



Modern Philosophy

Unity and Reality in Leibniz's Correspondence with Des Bosses *

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ABSTRACT: Leibniz's correspondence with Des Bosses presents students of his thought with a problem. It contains some of Leibniz's longest and most detailed discussions of the nature of substance while at the same time introducing two concepts into Leibniz's metaphysics that continually baffle commentators: *scientia visionis* and the *vinculum substantiale*. The aim of this paper is to explicate the relationship between *scientia visionis*, or God's knowledge by vision, and the *vinculum substantiale*, or the substantial bond, and to show how these concepts are used by Leibniz in the correspondence with Des Bosses to account for the unity and reality of corporal substances. In my view, the *vinculum substantiale* and *scientia visionis* do not represent rival strategies, as they have been recently portrayed in the literature; rather, they work together. But *scientia visionis*, when applied to questions of ontology, gives us a rather vacuous kind of reality, while the *vinculum substantiale* represents a much more significant, albeit problematic, account of the nature of substance.

I. Introduction

Leibniz's correspondence with Des Bosses presents students of his thought with a problem: it contains some of Leibniz's longest and most detailed discussions of the nature of substance, all in the last years of his life, while at the same time it introduces two concepts into Leibniz's metaphysics that continually baffle commentators-*scientia visionis* and the *vinculum substantiale*. The aim of this short paper is to explicate the relationship between *scientia visionis*, or God's knowledge by vision, and the *vinculum substantiale*, or the substantial bond, and to show how these concepts are used by Leibniz in the correspondence with Des Bosses to account for the unity and reality of corporeal substances.

The backdrop for this paper is a recent article by Donald Rutherford, in which it is argued that Leibniz gives his best account of the reality of bodies in the theory of *scientia visionis*. (1) In making this argument, Rutherford sets the doctrine of *scientia visionis* against the doctrine of the *vinculum substantiale*, presenting the two doctrines as rival strategies, as it were, in explaining the reality of corporeal phenomena. In my view, however, the *vinculum substantiale* and *scientia visionis* work together in the correspondence with Des Bosses, *scientia visionis* accounting for the reality of any aggregate of monads that appears as a body or phenomenal unity, the *vinculum substantiale* accounting for the genuine unity of an organism. More generally, *scientia visionis*, as it is used in Leibniz's correspondence with

Des Bosses, is concerned principally with a weak notion of reality and ensures only that phenomenal unities are something more than dreams or have some kind of existence beyond their being perceived by a single finite mind. The *vinculum substantiale*, on the other hand, is concerned with a strong notion of reality and ensures that a being is a genuine unity. I should like to argue that *scientia visionis*, when applied to questions of ontology or the reality of the constituents of the world, can at best give us only a vacuous kind of "reality," while the *vinculum substantiale* represents a much more significant, albeit problematic, account of the composition of the world.

II. *Scientia Visionis* and the *Vinculum Substantiale*

The doctrine of *scientia visionis* was certainly not new to Leibniz. Indeed, it was an essential part of the Scholastic theory of divine foreknowledge, being distinguished typically from *scientia simplicis intelligentiae*.⁽²⁾ According to most Scholastic philosophers, *scientia visionis* represented God's knowledge of actual, existent things and was to be contrasted with God's knowledge of purely possible objects, known by *scientia simplicis intelligentiae*.⁽³⁾

Given this conception of *scientia visionis*, it is somewhat surprising to find Leibniz twice appealing in his correspondence with Des Bosses to the role of God in providing the foundation and reality of corporeal phenomena, saying that the relations of monads within a body or aggregate of monads are made real by *scientia visionis*. In the notes to his letter of February 1712, Leibniz says,

If bodies are phenomena and judged in accordance with how they appear to us, *they will not be real since they will appear differently to different people*. And so the reality of bodies, of space, of motion, and of time seem to consist in the fact that they are phenomena of God, that is, the object of his knowledge by intuition [*scientia visionis*] ... Indeed, God sees things exactly as they are in accordance with geometrical truth, although he also knows how everything appears to everything else, and so he eminently contains in himself all other appearances. (GP II 438, emphasis added)

