with a belief that there are substantial forms in bodies. Furthermore, unlike the

⁴ Formas substantiales quis neget, id est differentias essentials corporum? Formarum ortum ex nihilo ais me tibi male alicubi tribuisse? Non memini ubi hoc faciam. Omnia fieri Machanice in natura, id est certis legibus mathematicis a Deo praescriptis, nescio cur inter absurdissima numeres. Ego nihil aliud agnosco in rebus quam corpora et mentes, nec in mentibus nisi intellectum et voluntatem, nec in corporibus quatenus a mente se junguntur, nisi magnitudinem et figuram et situm, et horum mutationem in partibus vel toto. Caetera dicuntur non intelliguntur: sunt sine mente soni.

⁵ Omnia fieri mechanic. Mihi vero qui generalibus istis contenti sunt non multum distare videntur a philosophis de Schola: quid enim refert an Omnia ad facultates quasdam formasve referas, an vero ad particularum figuras motusque, si qualesnam sint illae, non explices?

previous passage of the letter to Conring, he did not explicitly refer to a substantial form or a soul-like being. It is hard to find any clear denial of the existence of substantial forms here. So I do not think that Leibniz denied that there are substantial forms in bodies in June 1679. But at least Robinet's discussion of the letter to Conring of 29 March 1679 is plausible, and I conclude that on that day Leibniz had not rehabilitated substantial forms.

So far following distinguished commentators, I have argued that ① "Conspectus libelli" (summer 1678 to winter 1678/9) is the first text in which Leibniz explicitly rehabilitated substantial forms as far as I know, and ② Leibniz had not introduced substantial forms at least until 29 March 1678. But some interpretations made by other commentators are in tension with my view. I will examine two interpretations in the following. First, I examine G.H.R. Parkinson's interpretation, according to which Leibniz in fact held that there are substantial forms in 1676. If he is right, Leibniz obviously did not have to "rehabilitate" substantial forms a few years later. Parkinson wrote:

Leibniz does not use the term "substantial form" in the *De Summa Rerum*; but there is reason to think that the concept of a substantial form is present in the work at any rate in an embryonic form. The evidence is provided by the thesis, defended in the *De Summa Rerum*, that for every material thing there must be a mind. Leibniz offers more than one argument for this thesis. [Parkinson 1992, p. xxxii]

So, Parkinson argues that the thesis "for every material thing there must be a mind" implies that a body has a substantial form. But we should not conflate "mind" with substantial form. According to the discussions in *De Summa Rerum* (here in after DSR), mind cannot exercise a physical force upon bodies by agitating them (A.VI.iv.480 = DSR.37). But in 1678-79, Leibniz held that substantial form is the principle of action for a body, and he wrote that "body is extended substance," and "the action of an extended thing is by motion, namely, local motion" (A.VI.iv.1399 = RA.245). Thus he suggested that a body is a substance that acts by locomotion, and it seems that a substantial form as the principle of action is a cause of this locomotion.

Leibniz also provided a clear definition of substance, since he defines substance as "that which can act" (ibid.). Here Leibniz understands substance differently from what he did in DSR, since Leibniz did not think finite things can act by themselves, since he suggested an occasionalists view in terms of the movements of bodies in DSR.

Moreover, the substantial form of a body seems to have different actions from those of a mind in DSR. Leibniz argued that mind does not physically influence bodies in DSR, whereas substantial forms seem to have both mental and physical actions. Substantial forms are considered as soul-like beings, and seem to have mental properties. But not only that, they are principles of action for bodies, and the actions of bodies are locomotions. This implies that substantial forms cause locomotions. All in all, I think the metaphysics of substantial form is distinguished from minds discussed in DSR in that the form is considered as the principle of action and duration, and it exercises physical forces. So I do not think Parkinson's interpretation is plausible.

Second, I examine Robert Adams' interpretation. He argues that a text dated 1678-9 shows that Leibniz held bodies do not have substantial forms before the time it was written (Adams 1994, pp. 235-8). This interpretation does not necessarily contradict mine since Adams' text may have been written earlier than the *Conspectus*, which is dated at "summer 1678 to winter 1678/9" (Garber 2009a, p. 49). But Adams' interpretation implies that if it was written after *Conspectus*, Leibniz did not hold that there are substantial forms in bodies in *Conspectus*. I do not accept this consequence, and moreover, I don't think Adams' text implies that Leibniz did not hold that there are substantial forms in bodies:

By 'body', however, I do not mean what the Scholastics compose out of matter and a certain intelligible form, but what the Democriteans elsewhere call bulk. This, I say, is not a substance. For I shall demonstrate that if we consider bulk as a substance, we will fall into contradiction as a result of the labyrinth of the continuum. In this context we must above all consider: first, that there cannot be atoms, since they conflict with divine wisdom; and second, that bodies are really divided into infinite

parts, but not into points. Consequently, there is no way one can designate one body, rather, any portion of matter whatever is an accidental entity, and, indeed, is in perpetual flux. But if we say only this, that bodies are coherent appearances, this puts an end to all inquiry about the infinitely small, which cannot be perceived. But this is also a good place for that Herculean argument of mine, that all those things which are such that it is impossible for anyone to perceive whether they exist or not, are nothing. Now this is the nature of bodies, for if God himself wished to create corporeal substances of the kind people imagine, he would have done nothing, nor could he perceive himself to have done anything, since in the last analysis nothing but appearances are perceived. So coherence is the sign of truth, but its cause is the will of God, and its formal reason is that God perceives something to be the best or most harmonious, i.e. that something is pleasing to God. So divine will itself, so to speak, is the existence of things. [A.VI.iv.1637 = RA.259-61] (c. 1678-79?)

