

LEIBNIZ ON THE SIMPLICITY OF SUBSTANCE

by Robert C. Sleigh, Jr.

“The monad of which we shall speak here is nothing but a simple substance which enters into compounds; simple, that is to say, without parts.

And there must be simple substances, because there are compounds, for the compound is nothing but a collection or an aggregatum of simples.”
(*Monadology*, secs. 1 and 2; MP, 179)¹

These opening paragraphs of *The Monadology* present an important doctrine in Leibniz’s metaphysics, namely, the doctrine that all substances are simple, i.e., without parts; or, if we are inclined to suppose that Leibniz admitted compound substances, that every substance either lacks parts or is composed of substances that lack parts. Let us call this doctrine the simplicity of substance. The main aim of this paper is to discuss one line of reasoning that apparently led Leibniz to the doctrine of the simplicity of substance. It is a line of reasoning which is to be found in the *Discourse on Metaphysics* and the correspondence concerning the *Discourse* with Arnauld. The line of reasoning I have in mind is that summarized in the following quotation from Leibniz’s letter to Arnauld in December of 1686: “Substantial unity requires a complete, indivisible, and naturally indestructible entity, since its concept embraces everything that is to happen to it . . .” (G/2/76; Mason 94). This quotation might suggest that one line of reasoning that led Leibniz to the simplicity of substance is the same as what led him to the “notable paradoxes” of paragraph 9 of the *Discourse on Metaphysics*. Recall Leibniz’s words:

From this, several notable paradoxes follow. One of these is that it is not true that two substances resemble each other entirely and are different in number alone (*solo numero*), . . . and that a substance can begin only by creation and perish only by annihilation; that one substance is not divided into two nor is one made out of two. . . . (DM, sec. 9; MP, 19)

Note that the notable paradoxes cited do not include the simplicity of substance. Still, I agree with Parkinson when he claims, while discussing some of the notable paradoxes, “the indivisibility of substance, then, is the primary consequence from which the others are derived.”² All we need do, one might

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think, is to reconstruct the general line of reasoning by which Leibniz arrived at the notable paradoxes fashioning whatever peculiarities are called for in the case of the simplicity of substance. Naturally we want to know the reference of the 'this' in "From this, several notable paradoxes follow . . .". Not surprisingly, the most likely candidates are to be found in paragraph 8 of the *Discourse*. Paragraph 8 coupled with our quotation from Leibniz's letter to Arnauld of December 1686 suggests the following argument:

A

- (i) for any x , x is an individual substance if and only if the concept c of x is complete relative to x .
- (ii) for any x , if the concept c of x is complete relative to x then x is not composite.
- ∴(iii) for any x , if x is an individual substance then x is not composite.

I take A(ii) to be implied by our quotation from the letter of December 1686. Note that for A to be valid we need only the "only if" part of A(i). And actually the crucial lines from paragraph 8 may be construed as supporting no more than the "only if" part of A(i). The lines I have in mind are these:

That being so, we can say that it is the nature of an individual substance, or complete being, to have a notion so complete that it is sufficient to contain, and render deducible from itself, all the predicates of the subject to which this notion is attributed. (DM, sec. 8; MP, 18)

This quotation seems to say that the property of having its concept a complete one is essential to an individual substance. But of course that is consistent with non-substances having the property (either essentially or accidentally). Still I agree (again) with Parkinson that Leibniz did hold the "if" part of A(i), i.e., that if the concept of an entity is complete then that entity is an individual substance.³ In a fragment written in 1686 we find:

If a notion is complete, i.e., is such that from it a reason can be given for all the predicates of the subject to which this notion can be attributed, this will be the notion of an individual substance; and conversely. (C, 403; MP, 95; cf. G/2/68; Mason 84)

Even though argument A does not require the "if" part of A(i), my belief is that understanding why Leibniz held the "if" part of A(i) may shed some light on why he held A(ii). Hence, in Part I, I discuss A(i)—both the "only if" part which the argument requires and the "if" part that the argument does not require. In Part II, I organize some material treated haphazardly in Part I. In Part III, I discuss A(ii).

