5-30-94

Corporeal Substances and True Unities

1.   In the correspondence with Arnauld, Leibniz contends that each corporeal substance has a substantial form. In support he argues that to be real a corporeal substance must be one and indivisible, a true unity. I will show how this argument precludes a tempting interpretation of corporeal substances as composite unities. Rather it mandates the interpretation that each corporeal substance is a single monad.

Thus I will be supporting the by now traditional interpretation of Leibniz on these matters, that of Russell. He holds that for Leibniz corporeal substances are just souls, monads; call this the "Monadological view." Upholders of the tradition include Couterat, Cassirer, Janet, and Rescher.[1] Important recent commentators, following Broad, have questioned the tradition, and have found an Aristotelian strain in Leibniz's thought.[2] They hold that in at least some of his writings Leibniz defends a view that corporeal substances are composite unities -- composites of soul and matter while yet being true unities. And they hold that, at least in points of detail, this interpretation is inconsistent with the Monadological view. Thus they attribute to Leibniz what I will call the Composite Unity view.[3]

It is hard to state the difference between these two views. As interpretations both have to explicate Leibniz's claims that corporeal substances are both unities and composites, so little said on behalf of one interpretation cannot be re-said on behalf of the other. Thus many of the differences between the two are going to be subtle. Nonetheless there is a clear difference between them. The Monadological view is that each corporeal substance is just a soul. The Composite Unity view is that no corporeal substance is just a soul.

Opponents to the Russell tradition differ on whether Leibniz held both views or just the latter at the time of the Arnauld Correspondence, during the time which has come to be called Leibniz's middle period. All agree that in his late period Leibniz held solely the Monadological view. But what about during the middle period?

Garber and Sleigh think he held both views and that they are inconsistent. Garber says they are two variations on a theme resulting from Leibniz's vacillating only on finer questions.[4] And Sleigh says Leibniz defends the Composite Unity view without in the last analysis holding it.[5] Garber has Leibniz being simply inconsistent. Sleigh has Leibniz being disingenuous, or at least sometimes without warning trying to defend a position he doesn't hold. The traditional interpretation of Leibniz is not being overthrown by either, just qualified and refined. Other commentators reject the traditional interpretation outright. Robert Adams, Stuart Brown, and Catherine Wilson claim that in the Arnauld Correspondence Leibniz holds the Composite Unity view, not the Monadological view.[6]

My contribution is meant to be three-fold: First, I want to explicate Leibniz's argument that given corporeal substances are real, there are substantial forms (souls, monads). Call it the "true unities argument." It entails that only souls are real. Nothing else. Only the Monadological view can be a correct interpretation of Leibniz.

Second, I want to account for the extraordinarily compelling evidence in favor of the Composite Unity view. The view has two sub-views as it turns out, so I consider evidence for each. What divides the view is Leibniz's use of the distinction between primary matter and secondary matter. Thus a corporeal substance is a composite of soul and primary matter on the one hand, and of soul and secondary matter on the other.

For Leibniz a corporeal substance's <u>secondary</u> matter is an aggregate of other corporeal substances united by the soul of the first. These other substances are said to

be parts of the first. The Composite Unity view has it that many things (the aggregate) plus one thing (the soul) equals one thing (the corporeal substance). However, as I will show, Leibniz distinguishes various senses of 'part'. In the strict sense a corporeal substance has no parts. When he says they do he is using a more liberal sense of the term in which a dominant monad has subordinate monads as "parts."

For Leibniz primary matter, in one sense, is an aspect of a single monad -- that monad's "primitive passive power." (LA.153, Gii 120) Call it "individual primary matter." It is indivisible. In another related sense primary matter is an aspect of a collection of monads -- their primitive passive powers taken collectively. I'll call this "collective primary matter." It is extended and divisible. In the case of a corporeal substance, the relevant collection is that corporeal substance plus its secondary matter. The substances in its secondary matter are not really parts of a corporeal substance, so the collective primary matter abstracted from them is not really a part either. Likewise the divisibility of this primary matter is no threat to the indivisibility of the monad. But what about the single monad's own primary matter? The Composite Unity view has it that there is a "genuine distinction between form or soul and primary matter," and/or that there is a "real distinction between a form or soul with matter, and that same form or soul without." (Garber, p. 54) I will show that however genuine, neither is a real distinction in the Scholastic sense, i.e. not a numerical distinction between two real things.[7]