In other words, if bodies are phenomena and appear differently to different observers, they can be real only if they are perceived by the Divine Intellect, that is, if they are objects of God's *scientia visionis*. Only insofar as God perceives bodies-and by His very nature, He perceives them as they truly are-can they be said to be real or said to be in a certain way. And in a letter sent from Vienna on 24 January 1713, Leibniz writes the following:

If monads are not substantial parts of bodies, however, and composite beings are mere phenomena, it would have to be said that the substances of bodies consist in true phenomena-phenomena, namely, which God himself perceives in them through intuition [*scientia visionis*], as do also angels and the blessed, to whom it is given to see things truly. (GP II 474/L 607-08)

The idea here is that the substantiality or the reality of bodies consists in their being *true* phenomena, where *true* phenomena are the results of God's *scientia visionis*. More generally, we can say that, according to Leibniz, God's perfect understanding of the relations between things gives reality in some sense to those things. The only similarity between this idea of *scientia visionis* and the traditional Scholastic notion seems to be just this: that, when God knows or perceives *actual* things, He knows them by virtue of *scientia visionis*.⁽⁴⁾

Yet Leibniz, I think, advances the idea of *scientia visionis* in part to counter a skeptical challenge. He invokes *scientia visionis* in the notes to his February 1712 letter in an attempt to work out the consequences of the claim in the body of the letter that "either bodies are mere phenomena...or if faith compels us to accept corporeal substances, we must say that the substance consists in that unifying reality that adds *something complete* (and therefore

substantial), though in flux, to those things that are to be united." (GP II 435/AG 198) In the notes, Leibniz turns to the consequence of the view that all bodies are mere phenomena and, conceiving the possibility of skepticism, introduces the concept of God's *scientia visionis*. In other words, the problem that leads Leibniz to invoke a doctrine of *scientia visionis* is how to explain "reality" of phenomena when we have only the varying perceptions of different observers. If, however, a body is a phenomenon of God, if it is an object of God's *scientia visionis*, then the body can be said to be real, for God knows the relations that exist between the constituent monads from which result the body.

The other "method" Leibniz has for establishing the reality of phenomena is that of the *vinculum substantiale*, the substantial bond of monads that, through its addition to the monads of a composite, essentially bonds them together, rendering the monads of a composite a real unity. In the February 1712 letter to Des Bosses, Leibniz says the following:

If that *vinculum substantiale* of monads did not exist, all bodies, together with all of their qualities, would be nothing but well-founded phenomena, like a rainbow or an image in a mirror, in a word, continual dreams perfectly in agreement with one another, and in this alone would consist the reality of those phenomena. (GP II 435-36/AG 198-99)

While in the letter of February 1712 Leibniz seems content with a kind of strong phenomenalism, he does hold out the possibility that we may want more: we might want bodies to be something over and above the phenomena; we might want an additional form of reality to explain the underlying nature of corporeal or composite substance. And it is here that Leibniz invokes the *vinculum substantiale*, not the doctrine of *scientia visionis*. He fails to invoke *scientia visionis*, I believe, because *scientia visionis* answers a different kind of problem about "reality"-namely, the sense in which the phenomena of bodies, perceived differently by different observers, may be said to be real. The *vinculum substantiale*, on the other hand, gives unity and hence reality to a corporeal substance, and it serves to ensure that the phenomena of the natural world are indeed real-where "real" means that what is a phenomenal unity is a genuine unity (a unity per se) as well.