I

'That being so . . .' commences our quotation from paragraph 8 of the *Discourse*. What being so? On the most liberal interpretation there are two candidates: one, what I shall call the *Aristotelian Conception of Substance*, which is expressed in paragraph 8 as follows:

when several predicates are attributed to one and the same subject, and this subject is not attributed to any other, one calls this subject an individual substance. (DM, sec. 8; MP 18);

the other, what I shall call the *Concept Containment Account of Truth*, which is expressed in paragraph 8 as follows:

every true predication has some basis in the nature of things, and when a proposition is not identical—that is, when the predicate is not contained expressly in the subject—it must be contained in it virtually. (DM, sec. 8; MP 18)

I shall take this passage to express the same account of truth as the following passage taken from a July 1686 letter to Arnauld:

in every true affirmative proposition, necessary or contingent, universal or singular, the concept of the predicate is contained in some manner in that of the subject, *praedicatum inest subjecto*. Or else I do not know what truth is. (G/2/56; Mason, 63)

Without aiming for subtlety we might formulate the concept containment account of truth as applied to categorical, affirmative, singular propositions in the following manner:

Df 1 For any categorical affirmative singular proposition p , p is true if and only if there are entities x , y , c , and c' such that:

- i) x is the subject of p
- and ii) y is the predicate of p
- and iii) c is the concept of x
- and iv) c' is the concept of y
- and v) c' is contained in c .

Let ϕ be a sentence that expresses a categorical affirmative singular proposition p . It seems clear that Leibniz made the following assumptions: ϕ may be analyzed into a grammatical subject and a grammatical predicate; p has two primary constituents corresponding respectively to the grammatical subject and the grammatical predicate of ϕ . One primary constituent is the subject concept of p which is a concept of that to which the grammatical subject of ϕ refers, i.e., the subject of p . The other primary constituent is the predicate concept of p which is a concept of that for which the grammatical predicate of ϕ stands, i.e., the predicate of p . Where x is an individual substance, obviously x can occur as the reference of a grammatical subject. Moreover, given the Aristotelian conception of substance, x never occurs as the predicate of a proposition, only as the subject. Let us assume for now that we are to associate with a given entity a unique concept (at least for the purpose of deciding what concept will occur as a primary constituent in a proposition about that entity).⁴ Then, Df 1 requires that if x is an individual substance then the concept c associated with x (i.e., the concept of x) contains (in some manner) a concept of every property x has; and, hence, that c is complete relative to x in the sense of containing a concept of every property x has. Of course we would

like to know what prompted Leibniz to offer the account of truth that Df 1 purports to capture for the case of categorical, affirmative, singular propositions. But that is a topic for another paper.

Note that our derivation of the “only if” part of A(i) depends upon assuming the following principle:

P1 For any entity x , there is a unique concept c such that c is a primary constituent in any proposition p of which x is either the subject or the predicate.

Is it reasonable to attribute such an assumption to Leibniz? I think it is. In the correspondence we find Arnauld defending a rule for determining *the* concept of x , for any entity x .⁵ Arnauld drew certain conclusions about what propositions are true, what false, what necessary, what contingent on the basis of the assignment of concepts to entities that results from the application of his rule. The reply Leibniz sent to Arnauld on these matters is to be found from G/2/49-G/2/53 (Mason, 54-59). Arnauld’s rule is subjected to criticism and a different assignment of concepts to entities is defended. None of this debate makes sense unless P1 is accepted by both Arnauld and Leibniz.

So much for the “only if” part of A(i). Assuming P1, we may formulate the “if” part as follows:

P2 For any entity x , if the concept of x is complete relative to x , then x is an individual substance.

Consider the following, quite different principle:

P3 For any entity x , if there is a concept c such that:

- i) c is of x
 - and ii) c is complete relative to x
- then x is an individual substance.