Third I will suggest that the Aristotelian strain in Leibniz's thought can be disassociated from the Composite Unity view, and retained with the Monadological view. A corporeal substances properly so-called is a monad "composed" of entelechy and individual primary matter (i.e. these are aspects of it). Speaking more loosely, however, a corporeal substance is a whole "machine" -- dominant monad plus

subordinate secondary matter -- which is a well-founded phenomenon. That is to say it is falsely but usefully supposed a single real thing. And this supposed thing, like a monad, can be seen as being "composed" of entelechy and primary matter. The latter is also a well-founded phenomenon; it is falsely but usefully supposed real. Why useful? Laws which hold for inter-subjective observation and which allow prediction can be formulated on these suppositions. Fom these suppositions, an Aristotelian picture of reality results.

view of Leibnizian corporeal substance is the natural result of taking seriously his claims that secondary matter has phenomenal unity and that primary matter has phenomenal reality. Phenomenal unity is roughly falsely supposed unity; phenomenal reality is roughly falsely supposed reality. when the phenomena are well-founded the suppositions are useful to make. these particular suppositions are useful for the physicist to make. The result is an Aristotelian view of corporeal substance. The Composite Unity view rightly calls our attention to the Aristotelian strain in Leibniz's thought, while neglecting its basis in false though useful supposition.

2.   Let me give more details concerning the two views, then a sketch of my interpretation:

It had been maintained by Cartesians that the essence of body is extension. But, says Leibniz, if extension is the essence of body then the unity of body is inexplicable. For anything extended is divisible, in fact infinitely divisible. And as Arnauld says and Leibniz agrees "...divisibility is contrary to true unity."[8] (LA.110, G^{ii}88) Leibniz's opinion is that substance requires true unity (LA.120, G^{ii}96) So anything whose essence is extension is not a substance. So the Cartesian theory of bodies precludes their being substances.

Leibniz thinks that if bodies are to be substances then bodies must have substantial forms which in other words are souls. "...the substance of a body, if bodies have one, must be indivisible; whether it is called soul or form does not concern me." (LA.88, G^ii72) There are two ways to understand this talk of the substance of a body.

(1) The Composite Unity view: The substance might be a part that unifies other parts. It might be for example, that five material parts plus one soul equal one corporeal substance. This is the view that Arnauld thinks Leibniz holds.

This interpretation is tempting because corporeal substances are extended, so divisible, so have parts. So Leibniz must have been trying to reconcile being a true unity with having parts. This much is right, of course. But the nature of the reconciliation is what is at issue.

As I will argue, Leibniz's view is motivated in part by the principle that anything with numerically distinct parts is many not one. The Composite Unity view holds that, when the corporeal substance is unified the parts are numerically distinct. By Leibniz's principle a corporeal substance is therefore many. If he were saying that a substantial form makes a true unity of a corporeal substance, then he would be committed to its being both many and not. This would be a blunder caused by forgetting his motivation in giving his solution.9

Additionally, the Composite Unity view does not sufficiently cohere with what Leibniz says, particularly when he explains to Arnauld that it is a misconception. Leibniz's view is rather:

(2) The Monadological view: 'The substance of x' means what x really is. What a corporeal substance really is, is a soul. This is the view I will defend. Prima facie this view is as problematic as the first, for two reasons: First, corporeal substances are really incorporeal. That sounds inconsistent. But actually this is one of Leibniz's main

points, namely that corporeality is phenomenal. That is, matter is a phenomenon; it is supposed real, but falsely. Second, Leibniz thinks that material substances have an infinity of material substances as parts. How can this be translated into talk of souls? The answer will be in terms of an infinite hierarchy of jurisdiction of one soul over many each of which has jurisdiction over many, etc. These answers are part of the traditional view.

The main problem as I interpret it, and the solution on the traditional view, can best be understood by seeing Leibniz as distinguishing three senses of 'part'. First, there are "formally constitutive" parts.[10] (AG.204) According to Leibniz a whole just is its formally constitutive parts. If they are many, "it" is many. Second, there are parts in the sense of dominated members of a hierarchy of souls. Third, there are parts that would result from arbitrary divisions of phenomena (which parts are, strictly speaking, only potential parts). The problem of the reality of corporeal substance, which forces Leibniz to posit souls or substantial forms, forces him to give these various senses to 'part'. Let me refer to the first using 'part', to the second using 'dominated "part"', and to the third with 'phenomenal part'.

In brief Leibniz's argument is: Start with the ordinary understanding of 'part' which is, Leibniz assumes, that parts are formally consititutive. Given that every material part of something material has material parts, any material thing is just several things. Only something immaterial can be a true unity. How then can there be corporeal substances? Each is something immaterial. In what sense then is it corporeal? It has matter in three senses. In one sense, it has matter by having dominated "parts". In another sense it has matter insofar as it is passive (primary matter). In a third sense it has matter by having the primary matter of the "parts" it dominates (collective primary matter). This matter is a phenomenon which has parts in

the third sense: The phenomenal parts of the phenomenon are not souls and do not exist except insofar as they would result from arbitrary division of the whole.