III. Unity and Reality

Within the correspondence with Des Bosses, Leibniz uses the phrase "real phenomenon" equivocally, thus causing some confusion with respect to the interpretation of *scientia visionis* and the *vinculum substantiale*. When Leibniz is speaking of *scientia visionis*, real phenomena are phenomenal unities that have reality solely because they are constituted by genuine simple substances and because they are known by God's *scientia visionis*, the latter distinguishing them from imaginary phenomena. But when Leibniz is speaking of the *vinculum substantiale*, real phenomena will be phenomenal unities whose unity is made real by the *vinculum substantiale*. In other words, the *vinculum* will guarantee that the phenomenon of unity in a body is in fact a genuine unity; the *vinculum* will somehow unify those beings that would otherwise be only phenomenal unities; and in this consists the realization or reification of phenomena. In this sense, then, the contrast will be between real phenomena and mere phenomena.

To say that God's *scientia visionis* reifies relations amounts to saying simply that, God, in knowing everything about the actual state of affairs of the world, knows also everything concerning the relations that obtain between the objects of the world. And *scientia visionis* can be said to reify the actual relations between substances precisely because it applies solely to the actual objects of the world. In this way, Leibniz can avoid the relations that exist between objects in other possible or potential worlds. The sense of "reality" in Leibniz's treatment of *scientia visionis* is ultimately equivalent to "actuality"; to say that a body is "real" is to say no more than that it is an actually existing thing.

Therefore, both *scientia visionis* and the *vinculum substantiale* account in some sense for the reality of corporeal phenomena. And it might seem, therefore, that they represent competing strategies. I should like to suggest, however, that ultimately God's *scientia visionis* provides only a vacuous explanation of the reality of relations and that, *if* Leibniz needs something to reify the phenomena, then that job will be taken by the *vinculum substantiale*. To say that the explanation of the reality of relations by means of *scientia visionis* is vacuous is to point to the fact that, on Leibniz's view, it is trivially true that God understands all the relations between substances. After all, God created the universe and is omniscient. And when Leibniz says that "the reality of bodies, of space, of motion and of time seems to consist in this, that they are the phenomena of God, or the object of *scientia visionis*," (GP II 438) one wonders how much explanatory force this view actually has. For example, let us consider an aggregate, like a herd of sheep, and a genuine unity, like a human being. God, according to Leibniz, will understand the relations that exist between the genuine individuals in an aggregate, for example, spatial proximity, and those that exist between the simple substances of the composite substance or animal, for example, spatial proximity *and* the relation between dominant and subordinate monads. But the important relation that exists between the simple substances of the composite, the relation that makes them a genuine *unum per se*, will be something determined by the natures of the simple substances themselves. God's *scientia visionis* of this relation, however, would hardly seem to contribute to making this relation or this unity real. Indeed, any work that God's *scientia visionis* does would be in a sense superfluous.

If it is the case, as I have suggested here, that *scientia visionis* is used to answer a skeptical challenge, then it seems unlikely that this idea could truly compete with the idea of the *vinculum substantiale* as a means to reify the phenomena. Two issues here need to be properly delineated; namely, the explanation of the *unity* of composite substances and the explanation of the *reality* of composite substances. In my view, *scientia visionis* provides us only with a guarantee of the *reality* of composite substance, and this is done primarily on an epistemological level: while phenomena (of composite substances) may appear differently to different observers, there is a sense in which there is a "fact of the matter"; and this "fact of the matter" concerning composite substances is known by God. On the other hand, *scientia visionis* does not guarantee the *unity* of composite substances because it is at best a reflection of the way the world is. A composite substance, whether an animal or an automaton, could never *not* be an object of God's *scientia visionis*, and so we might wonder how helpful this distinction is for Leibniz. Another way of seeing the explanatory inadequacy of Leibniz's doctrine of *scientia visionis* is by recognizing that *scientia visionis* simply represents God's knowledge of an already existing state of affairs. One can ask: Does *scientia visionis* bring about the unity of an aggregate? Or, is *scientia visionis* simply God's knowledge of a state of affairs that He previously willed? In other words, we *may* say that *scientia visionis* guarantees the reality of an aggregate; but it does not in fact act to *unify* any particular aggregate of monads. This is done by the relation of dominant monad and its subordinate monads and, perhaps, the *vinculum substantiale*. Thus, the unity and reality of bodies will ultimately be explicated on very different levels. Animals, as one subclass of corporeal substances, possess genuine unity in addition to phenomenal unity and reality as well (insofar as they are perceived by God), and other bodies, like rocks, buildings and so on, will possess only phenomenal unity and reality based upon God's *scientia visionis*.