Let us not worry about the possibility of divergent readings of ‘of x ’ and ‘complete relative to x ’ as they occur in P2 and P3. In a letter to Hessen-Rheinfels, complaining of Arnauld’s truculence, we find Leibniz saying:

Can one deny that everything (whether genus, species, or individual) has a complete concept [*une notion accomplie*] . . . that is to say a concept which contains or includes everything that can be said of the thing. (G/2/131; Mason, 73)

The answer Leibniz expected is: no-one can’t deny it; but a genus or a species is not an individual substance—so much the worse for P3. So according to Leibniz there is a concept of a genus, or, indeed, any abstraction which is complete relative to that thing (at least in the sense of containing [a concept of] everything that can be said [truly] of that thing). And of course there is. Apparently Leibniz wanted to hold that in the case of a non-substance x such a concept is not *the* concept of x —not a primary constituent in propositions

of which x is the subject or predicate. Indeed, if we turn back to paragraph 8 of the *Discourse* we find a passage that suggests that *the* concept of an abstraction x (as, for example, a genus, a species, or an accident) is not even “of” x in the sense of containing concepts of properties of x . So it does not have a chance of being complete relative to x in the sense of containing concepts of everything that can be said truly of x . Consider this passage:

an accident is a being whose notion does not include all that can be attributed to the subject to which this notion is attributed. Take, for example, the quality of being a King, which belongs to Alexander the Great. This quality, when abstracted from the subject, is not sufficiently determinate for an individual and does not contain the other qualities of the same subject, nor everything that the notion of this prince contains. (DM, sec. 8; MP, 19)

This passage makes it clear that concepts contained in *the* concept of the quality of being a king are concepts of properties had by kings, *not* concepts of properties had by the quality of being a king. Numerous other passages support the thesis that for Leibniz the concept of an abstraction contains concepts of properties of the things from which it is abstracted, not concepts of properties of the abstraction itself.

But does this not generate a problem for Leibniz? He was well aware that accidents have accidents; more generally, that abstractions have properties.⁶ Think, then, of a categorical affirmative singular proposition p which attributes a property F to an abstraction B . P1 and Df 1 applied to such a proposition require that the concept of B be complete relative to B in the sense of containing (a concept of) everything that can be said truly of B . But we have just seen that in no case did Leibniz regard the concept of an abstraction as being complete in this sense. Is there a resolution to this difficulty? I think there is. Here is my picture of Leibniz’s picture of the matter:

Assume a somewhat simplistic correlation between grammatical subjects (predicates) of sentences and subject (predicate) concepts of propositions expressed by sentences.⁷ Let ϕ be any categorical affirmative singular sentence in subject-predicate form; let x be the concept of that to which the grammatical subject of ϕ refers; let y be the concept of that for which the predicate concept of ϕ stands. It will not cause us difficulties in understanding Leibniz if we suppose that he identified the proposition expressed by ϕ with the ordered pair $\alpha = \langle x, y \rangle$. More generally, for any categorical, affirmative singular proposition p we may suppose that Leibniz identified p with an ordered pair whose first term is the subject concept of p and whose second term is the predicate concept of p . (Of course there are difficulties in so construing propositions, e.g., we cannot say that if sentences ϕ and ψ express the same proposition then they have the same meaning).

Now there is considerable evidence that Leibniz thought it useful to “do without abstract terms in a rational language” (C, 243; LLP, 12). And there is considerable evidence that he thought this goal attainable, e.g., “it is not easy to do without abstract nouns. Therefore, it suffices to prescribe this that they

be avoided as far as it is possible. However, I hold it for certain that when the correct characteristic has been established it will be possible to avoid them entirely" (C, 435: cf. C, 512-513; MP 6-7).

Let us introduce the technical term "official proposition" to denote a singular proposition expressed by some singular sentence in "a rational language," in "the correct characteristic." My suggestion is, then, that Leibniz held that categorical affirmative singular sentences whose grammatical subjects refer to abstractions are eliminable in the sense that they are equivalent in meaning to sentences which, if categorical, affirmative, and singular, lack grammatical subjects referring to abstractions. In a rational language no categorical affirmative singular sentences with grammatical subjects referring to abstractions would occur. Hence, where x is the concept of an abstraction and y any concept whatever, $\langle x, y \rangle$ is not an official proposition. I suggest that Leibniz intended to apply the concept containment account of truth only to official propositions.

I am aware that the evidence for this claim is less than overwhelming. My own confidence in the correctness of this interpretation is based in part on this indirect evidence: alternative accounts seem to me either to stray far from the texts or to attribute to Leibniz theses which are so exceedingly implausible that I cannot believe he would have accepted them.