It is the confusion of parts in these three senses that leads one into the labyrinth of the continuum.[11] Distinguishing them leads one out. The problem arises when saying that a corporeal substance is a true unity, arbitrarily divisible, which is formally constituted by its parts. The solution is to say it is a true unity, whose phenomenal matter is arbitrarily divisible, that has dominated "parts" which formally constitute the hierarchy of parts it heads.

Thus the differences between the Composite Unity view and the Monadological view come to this: Concerning secondary matter, the Composite Unity view holds that there is a substance which has substances as formally constitutive parts (or else has a formally constitutive part which is not a substance, but which has substances as formally constitutive parts). The Monadological view denies this. Concerning primary matter the Composite Unity view holds that there is a substance with a non-substance as a formally constitutive part. The Monadological view denies this.

These differences can be summed up by the difference concerning the following principle:

If formally constitutive parts of a whole are distinct then the whole is many. The Composite Unity view denies this; the Monadological view endorses it. I will show that it is assumed in the problem motivating Leibniz's theory, and so cannot be rejected in the solution to that problem.

That is the sketch; now for the details. For present purposes I will only give details of Leibniz's "true unities argument" that given corporeal substances are real, there are substantial forms. I give details of the rest of my interpretation in a longer version of this paper.

I.

3.   The motivation for Leibniz's account of corporeal substance, I will argue, is his

conviction that divisibility is inconsistent with reality. At LA.122, $G^{ii}97$ he says reality

requires unity: "...I cannot conceive of any reality without true unity." At L.A.94, $G^{ii}76$

he says unity requires indivisibility: "Substantial unity requires a complete,

indivisible and naturally indestructible entity..". So reality requires indivisibility. I

will explain his position by breaking it up into three entailments, then examine each:

(i) being divisible entails having parts, (ii) having parts entails not being a unity, and

(iii) not being a unity entails not being real. .

    First, being divisible entails having parts. Leibniz says, "...for the continuum is

not only infinitely divisible, but every part of matter is in fact divided into other

parts..." (LA.95, g77) (See also (LA.122, $G^{ii}98$) In general he is supposing that

something divisible is actually divided. Also in Primary Truths he says "There is no

atom, indeed, there is no body so small that it is not actually subdivided." (AG.33) Also

he speaks of"...the actual division ad infinitum of the parts of matter." (LA.152, $G^{ii}119$)

Leibniz even thought that the potentially separated parts are actually separated. (See

Principles of Nature and Grace, sec. 3, AG.207) But this assumption is not necessary to

the argument at hand. All that mattters is that the potentially separated parts are

numerically distinct. It was a commonplace that separability was a sign of the real

distinction, the distinction between one thing and a second thing.[12] Thus the divisible has

distinct parts. So being divisible entails having parts.

    Note that this is not true for ideal things. Ideal things can be infinitely divisible

without having parts. As Leibniz says:

    In the ideal or continuous the whole is prior to the parts, as the Arithmetical

unit is prior to the fractions that divide it, which can be assigned arbitrarily,

the parts being only potential; but in the real the simple is prior to the groups,

the parts are actual, are before the whole. (G III,622 quoted in Adams, p. 223)

Rather, 'being divisible entails having parts' is true "in the real" -- that is of real

things and of groups of real things. Of course in the end, what makes it true of real things

is that the antecedent is false of all of them; it will turn out that nothing real is

divisible. Leibniz's talk of groups and wholes will turn out not to be talk of real things,

except insofar as it is talk of their indivisible members or indivisible parts taken

collectively.

4.   Next, <u>having parts entails not being a unity</u>. Consider two things, for example the

diamond of the Grand Duke and that of the Great Mogul. (LA.94, $G^{ii}76$; LA.121, $G^{ii}96$)

They are two things, a plurality, when at a distance. Bringing them together does not

make a difference to the fact that they are two things. This is true even if they touch,

even if they are physically joined (for example set is the same ring). (LA.94, $G^{ii}76$)

Likewise the distinct parts of a whole are many things whether or not they are joined

together. Their being distinct makes them many. So the many parts compose a

plurality, not a unity. (cf. also the discussion of the two triangles at LA.88, $G^{ii}72$)

This last move is problematic for us nowadays, especially if we are familiar with

mereology or the calculus of individuals. These purport to be logics of the part-whole

relation. Nowadays we think that the many parts each stand in a part-whole relation to

the single whole numerically distinct from each of them. There are many parts, but

what they compose is one thing.[13]

There are, however, alternatives to this view. One alternative is that the whole

just <u>is</u> the several parts. It is not an additional thing. Being part of the whole on this

alternative view is <u>being one of the several</u>.[14] This is how Leibniz and Arnauld are

thinking of a whole of several parts. It is just the several parts. It is a plurality.[15]

Being several things is confusingly called by Leibniz being "an entity through

aggregation." (LA.120, Gii96)

Now the entailment follows easily given that no unity is a plurality, which seems

uncontroversial. Note that being a unity is being a single thing. It does not mean being a

unified thing in the sense of several things connected together. Rather it is the contrary

of being a plurality. Thus <u>having parts entails being a plurality, which entails not being</u>

<u>a unity, i.e. not being one thing</u>.