We must distinguish in the end between Leibniz's account of the relations between monads in a phenomenal unity and a genuine unity. The former may be said to be real by virtue of God's *scientia visionis*; the latter by virtue of the relation of domination and subordination between monads in an organism and/or by the *vinculum substantiale*. Much of the difficulty involved in the correspondence with Des Bosses rests in the fact that Leibniz seems at times to lump the category of composite substances (i.e. *per se* unities or entities possessing

dominant monads) with the category of aggregates, calling them both corporeal substances. Of course, on one level, there is little difference between my perception of a table and my perception of an animal—both will be phenomenal unities. But, if we assume that a certain being has a mind, an internal unifying principle, then that being, that animal, will possess genuine unity as well. The question of how the rest of the animal or how the animal's body *belongs* to the mind or dominant monad of the animal is a difficult one and caused Leibniz problems throughout his career, and as Leibniz's correspondence with Des Bosses makes clear, he was concerned to give an account of the "reality" of phenomena and of the relations between simple substances.

As I claimed above, the reality of bodies, or of aggregates and composites in general, is guaranteed in a weak sense by God's *scientia visionis*, and *scientia visionis* is inclusive of the unity and reality of animals, that is, beings possessing a dominant monad. A more helpful picture of the Leibnizian world would therefore be the following:

phenomenal unities e.g. aggregates of monads, or composite substances given "reality" by God's <i>scientia visionis</i>	
genuine unities possessing dominant monad e.g., animals given unity and (hence) reality by the <i>vinculum substantiale</i> ?	not genuine unities no dominant monad e.g., flocks and blocks <i>mere</i> phenomena

In this picture, both *scientia visionis* and the *vinculum substantiale* are responsible for guaranteeing the unity and reality of entities, *scientia visionis* providing a weak kind of reality of aggregates, and the dominant monad (and *vinculum substantiale* perhaps) providing a strong kind of unity and reality of composite substances. In other words, the function of *scientia visionis*, as used by Leibniz in the Des Bosses correspondence, is to ensure that phenomenal unities are real and not merely delusory appearances of an individual perceiver. The *vinculum substantiale* will serve a more specialized function of reifying the phenomenon of unity in a corporeal substance.

IV. Conclusion

It may be argued against the position that I suggest here that the *vinculum substantiale* ought not to be seen as part of Leibniz's mature system, and there is good reason for thinking this to be so. (5) Nevertheless, in the Des Bosses correspondence, Leibniz presents the *vinculum substantiale* as a strategy by which to solve the problem of composite substance, that is, how a composite being can form an *unum per se*. And the object of this paper is merely to analyze how the *vinculum substantiale* is supposed to function in the context of the Des Bosses correspondence. If my account is correct, then it is wrong to suggest that the doctrine of *scientia visionis* represents a better account of the unity of composite substances and the reality of bodies than does the *vinculum substantiale*. Within the Des Bosses correspondence at least, they are employed at different levels, with Leibniz's attempted solution to the problem of the unity and hence reality of composite substances found in his doctrine of the *vinculum substantiale*.

Notes

* The following abbreviations will be used in this paper: A = G. W. Leibniz. *Sämtliche Schriften und Briefe*, edited by the Deutsche Akademie der Wissenschaften (Darmstadt/Leipzig/Berlin: Akademie Verlag, 1923-); GP = *Die philosophischen Schriften von G. W. Leibniz*, edited by C. I. Gerhardt (7 volumes. Berlin, 1875-90. Reprint. Hildesheim, 1965); AG = *G. W. Leibniz Philosophical Essays* translated and edited by Roger Ariew and Daniel Garber (Indianapolis, 1989); L = Gottfried Wilhelm Leibniz, *Philosophical Papers and Letters*, edited and translated by Leroy E. Loemker. (2nd edition, Dordrecht, 1969); RB = G. W. Leibniz. *New Essays on Human Understanding*, translated and edited by Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1981); VE = *Voraussetzung zur Reihe VI-Philosophische Schriften-in der Ausgabe der Akademie der DDR* (10 Volumes. Münster, 1982-91). When there is no reference to AG or L, the translation is my own.