P2, then, turns out to be something Leibniz can support because the concept containment account of truth is simply not applied to categorical affirmative singular propositions whose subjects are non-substances. Given that *the* concept of x is to be whatever concept is a primary constituent of all official propositions in which x figures as either subject or predicate, it is clear that Df 1 does not require the assignment of a complete concept to an abstraction.

Thin ice, you may say, and you may be right. Now what has this to do with Leibniz's acceptance of A(ii)? My suggestion is that the project of translating out definite singular terms referring to abstractions was extended by Leibniz to the replacement (via analysis, of course) of some definite singular terms that would pre-analytically be taken to refer to non-abstractions, i.e., concrete entities. At first Leibniz applied the translation project to (definite singular terms referring to) "moral entities," e.g., entities such as an army, a college, the Dutch East Indies Company—where, as he put it, "something imaginary exists, dependent on the fabrication of our minds" (G/2/76; Mason 94). Leibniz treated these "moral entities" as logical constructions.⁸

II

In the preceding discussion the idea that a concept is *of* a thing x and the idea that a concept is complete relative to a thing x have both been employed in various ways. It may prove useful to organize this material somewhat more carefully. It is natural to suppose that 'relative to x ' in 'complete relative to x ' ought to mean the same as 'of x .' With this supposition in hand, then, we may

divide our task into 1) explaining completeness, and 2) explaining what it is for a concept to be *of* something.

1) Some background: although Leibniz took concepts of properties to be contained in concepts, we shall simplify and take properties themselves to be contained in concepts. Having gone this far, let us take a concept to be a set whose members are the properties it contains. Let us say that a set of properties c entails a property F just in case it is not possible that something has every member of c and yet lacks F . Let c and c' be non-empty sets of properties; let k be the set of properties entailed by c and k' the set of properties entailed by c' . Then ' c ' is contained in ' c' ' (as it occurs in Df 1) will be true just in case $k' \subseteq k$.

Consider these definitions: (assume that c ranges over non-empty sets of properties)

Df2 c is consistent=df. It is possible that there is something that has every property in c .

Df3 c is maximal=df. For any property F , if c does not entail F then $c \cup \{F\}$ is inconsistent.

Df4 c is complete=df. c is maximal and consistent.

Note that for any property F , if c is maximal then either c entails F or c entails the complement of F . Moreover, if c is consistent then it will not entail both F and its complement. c may be complete even though there is some property F such that neither F nor its complement is a member of c .

2) Given P1 and the remarks about how Arnauld and Leibniz understood 'the concept of—' our hand is forced with respect to explaining 'the concept of x .' It must come to this:

Df5 c is the concept of x =df. c is a primary constituent in every official proposition of which x is either the subject or the predicate.

This definition leaves something to be desired. It may be said that it does not make clear, even in conjunction with Df 1, what the membership of c will be for given x . And it does not shed much light on how ' c is of x ' is to be construed. It is natural to press on to a definition that is more forthcoming with respect to the membership of c for given x . Consider:

Df6 c is of x =df. For any property F , if $F \in c$ then x has F .

Notice that Df 6 allows that an entity x may have more than one concept which is *of* it. Now consider:

Df 7 c is complete relative to x =df.

i) For any property F , if $F \in c$ then x has F
and ii) c is complete.

Notice that this is possible: there is an entity x and concepts c and c' such that c is *complete relative to* x and c' is *complete relative to* x and $c \neq c'$. However, where c and c' are distinct but both *complete relative to* x , then, for any property F , c entails F if and only if c' entails F .

My suggestion is that where we find Leibniz saying that "everything (whether genus, species, or individual) has a complete concept" (G/2/131; Mason, 73), 'complete' is used in the sense of Df 7.

But as previously noted, paragraph 8 of the *Discourse* suggests that Df 6 simply will not do when applied to non-substances. Can we stand closer to the text and still provide a definition that is more forthcoming concerning the membership of c for given x ? I think we can do somewhat better. Consider:

Df 8 x is an Aristotelian substance =df.

x has properties but there is no y such that x is a property of y .

Df 9 c is of x =df.

i) If x is an Aristotelian substance then, for any property F , $F \in c$ only if x has F .

and ii) If x is not an Aristotelian substance then, for any property F , $F \in c$ only if, for any y , if y has x then y has F .