Another way to object to this entailment is to appeal to degrees of unity. Maybe

something with parts is not a perfect unity. But it can be unified to some extent and so

be a unity in a lesser sense, an imperfect unity, an inexact unity. Arnauld mentions this

on pp. 110-11 and other places such as p. 134. He thinks we can legitimately call

things one even if they are not perfect unities, e.g. are accidental aggregations,

mechanical unities, unities whose parts contribute to a common purpose, or organic

unities. None are perfect because all have parts. But some have more unity than others.

And that is enough to say that they are one. This is especially true of plants and animals,

but is true even of the sun and a piece of gold.

Both Leibniz and Arnauld use '<u>true unity</u>' interchangeably with '<u>perfect unity</u>'.

However for Leibniz this signifies that what is <u>not</u> a true unity is not really a unity <u>at</u>

<u>all</u>. "The unity of these entities exists only in our mind." (LA.121, Gii97) Degrees of

unity are really only degrees of convenience in thinking of things as unities:

> To be sure, there is sometimes more, sometimes less basis for assuming many
>
> things to be forming a single thing, according to the degree of connexion between
>
> these things, but that is useful only for summarizing our thoughts and

representing phenomena. (LA.121, G^{ii}96)

Again at LA.126 he says that the degree of unity is the degree of appropriateness of

conceiving as a single thing, because of more or less relation between the components. So

aggregates without true unity are for Leibniz unities only by assumption (LA.121,

G^{ii}96), or by the fabrication on our minds.[16] (LA.94, G^{ii}76)

So if the parts are distinct, and the whole is just the several parts, then the whole

is a plurality not a unity, even if for various purposes we suppose it a unity.[17] So

<u>having parts entails not being a unity.</u>

5.   Now consider, <u>not being a unity entails not being real</u>. The basis for this

entailment is the principle that unity goes with existence.

> To be brief, I hold as axiomatic the identical proposition which varies only in
>
> emphasis: that what is not truly <u>one</u> entity is not truly one <u>entity</u> either. It has
>
> always been thought the 'one' and 'entity' are interchangeable. (LA.121, G^{ii}97)

Right now the concern is not whether being a unity entails being real. The concern is

only whether being real entails being a unity. Or precisely whether <u>not</u> being a unity

entails <u>not</u> being real.

Why would Leibniz think only unities are real? He says "...there is no multiplicity

without true units." (LA.121, G^{ii}97) and:

> Entity is one thing, entities another;[18] but the plural presupposes the singular;
>
> and where there is no entity, still less will there be many entities. What
>
> clearer statement can be made? (LA.121, G^{ii}97)

There are two ways to interpret this.

(1) Pluralities exist but they are dependent on unities.

However this interpretation is precluded by the following:

...the composite of the Grand-Duke's and the Grand-Mogul's diamonds can be called a pair of diamonds, but it is merely an entity of reason, and even if one of them is brought close to the other, it will be an entity of the imagination or perception, that is to say a phenomenon... (LA.121, G^{ii}96)

The plurality is not real, it is a being of reason or imagination. Rather we should interpret his claims as:

(2) A plurality is nothing but several unities.

This is how the plural presupposes the singular. This accords with the view of wholes as just the several parts. His view is that a plurality is not one of the things that exists. Rather it is some of the things that exist. This seems innocuous. This is what he means when he says a plurality has as much reality as the unities that compose it. (LA.122, G^{ii}97) Why would this be support for the claim that only unities are real? Because when we think about a plurality we think about it as a single thing. We say a plurality, a pair of diamonds. Leibniz is denying the reality of pluralities thought of as single things. It is pluralities considered as unities that do not exist. They involve a fiction or false supposition, i.e. their unity.

He is certainly not denying the reality of the several unities in the plurality. They are real. If one stops thinking of the plurality as an it, and starts thinking of "it" as a them, then one would be right to think they are real. But it is not. Pluralities taken as unities are what Leibniz thinks are unreal. They are beings of reason, imagination, or perception, because they involve the fiction of unity.