(1) Donald Rutherford, "Leibniz and the Problem of Monadic Aggregation," *Archiv für Geschichte der Philosophie* 76 (1994), pp. 65-90.

(2) There was relatively little dispute regarding this notion as evinced by Goclenius' simple statement of the distinction between *scientia visionis* and *scientia simplicis intelligentiae* in his *Lexicon*. For more on this subject, see Fabrizio Mondadori's paper, "Leibniz against the Society: Futurabilia without Scientia Media," in *Leibniz und Europa: VI. Internationaler Leibniz-Kongreß* (Langenhagen: Gottfried-Wilhelm-Leibniz-Gesellschaft, 1994), pp. 495-504.

(3) Consider the following two passages from Thomas' *Summa Theologica* and *Quaestiones Disputae*: (1) [Deus] habet etiam non entium scientiam. Sed horum quae actu non sunt, est attendenda quaedam diversitas. Quaedam enim licet non sint nunc in actu, tamen vel fuerunt, vel erunt; et omnia ista dicitur Deus scire *scientia visionis*. Quia cum intelligere Dei, quod est ejus esse, aeternitate mensuretur, quae sine successione existens totum tempus comprehendit, praesens intuitus Dei fertur in totum tempus, et in omnia quae sunt in quocumque tempore, sicut in subjecta sibi praesentialiter. Quaedam vero sunt, quae sunt in potentia Dei, vel creaturae, quae tamen nec sunt, nec erunt, neque fuerunt. Et respectu horum non dicitur habere scientiam visionis, sed *simplicis intelligentiae*. (*Summa Theol.* I, q. 14, art. 9.) (2) Deus scit quaedam scientia visionis, scilicet quae sunt, erunt vel fuerunt: et haec non sunt infinita, supposito principio et fine mundi; quae quidem Deus sola dicitur visione videre, quia visio eorum est quae in se subsistunt extra intellectum videntis. Quaedam vero scit scientia simplicis intelligentiae, scilicet illa quae potest facere, quamvis nunquam sint futura; et haec sunt infinita. (*De veritate*, XX, 4 ad 1.)

(4) This particular use of *scientia visionis* naturally has a parallel in Leibniz's theory of relations, in which it is typically claimed that relations are made real by the divine understanding. Consider what Leibniz says in the *Nouveaux Essais*: "Relations and orderings are to some extent 'beings of reason', although they have their foundations in things; for one can say that their reality, like that of eternal truths and of possibilities, comes from the Supreme Reason." (A VI, vi, 227/RB 227) And similarly Leibniz claims in 1715 or 1716: "Beyond substances, or the ultimate subjects, there are modifications of substances, which can be produced and destroyed per se; and then there are relations, which are not produced per se, but result from other produced things and have reality, setting aside our intelligence; indeed they are truly in nobody's thought. Nevertheless, they receive this reality from the divine intellect; without which nothing is true." (VE 1083) While the relations that obtain between monads have their foundation and reality in the nature of the simple substances, it is also the case that these relations have their foundation and reality in the mind of God as well. The problem that Leibniz deals with here is whether certain things, like bread or bowling balls, can be anything more than *mere* phenomenal unities. As Leibniz phrases the problem, if these bodies are mere phenomena, then the

substantiality of the bodies consists in their being true phenomena, perceived by God and hence objects of *scientia visionis*.

(5) See my *Leibniz and the Vinculum Substantiale*, Ph.D. diss., University of Chicago, 1997.