Df 10 c is complete relative to x =df.

i) c is complete

and ii) If x is an Aristotelian substance then, for any property F , $F \in c$ only if x has F .

and iii) If x is not an Aristotelian substance then, for any property F , $F \in c$ only if, for any y , if y has x then y has F .

Consider this passage:

A full concept contains all the predicates of the thing, e.g., heat; a complete concept all the predicates of the subject, e.g., a hot fire. They coincide in individual substances. (G/2/131; Mason, 73)

My suggestion is that in this passage by a *full concept* Leibniz meant a complete concept in the sense of Df 7 and by a *complete concept* he meant a complete concept in the sense of Df 10. He was pointing out (correctly) that if x is not a substance then x will not have a complete concept in the sense of Df 10 since a consistent concept of it (in the sense of Df 9) will not be maximal provided that there are substances y and z such that both y and z have x but, for some property F , y has F while z lacks F .

Recall the quotation that sets the main puzzle with which this paper deals: "Substantial unity requires a complete, indivisible, and naturally indestructible entity, since its concept embraces everything that is to happen to it" (G/2/76;

Mason, 94). Using 'complete relative to' in the sense of Df 10, can we capture part of the force of this as follows?

- (1) For any entity x , if there is a concept c such that c is complete relative to x then x is not composite.

Not if the variable ' x ' is allowed unrestricted range. The sense of completeness captured in Df 10 may well explicate the phrase 'complete notion' as it occurs in this passage from Leibniz's remarks on a letter from Arnauld:

The notion of the sphere which Archimedes had placed upon his tomb is a complete notion and is bound to include everything which belongs to the subject of that form. (G/2/39; MP, 53)

But *this* sense of completeness is but a half-way house for Leibniz. It goes with the notion of an Aristotelian substance as usually construed since that notion is built into it. Clearly, the sphere on Archimedes' tomb is composite—it has spatial parts. If my interpretation is sound, in the final analysis the sphere on Archimedes' tomb turns up as a logical construction. Let us consider the final analysis.

III

I take as my text for this section the following from Leibniz's letter to Arnauld of April 30, 1687:

it can therefore be said of these composite bodies and similar things what Democritus said very well about them, "they exist . . . by convention. . . ." Our mind notices or conceives of certain genuine substances which have various modes; these modes embrace relationships with other substances, from which the mind takes the opportunity to link them together in thought and to enter into the account one name for all these things together, which makes for convenience in reasoning. But one must not let oneself be deceived and make of them so many substances . . . ; that is only for those who stop at appearances, or those who make realities out of all the abstractions of the mind, and who conceive of number, time, place, movement, shape . . . as so many separate entities. Whereas I maintain that one cannot find a better way of restoring the prestige of philosophy and transforming it into something precise than by distinguishing the only substances or complete entities, endowed with true unity, . . . all the rest is merely phenomena, abstractions, or relationships. (G/2/101; Mason, 126-127)

Consider the proposition expressed by the following sentence:

- (2) The place that the Polo Grounds occupied in 1950 is now occupied by a housing project.

Let x be the concept of the place mentioned and y the concept of the property of being now occupied by a housing project. As I am now construing Leibniz, $\langle x, y \rangle$ is the proposition expressed by (2) but, nonetheless, $\langle x, y \rangle$ is not an official proposition. Presumably, Leibniz held that we can find some sentence

that has the same meaning as (2) which is either not singular, or, if singular, is such that its grammatical subject does not (purport to) refer to an abstraction (cf. the Leibniz-Clarke correspondence, MP, 230-233). Another way to put the matter would be this: according to a natural interpretation of Leibniz, he held that places are logical constructions; our set of official propositions to which Df 1 is to be applied will exclude propositions expressed by singular sentences whose grammatical subjects refer to logical constructions.

Pretend so far, so good. Let us concentrate on definite singular terms which purport to refer to entities which satisfy Df 8, i.e., which are Aristotelian substances, but which are composite. Obviously my thesis is that these terms are ones Leibniz wished to translate away; or, speaking in the material mode, the entities to which these terms purport to refer are ones Leibniz regarded as logical constructions. Leibniz thought that where human convention enters into the attribution of crucial properties to an entity, particularly where human convention enters into the identity conditions of entities of a given kind, there we have an entity of a kind ripe for one of two treatments: eschewal in cases where the relevant conventions lack a rational foundation; logical construction on a rational basis in cases where the relevant conventions have a rational basis (as in the case of phenomena *bene fundata*).