It is a small point and one easily stated. That is why he says "What clearer statement can be made?" (LA.121, G^{ii}97) But it is an extremely important point because we almost always overlook it when reasoning about pluralities. We cannot help but think of a plurality as a unity and reason about it. This is why Leibniz thinks

aggregates are phenomena.

If this is true, though, why does Leibniz call a plurality of unities "substantial"? It is precisely because the plurality considered as many has just the reality of its many unities -- which is just to say, they are each real. For a plurality to be substantial, then, is for it just to be many substances. (cf. Des Bosses, AG.206; Masson, AG.227)

So to summarize, not being a unity entails not being real. This, I contend, is the import of Leibniz's claim, "...I cannot conceive of any reality without true unity." (LA.122, Gii97)

6.   So being divisible entails having parts, which entails not being a unity, which entails not being real. This entailment is the basis of Leibniz's theory of corporeal substance. All that needs to be added is his assumption that corporeal substances are real. I take it that he simply makes this assumption all through, as for instance:

> In the first place , one would have to be sure that bodies are substances and not
>
> merely true phenomena like the rainbow. But once that is granted, I believe
>
> one can infer that bodily substance does not consist of extension or
>
> divisibility... (LA.AC.88, Gii.72)

So the argument is:

> (1) Anything divisible is not real.
>
> (2) Corporeal substances are real.
>
> (3) So, corporeal substances are not divisible.

This conclusion quickly leads Leibniz to the view that corporeal substances are substantial forms, souls, monads. The argument is:

> (4) Anything material is divisible.
>
> (5) So, corporeal substances are not material.

Understanding Leibniz at this point requires a temporary uncoupling of 'corporeal' and 'material'. Think for now of 'corporeal' as having a special sense to be explained, and take 'material' literally. In any event, as he says in A New System of Nature:

> ...in order to find these real entities I was forced to have recourse to a formal atom, since a material thing cannot be both material and, at the same time, perfectly indivisible, that is, endowed with a true unity." (AG.139)

To be real something must be indivisible and so not material.

Leibniz then argues that these real entities are like souls:

> Substantial unity requires a complete, indivisible and naturally indestructible entity...[i.e.] a soul or substantial form after the example of what one calls self. (LA.94, Gii76)

Citing St. Augustine, Arnauld concurs in the conclusion that true unities must be immaterial: "...unity should be indivisible and no body is indivisible."[19] (LA.107, Gii86)

Why soul, substantial form? Because the available alternatives are no good. They are:

> ...mathematical points from which certain authors make up extension, or at Epicurus's and M. Cordemoy's atoms (which you, like me, dismiss), or else one must acknowledge that no reality can be found in bodies, or finally one must recognize certain substances in them that possess a true unity. (LA.120-21, Gii96)

Consider these in turn: First, consider mathematical points. They have no extension so they are not material. Furthermore they cannot even compose something material, so extended. The sum of their measures is zero. (AG.206) Second, consider material atoms that cannot be physically divided. These are not true unities because they still have

distinct parts. For example, the parts where two material atoms touch are distinct from others where they do not. (AG.142) Third, it is assumed at the outset that bodies have some reality in them. So the remaining alternative -- souls -- is the chosen alternative.

What is the advantage of souls over mathematical points? After all the spatial measure of a soul is presumably zero also, so extended things seemingly cannot be composed of souls either. However the advantage of souls is that they have perceptions which <u>can</u> compose extended things, assuming extended things, insofar as they are extended, are phenomenal.

This is an assumption that Leibniz thinks must be made at least for all <u>material</u> extended things (if there can be others).

> ...I believe that <u>where there are only entities through aggregation, there will</u> <u>not even be real entities</u>; for every entity through aggregation presupposes entities endowed with a true unity, because it obtains its reality from nowhere but that of its constituents, so that it will have no reality at all if each constituent entity is still an entity through aggregation; or one must yet seek another basis to its reality, which in this way, if one must constantly go on searching, can never be found. (LA.120, G^{ii}96)

All material things are divisible. (AG.139) Since the parts of material things are material, material things are infinitely divisible. (LA.95, G^{ii}77) Being infinitely divisible, for Leibniz, is having parts, all of which have parts, all of which have parts, etc. In other words it is having no partless parts. Therefore a material thing has no real parts. It is not real at all.

> (6) The parts of material things are material.

> (7) So no material thing nor any part of a material thing is real.

Thus Leibniz will conclude that something material and so infinitely divisible is only a pure phenomenon. (LA.152, G^ii119) It exists only in the mind.[20]

7. My interpretation might yet not convince. One might think rather that corporeal substances are divisible but unified by substantial forms. After all Leibniz talks about their parts. My claim is that a corporeal substance <u>is</u> a substantial form or soul. So a corporeal substance strictly has no parts. Thus I am going to be obliged to explain what Leibniz thinks parts are and also what he thinks matter is.