According to Adams, Leibniz presented two arguments here. The first argument can be stated as follows: Bodies can be divided *ad infinitum*, and we cannot pick out indivisible unities from them. And bodies do not have reality unless they contain indivisible unities. Therefore, bodies are not real things but coherent appearances. The second argument is the following: Anything which anyone cannot perceive whether it exists is nothing. No one can perceive whether corporeal substances exist. Therefore, corporeal substance is nothing. According to Adams, these arguments are not consistent with the rehabilitation of substantial forms, and so the passage was written before the rehabilitation.

Now as Richard Arthur does, I interpret the passage of the first argument as presenting a different kind of argument. Against Adams, Arthur provides a different interpretation of the passage above, taking special note of Leibniz's claim that "if we consider bulk as a substance, we will fall":

To recapitulate: if matter consists only in bulk, then there is no unit of matter, but only an infinite regress of parts within parts, with no undivided wholes.

Again, if matter consists only in bulk, then each of these parts will be ephemeral: the parts out of which it is in turn constituted last only for an instant, due to the changing motions that define them.

It is worth stressing the hypothetical character of this argument. For some commentators have seen Leibniz's claims that "Matter and motion are only phenomena" and that "Body is not a substance, but only a mode of being or coherent appearance" as indicating a commitment to phenomenalism at this time. Robert Merrihew Adams, in particular, has used this to argue that the fragment with the latter statement as title must have been written prior to Leibniz's revival of substantial forms in 1679. But Leibniz is at pains to point out there that his conclusions only apply to body in the sense of what the "Democriteans elsewhere call bulk," not to body composed of "matter and a certain intelligible form" (Aiv316). Thus the logic of this fragment (and, I would argue, of Aiv277) is all of a piece with the reasoning he presents in manuscripts written after he has introduced substantial forms; indeed, it is part of the argument *for* introducing them! [Arthur 2001, p. lxvii]

So, according to Arthur, the passage quoted by Adams just shows that *if* a body is a bulk, it is not real. For Arthur, this implication does not establish the conclusion that bodies are merely phenomena for perceiving minds. To be sure, Leibniz stated that if we say "that bodies are coherent appearances," we can put "an end to all inquiry about the infinitely small" (A.VI.iv.1637 = RA.259). Here Leibniz explicitly suggested that once we assume that bodies are coherent appearances, the problem of infinitesimals is solved, and we can get out of the so-called labyrinth of the continuum. But still, Leibniz just suggested that the statement is one of the possible solutions.

Now I consider the second argument:

Now this is the nature of bodies, for if God himself wished to create corporeal substances of the kind people imagine, he would have done nothing, nor could he perceive himself to have done anything, since in the last analysis nothing but appearances are

perceived. So coherence is the sign of truth, but its cause is the will of God, and its formal reason is that God perceives something to be the best or most harmonious, i.e. that something is pleasing to God. So divine will itself, so to speak, is the existence of things. [A.VI.iv.1637 = RA.259-61] (c. 1678-79?)

The passage implies that “corporeal substances of the kind people imagine” do not exist, namely that there is no corporeal substance that consists in extension alone. So, it

does not imply that corporeal substances with substantial forms don't exist. Leibniz wrote “coherence is the sign of truth,” but he did not argue that bodies are phenomena for perceiving minds. To sum up, I think Leibniz was seriously committed to the existence of substantial forms in 1678-9. Although a skeptical focus reappears in his thinking in 1686, as we can see in his draft of *Discourse on Metaphysics* (AG.65-6), it did not horn his mind in this period.

Abbreviation

A. = *Sämtliche Schriften und Briefe*. Herausgegeben von der Deutschen Akademie der Wissenschaften zu Berlin. Darmstadt, 1923 ff., Leipzig, 1938 ff., Berlin, 1950 ff. Cited by series, volume, and page.

C. = *Opuscules et fragments inédits de Leibniz*. Ed. by Louis Couturat. Paris: Alcan, 1903; reprinted Hildesheim: Olms, 1966.

AG. = *G.W. Leibniz: Philosophical Essays*. Trans. and ed. R. Ariew and D. Garber. Indianapolis: Hackett, 1989.

L. = *Philosophical Papers and Letters*. Trans. and ed. by Leroy E. Loemker. 2nd ed. Dordrecht and Boston: Reidel, 1969.

RA. = *The Labyrinth of Continuum*. Trans. and ed. R. Arthur. New Haven: Yale University Press.

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