One dividend of the view I am suggesting may be illustrated by a consideration of some of Leibniz's remarks about "true unities." Consider these passages:

From *A Specimen of Discoveries about Marvelous Secrets of a General Nature* (c. 1686):
that is not one substance or one being which consists merely of an aggregation, such as a heap of stones, nor can beings be understood where there is no one true being (*unum Ens*). (G/7/314; MP, 81)

From *The Leibniz-Arnauld Correspondence* (1687):
I hold as axiomatic the identical proposition which varies only in emphasis: that what is not truly *one* entity is not truly *one entity* either. (G/2/97, Mason, 121)

From the *New System* (1695):
Now a multiplicity can be real only if it is made up of true unities (*unités veritables*). (G/4/478; MP, 116)

From the *Monadology* (1714):
there must be simple substances, because there are compounds, for the compound is nothing but a collection or an aggregatum of simples. (*Monadology*, sec. 2; MP, 179)

It is natural to see in these passages a common doctrine—a doctrine discussed by Thomas Reid and attributed by him to Leibniz:

There is, indeed, a principle long received as an axiom in metaphysics, which I cannot reconcile to the divisibility of matter; it is, that every being is one, *omne ens est unum*. By which, I suppose, is meant that everything that exists must either be one indivisible being, or composed of a determinate number of indivisible beings. . . .

That this axiom will hold with regard to an army, and with regard to many other things, must be granted; but I require the evidence of its being applicable to all beings whatsoever.

Leibniz, conceiving that all beings must have this metaphysical unity, was by this led to maintain that matter, and, indeed, the whole universe, is made up of monads—that is, simple and indivisible substances.⁹

The following definition will prove useful in discussing Reid's interpretation of Leibniz.

Df 11 D is a decomposition of x =df.

- i) D is a non-empty set such that, for any y , $y \in D$ only if y is a component of x .
- and ii) for any y and z , if $y \in D$ and $z \in D$ and $y \neq z$ then there is no w such that:
 - (a) w is a component of y
 - and (b) w is a component of z
- and iii) for any z , if z is a component of x and $z \notin D$ then there is a y such that:
 - (a) $y \in D$
 - and (b) there is some w such that w is a component of y and w is a component of z .

'Component of' is left unspecified deliberately. Clearly if y is a spatial part of x then y is a component of x under some decomposition. Similarly a soldier may be a component of an army but it is not obvious that a soldier is a spatial part of an army. Using Df 11 we may say that Reid attributed the following doctrine to Leibniz:

P4 For any entity x , if x is composite then there is a decomposition D of x such that, for any y , if $y \in D$ then y is not composite.

I am convinced that Leibniz accepted P4. P4 seems to capture the force of paragraph 2 of the *Monadology*. But I am not convinced that P4 captures the force of our other passages. In particular, I think it involves an underestimation of the subtlety of Leibniz's thought to suppose that by "true unity" he meant a non-composite entity. Indeed in a letter of October 9, 1687, to Arnauld we find Leibniz saying this:

Thus parts are able to constitute a whole, whether it has or whether it does not have a true unity. It is true that the whole which has a true unity is able to remain the same individual rigorously although it gains or loses parts, as we experience in ourselves.¹⁰ (G/2/120; Mason, 153)

My suggestion is that Leibniz's conception of a true unity may be put as follows: x is a true unity just in case the unity of x at a time and the identity of x over time is not a matter of convention (cf. G/2/100-101; Mason, 126-127). On Leibniz's view there are entities with a unity shy of a true unity—"I do not say that there is nothing substantial . . . in things devoid of a true unity . . ." (G/2/97; M 122). Consider, then, the following doctrine:

P5 For any entity x , if x is composite then there is a decomposition D of x such that, for any y , if $y \in D$ then y is a true unity.

Now given my parsing of "true unity," P5 amounts to this:

P6 For any entity x , if x is composite then there is a decomposition D of x such that, for any y , if $y \in D$ then the unity of y at a given time and the identity of y over time is not a matter of convention.

I suggest that P6 captures a doctrine that is common to our quotations, excluding the one from the *Monadology* which is captured by P4.