The opposing interpretation, the Composite Unity view, takes very seriously from the start, the apparent fact that corporeal substance has parts. This interpretation holds that, for Leibniz, a corporeal substance is literally a composite. It is made up of many things. What saves a corporeal substance from unreality is its substantial form or soul. This substantial form confers the unity required for existence. So take several things -- the parts; add one more thing -- the substantial form; the result is one thing, and not several plus one.

There is strong textual evidence for this view of corporeal substances as "composite unities." I want to examine that evidence shortly. But I think the view just cannot be right. Such composite unities would be divisible. Leibniz says that when an animal seems to be destroyed, its soul retreats to a tiny part.[21] So the composite is divisible; the other parts are separable from that part. (LA.125-26, G^ii100) Also he says parts come and go. Again they are separable, so the composite is divisible. (LA.153, G^ii120) Whatever Leibniz's view is, it is motivated by the principle that <u>anything divisible is not real</u>. At LA.122, G^ii97 he says reality requires unity. At LA.94, G^ii76 he says unity requires indivisibility. So reality requires indivisibility. So it would be a blunder for him to explain the reality of corporeal substance in a way that make them divisible. Given a good alternative, an interpretation that attributes a

blunder ought to be rejected.

Let me reinforce this. The Composite Unity interpretation specifically denies that having parts entails not being a unity. So the interpretation denies that being divisible entails not being a unity. But this premiss is one that both interlocuters agree on. Arnauld says "divisibility is contrary to true unity. (LA.110, G^ii88) Leibniz says that "...every substance has a genuine unity, in metaphysical rigour, and that it cannot be divided, engendered or corrupted..." (LA.161, G^ii126)

8.   Furthermore Arnauld explicitly makes a criticism of Leibniz premissed on just this Composite Unity interpretation. And Leibniz explicitly rejects this premissed interpretation. Arnauld says:

> I do not see how your substantial forms can cope with this problem. For the attribute of the entity that is called one, considered as you consider it with metaphysical rigour, must be essential and intrinsic to what is called one entity. Therefore if a particle of matter is not one entity, but many entities, I do not conceive how a substantial form (which, as it is really distinct from it, can only confer on it an extrinsic denomination) is capable of causing it to cease to be many entities and to become one entity through an intrinsic denomination. (LA.134, G^ii107)

This is a rare case in which Arnauld is more prolix and obscure, and Leibniz is clearer:

> As for this other problem that you raise, Sir, namely that the soul joined to matter does not make an entity that is truly one, since matter is not truly one in itself, and that the soul, in your view, gives it only an extrinsic denomination... (LA.152, G^ii118)

This is the objection: Several things are several, whether or not they stand in some

relation to something else. So nothing else can make them one by being added to them. This is an objection to Leibniz's view only if he holds the Composite Unity view. But it seems to me he answers by rejecting that view.

> ...I answer that it is the animate substance to which this matter belongs which is truly an entity, and the matter considered as the mass in itself is only a pure phenomenon or a well-founded appearance, as also are space and time. (LA.152, G^{ii}118-19)

By 'animate substance' here I take him to mean the soul. If he means the unified composite then he is begging the question -- assuming what is at issue. Arnauld has challenged him to explain the unity of the animate substance.

9. But the Composite Unity theorist might object here and say that the animate substance is the unified composite and no question is being begged. For Arnauld objects only that the aggregate of the several parts, excluding the soul, is not made one thing by the addition of the soul. Whereas Leibniz, by 'animate substance' means the aggregate of the parts plus the soul. The inclusion of the soul makes the unity of the composite intrinsic to it. And that is how Leibniz answers the objection that the unity granted by the soul is only extrinsic.[22]

But I reply that if the aggregate of the parts are several things, then the unified composite including the soul is several things. For it is what composes it. To rephrase what was argued above in section 4: If the parts are distinct then the whole is many. What makes the aggregate a plurality is that the parts are numerically distinct.

Let me explain further: In the aggregate of parts plus the soul the parts are either numerically distinct or they are not. If they are distinct then the composite is many not one. If they are not distinct then the so-called composite is indeed one, but lacks parts.

Either way the Composite Unity view fails.

This reply applies also I think to Sleigh's valiant attempt to save the coherence of the Composite Unity view, by distinguishing being divisible from being "deconstructible component-wise." The former is to be incompatible with true unity while the latter is compatible with it. Take a divisible aggregate of corporeal substances; add a substantial form; the result is an indivisible corporeal substance, with true unity, which is nonetheless deconstructible component-wise. But again the components are either numerically distinct or they are not. If they are distinct then the composite is many not one. If they are not distinct then the so-called composite is indeed one, but lacks components. So the fate of deconstructible component-wise composites is the same as divisible ones. They are not true unities and so not substances.[23] Leibniz's own principle precludes an answer to Arnauld's objection.

10.   To resist this conclusion the Composite Unity theorist must deny the principle that if the parts are distinct then the whole is many. But denying it would make Leibniz's discussion of the two diamonds very perplexing. He says, "...it will not be said that these two diamonds compose one substance." (LA.94, G^{ii}76) Why not, if we deny the principle? If a unity can have distinct parts, then why not say the pair of diamonds is a unity -- one with two distinct parts? If we deny the principle, then there seems to be no reason to require a substantial form to provide unity.

The Composite Unity theorist might reply that in the case of the pair of diamonds, the connection between the parts is insufficient for the whole to be a unity with distinct parts Thus the pair of diamonds is a mere aggregate -- a mere plurality. The only connection, the theorist might say, that can overcome this being a mere aggregate, is by being joined by a substantial form. Only in this case is there a unity with many parts.

The connection between the many that entails the existence of the unity which is the whole, is the connection provided by the substantial form.

But this reply by the Composite Unity theorist is subject to an obvious extension of Arnauld's objection. If you add something (the substantial form) to a many (the aggregate), how does this make the larger many (aggregate plus form) into a unity? The general challenge remains: How does _adding_ something to a many result in a unity? Why not just a larger many?

The only answer is that it is a special and mysterious power of substantial forms to do this. This is a _possible_ answer, though weak I think. But note that it is _not_ the answer Leibniz gave. In fact interpreting the answer Leibniz does give to Arnauld, in the way the Composite Unity theorist needs to interpret it, makes the answer unresponsive to the obvious extension of Arnauld's objection. Arnauld asks, how can the substantial form unify the aggregate? Leibniz answers, it does not unify the aggregate, it unifies the aggregate plus itself. Arnauld (supposing he made explicit the obvious extension of his objection) asks, how does the form unify this _larger_ aggregate? Nothing in Leibniz's text is an answer. We can supply the special and mysterious power answer on his behalf, but he does not give it.

A better interpretation would make Leibniz's actual answer responsive. My interpretation does. Arnauld asks, how can the substantial form unify the aggregate? Leibniz answers, it doesn't. The substantial form is the unity I am speaking of (_not_ the aggregate nor the aggregate plus the form).

On the Complex Unity view, the substantial form becomes an _adhoc_ unifying device that provides an inexplicable exception to the above principle that what has distinct parts is many -- a principle that was part of the motivation for appealing to substantial forms. On the Monadological view the principle is exceptionless. Substantial forms are

appealed to precisely because they lack parts. Thus Leibniz says, "Only indivisible substances and their different states are absolutely real." (LA.153, G^{ii}119)

11. The Composite Unity theorist might respond that the Composite Unity is one thing and the several parts are several other things that stand in some relation to it, some relation in virtue of which they are called 'parts'.

But given this response, the so-called "parts" are not parts in the strict sense Leibniz uses in arguing that the divisible is not real. In that argument Leibniz assumes the several parts are what the composite is, rather than several things the composite stands in some relation to. In other works, he assumes that parts are "formally constitutive." (AG. 204) God cannot even by a miracle remove formally constitutive parts and leave the whole intact. But the sort of "parts" the Composite Unity theorist's current response appeals to, would not be formally constitutive. Each is distinct from the whole so God could preserve the whole without them. Given this newly proposed account of "parts" the whole is a true unity, not really a composite of parts in the strict sense. So it is not divisible. Admitting this, the Composite Unity theorist has given up the distinctive feature of his view. He has gone over to a view like mine that the corporeal substance is really something indivisible, which is Leibniz's reason for saying it is really the substantial form or soul.

So either the Composite Unity theorist has Leibniz begging the question against Arnauld, or giving an answer precluded by one of his motivating principles, or failing to give the needed "special power" answer, or else has Leibniz holding a view like the one I attribute to him.

NOTES

1. Bertrand Russell, A Critical Exposition of the Philosophy of Leibniz, 2d. Ed. (London: Allen and Unwin, 1937); Louis Couterat, La Logique de Leibniz (Paris: Presses Universitaires de France, 1901); Nicholas Rescher, Leibniz: An Introduction to his Philosophy (Lanham, MD: University Press of America, 1986), p. 76; Paul Janet, introduction to Leibniz, Discourse on Metaphysics, etc. (LaSalle, IL: Open Court, 1988), p. xii; Ernst Cassirer, Leibniz's System in seinem wissenchaftlichen Grundlagen (Marburg: N.G. Elwert'sche Verlagsbuchhandlung, 1902), p. 408, as quoted in R.M. Adams, cited below, p. 229.