Since the notion of a decomposition occurs in P4 through P6, we may say that the notion of a component occurs implicitly in P4 through P6. We obtain much of the force that Leibniz intended for P4 through P6 if we construe 'is a component of' as something like 'is an element in a logical construction of' ("Substantial unities are not parts but foundations of phenomena" [G/2/268; Loemker, (874/536)]). If we accept my suggestion that Aristotelian substances which are not true unities (i.e., those whose identity conditions *are* a matter of convention) were treated by Leibniz as logical constructions, then P5 and P6 may appear to be the result of the application of a "Fundierung Axiom" for logical constructions. Perhaps a composite entity which is a logical construction is constructed out of entities which are themselves logical constructions, but this chain must begin with entities which are not logical constructions. So construed, P5 has considerable plausibility and is not the brute assertion: if there are compounds there must be simples.

I believe that the same texts that support the ascription of P5 to Leibniz and that support the parsing of P5 in terms of P6 also go some way toward making clear how Leibniz intended to argue from P5 to P4. I take the strategy to be this: Leibniz assumed that we would agree that in the cases of flocks, armies, colleges, and the like it is plainly a matter of convention as to what constitutes *a* flock, *an* army, etc., at a given time; hence, he assumed that the unity of such entities is a matter of convention (G/2/76; Mason, 94-95; G/2/97; Mason, 121-122; G/2/100-101; Mason, 125-127). He thought it even more obvious that the conditions governing the identity over time of such entities are a matter of convention (G/2/53-54; Mason, 60; G/4/436; DM, sec. 12). Moreover Leibniz assumed that it is frequently a matter of degree whether a given composite satisfies the conventions for constituting, e.g., a flock (G/2/96; Mason, 121; G/2/100; Mason, 126). These same passages suggest that Leibniz regarded such entities as logical constructions; these entities "that are useful only for summarizing our thoughts and representing phenomena" (G/2/96; Mason, 121).

Consider the case of a flock of sheep. Leibniz claimed that when certain relations hold among certain entities, i.e., sheep, whose unity is not *in the*

same way a matter of convention, then we refer to a (single) flock. A flock, then, is a logical construction out of its components. But, Leibniz argued, our judgments about what constitutes *a* (single) material object, i.e., about what constitutes the unity of material objects—are similarly based on convention with the composite material object playing a role similar to that of a flock of sheep and parts of the material object (under some decomposition) playing a role similar to that of the sheep in the flock. In fact, according to Leibniz, the kind of relations upon which judgments of unity are based are the same in widely divergent cases, e.g., “contiguity, common movement, concurrence towards one and the same end” (G/2/96; Mason, 121). But, Leibniz argued, the problem of the unity of material objects has a complication lacking in the case of flocks; for the problem of the unity of the parts of material objects is *in the same way* a matter of convention—indeed, it is obviously the very same problem.

Now each extended mass can be considered as composed of two or a thousand others; there exists only extension achieved through contiguity . . . the parts making it up are subject to the same difficulty . . . one never arrives at any real entity, because entities made up by aggregation have only as much reality as exists in their constituent parts. From this it follows that the substance of a body, if bodies have one, must be indivisible. (G/2/72; Mason, 88)

From these considerations Leibniz concluded:

If body is a substance . . . one must necessarily conceive of something there that one calls substantial form, and which corresponds in a way to the soul. (G/2/58; Mason, 66; cf. G/2/72; Mason, 88; G/2/96; Mason, 121)

Note that these passages seem to support the following principle (at any rate, when applied to material objects):

P7 For any entity x , if x is composite then there is a decomposition D of x such that, for some y , $y \in D$ and y is not composite.

P7 suggests this picture: for a given material object x we consider a decomposition D of x whose elements are various proper (spatial) parts of x plus a monad y . x , then, is constructed in terms of various “unity-making” relations holding among y and the spatial parts in D . But this half-way house position will not stand and Leibniz knew it. After all each spatial part that is an element of D must have its own unity, i.e., must be *a* spatial part of x . With respect to each such part the same problems arise as arose with respect to the original composite x . The reasons that led Leibniz to P7 were bound to lead him to P4.