2. C.D. Broad, Leibniz: An Introduction (Cambridge: University Press, 1975), p. 68.

3. As I will argue, Leibniz thinks corporeal substances are monads. So it is misleading to use the term "corporeal substance view", as Sleigh does, to refer to a version of the Composite Unity view. Such usage makes it seem that the monadological view concludes since there are no unified composites, that there are no corporeal substances -- which is false. R.C. Sleigh, Jr., Leibniz and Arnauld: A Commentary on Their Correspondence (New Haven: Yale University Press, 1990), p. 98.

4. Daniel Garber, "Leibniz and the Foundations of Physics: The Middle Years" in Kathleen Okruhlik and James Robert Brown, eds., The Natural Philosophy of Leibniz

(Dordrecht: D. Reidel, 1985), p. 65.

5. That is, Leibniz argues that unified composites could be true unities, without believing that there really are unified composites (rather there are just simples). I concur with Sleigh on Leibniz's ultimate view while disagreeing that Leibniz could have argued that the composite unity view is consistent. As I will argue Leibniz's argument that there are only simples entails the inconsistency of the unified composite view. (Sleigh, pp. 110-115, 119)

6. Robert M. Adams, "Phenomenalism and Corporeal Substance in Leibniz," in French, Uehling, and Wettstein, eds., Contemporary Perspectives on the history of Philosophy, Midwest Studies in Philosophy, vol. 8 (Minneapolis: University of Minnesota Press, 1983), p. 229. Stuart Brown, Leibniz, Philosophers in Context, (Minneapolis: University of Minnesota Press, 1984), pp. 137-43. (Brown thinks he gave the Composite Unity view up later as a result of the Arnauld Correspondence.) Catherine Wilson, Leibniz's Metaphysics (Princeton, NJ: Princeton University Press, 1989), p. 158, 182-85. (Wilson says at p. 192 that after a period of overlap Leibniz finally abandoned the Composite Unity view in favor of the Monadological view during the correspondence with Des Bosses.) G.H.R. Parkinson, introduction to the Mason edition of the correspondence with Arnauld, cited below, p. xxxv.

7. What sort of distinction it is is an interesting and important question, but beyond the scope of this paper.

8. Quotations from the correspondence with Arnauld are from <u>H.T. Mason,</u> ed. and trans.,

<u>The Leibniz - Arnauld Correspondence</u> (Manchester: Manchester University Press,

1967), hereafter LA with the page number, followed by a 'G^{ii}' indicating the page number

in volume II of Gerhardt's edition.

9. If the parts are taken to be substances, then the Composite Unity view contradicts

Leibniz's express statement in <u>Discourse</u> 9. "that one substance cannot be constructed

from two." (AG.42)

10. G.W. Leibniz, <u>Philosophical Essays,</u> trans. by Roger Ariew and Daniel Garber

(Indianapolis: Hackett, 1989), cited with 'AG.' and the page number.

11. He refers to this labyrinth or maze at for instance LA.153, G^{ii}119, or in "On

Freedom" at AG.95.

12. For example see Suarez, <u>On the Various Kinds of Distinctions,</u> trans. by Cyril

Vollert (Milwaukee, Marquette University Press, 1947), sec.II.9, p. 46.

13. For a critique of this view see ...

14. Note this is not the inclusion relation that predication is a species of, for Leibniz.

15. Glenn Hartz characterizes mereology as entailing that the whole is the parts. But by 'is' he must mean an identity-analogue such as composition. "Leibniz's Phenomenalisms," The Philosophical Review 101 (1992), pp. 511-49.

16. Here I like the words chosen by George Montgomery in the Open Court translation: Aggregates without true unity are for Leibniz unities only by supposition (p. 190), or by fiction (p. 161).

17. In section 14 I address Leibniz's apparent bald statement to the contrary at LA.153, G^{ii}120: "Thus parts can constitute a whole, whether it has a genuine unity or not."

18. This may be confused as saying entities are some other one thing. That this is not the meaning can be gathered from the Montgomery translation: "Being is very different from beings..." (p. 191)

19. At this point however Arnauld is not willing to grant that only true unities are real.

20. For a summary see "Primary Truths" at A.G. 34

21. This is to say the soul ceases to have authority over the rest of the parts. See

section 14.

22. I think this is how Sleigh interprets Leibniz's answer. See Sleigh, p. 107.

23. Sleigh himself admits that the distinction was a "slim point" (p. 125) which leads

to a discussion "speculative in the extreme." He was just trying to do right by Leibniz.