And that is all there is to it? Hardly. I am aware that the account rendered above is incomplete. Among other things there is need for detailed considera-

tion of Leibniz's views concerning the conditions under which a judgment is "a matter of convention." Moreover, what I said above, if accurate at all, outlines but one line of reasoning which led Leibniz to the doctrine of the simplicity of substance. There is no mention here of "the labyrinth of the continuum," for example. Furthermore, the account outlined here points to a number of problems that need resolution. Here is one: I suggested that Leibniz argued that if x is composite then x is not a substance and if x has spatial parts then x is composite, so if x has spatial parts then x is not a substance. What about temporal parts? Leibniz saw the problem:

But if it is claimed that substances do not remain the same but that different substances which follow upon prior ones are always produced by God, this would be a quarrel about a word, for there is no further principle in things by which such a controversy can be decided. (G/2/264; Loemker, [871-2/535])

So in his most lucid moments Leibniz held that no object enduring through time is a substance? No. In the same passage where Leibniz posed the problem he hinted at a solution:

The fact that a certain law persists which involves all of the future states of that which we conceive to be the same—this is the very fact, I say, that constitutes the same substance. (Ibid.)

A careful statement of the problem as Leibniz saw it and his purported solution would provide a giant stride forward in understanding the details of Leibniz's conception of substance.

NOTES

1. The following abbreviations are employed: G/m/n = Gerhardt, *Die Philosophischen Schriften von G. W. Leibniz* (Berlin, 1875-1890), volume m, page n. DM sec. n = *Discours de Métaphysique*, section n. C = Couturat, *Opuscules et Fragments Inédits de Leibniz* (Paris, 1903). Mason = *The Leibniz-Arnold Correspondence*, trans. Mason (Manchester, 1967). MP = *Leibniz Philosophical Writings*, ed. and trans. Morris and Parkinson (London, 1973). LLP = *Leibniz—Logical Papers*, ed. and trans. Parkinson (Oxford, 1966). Loemker (m/n) = *Leibniz—Philosophical Papers and Letters*, ed. and trans. Loemker (1st edition, Chicago, 1956; 2nd edition, Dordrecht, Holland, 1969); page m of the 1st edition and n of the 2nd edition. Langley = *New Essays Concerning Human Understanding by Gottfried Wilhelm Leibniz*, trans. Langley (LaSalle, Illinois, 1949).

All of the passages taken from Leibniz are given in English and are followed by a reference to a source containing the passage in the original language and by a reference to a source containing a translation of the passage into English in those cases where I know of a published translation into English. In some cases the words in a passage presented in this paper will not be exactly the same as those in the English translation cited.

2. G. H. R. Parkinson, *Logic and Reality in Leibniz's Metaphysics* (Oxford: Oxford University Press, 1965), p. 157.

3. Ibid., p. 125.

4. This assumption is discussed below.

5. See G/2/30-G/2/32; Mason, 29-32.

6. Cf. C, 390-391; LLP, 79-80.

7. Leibniz seems committed to some such correlation. See, for example, C, 351.

8. In section III, I explore his reasons for so treating moral entities. The basic idea that requires discussion is Leibniz's view that moral entities "exist by convention" (G/2/101; Mason, 126). I outline how Leibniz came to the conviction that any entity that is composite "exists by convention" and, hence, is ripe for treatment as a logical construction. Thus, he was led (or, so I argue) to this doctrine from *The New System*:

It is only atoms of substance, that is to say unities which are real and absolutely without parts, which can be sources of actions, and the absolute first principles of the composition of things, and as it were *the ultimate elements into which substantial things can be analyzed.* (G/4/482; MP, 121) (My italics)

9. *The Works of Thomas Reid*, edited by Sir William Hamilton, eighth edition (Edinburgh: James Thin, 1895), volume I, p. 323. (For those who lack the Hamilton edition: Thomas Reid, *Essays on the Intellectual Powers of Man*, Essay II, Chapter 19, "Of Matter and Space.")

10. We may note that those who ascribe mereological essentialism to Leibniz ought to take heed of this passage. A nice exercise in Leibniz scholarship would be to explain its relation to the following (more famous) remark of Leibniz on this topic: "But one cannot say, speaking according to the exact truth of things, that the same whole is preserved of which a part is lost . . ." (G/5/220; Langley, 247).